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**Third International Conference on Transformative Education
Research and Sustainable Development (TERSD-2022)**

November 4-6, 2022

Nepal

Proceedings

Edited by
Bal Chandra Luitel
Niroj Dahal
Binod Prasad Pant
Chet Nath Panta

<https://tersd2022.kusoed.edu.np>

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DECLARATION

This is the pre-conference proceedings, so there may be typos and other form of the errors.

Shortly, we plan to publish the conference proceedings from one of the SCOPUS index publications.

TERSD 2022 | Nepal

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Welcome Note

Welcome to the #TERSD-2022! It gives me great pleasure to welcome delegates to the Third International Conference on Transformative Education Research and Sustainable Development virtually this November. We are delighted to be hosting this valued event. As a University which nurtures transformative education and celebrates transnational links, it is fitting that we should host the premier transformative education conference. We are sure your gracious presence during the events makes the conference a successful academic endeavor. It is telling that #TERSD-2022 is a noble venue for sharing research, development, advocacy, and other work relating transformative education research, and sustainable development issues. It is indeed an exciting opportunity for all researchers and practitioners to engage in meaningful participation. We are very happy to share that we are participating in about 78 engaging, informative and inspiring presentations and interacting with more than 450 participants from 10 different countries. I wish you all an exciting and engaging conference with the opportunity to network and create motivating contacts for the future. Thank you everyone for selecting #TERSD-2022 as a platform for sharing your research and practice on transformative education and sustainable development.

Best wishes,

Bal Chandra Luitel, Convener

Foreword

Transformative Educational Research and Sustainable Development (TERSDD) is a scholarly forum that aims to conceive, enact and flourish the depth and scope of transformative capabilities, collaboration, embodied practice and praxis in education and research. Kathmandu University School of Education (KUSOED), Nepal, hosted two previous international conferences on Transformative Educational Research and Sustainable Development (TERSDD). The first conference, held in 2016, promoted theoretically informed discussions on the need for relational ontology and multi-paradigmatic epistemologies in education and research. The second conference, held in 2018, focused on collective transformation through context-responsive wisdom and knowledge heritage. Both conferences contributed to expanding awareness of our situatedness and created a harmonious space by strengthening and enlarging an international network of transformative practitioners.

The 3rd International Conference on Transformative Educational Research and Sustainable Development (TERSDD-22), scheduled for 3 days, will bring together researchers and practitioners to share scholarly narratives about their transformative educational research and pedagogical practices. Scholarly narratives of the predicaments of the status quo, especially hegemonic power misuse in educational processes and systems, will point to the need to expand conscious awareness of our situatedness in the world to critically understand who we are and who we might become as individuals and communities. Our conference seeks to expand the horizon of transformative educational research and practice, considering how local people, communities and practitioners can sustain and thrive their educational research and practice in these challenging times and contexts.

We will explore ways in which research and educational practices, especially in this time of Covid-19, are being framed by the hegemony of technical rationality which upholds a narrowly conceived view of research as proving and educational processes as a chain of cause-and-effect linearity. The agenda of technical rationality is to be found in ongoing policy decisions that frame curricula, pedagogies and assessment practices in both school and higher education. In this socio-political context emergent post/humanistic research and educational practices are being overshadowed and narrowly restricted. The conference will be a place for us to critique this narrowness and cultivate a vision of greater openness. Our notion of openness seeks to promote equity, empowerment and enhanced meaningfulness in educational research and practice.

The conference offers the community of transformative scholars, practitioners and researchers a platform to share their innovative praxis-driven educational research and pedagogical practices in overcoming challenging socio-political contexts. In particular, we consider the present time to be a unique moment to challenge the central thesis of anthropocentric human development and to reimagine the survival of the planet as dependent upon the wise, the benevolent, the caring and the enabling. The wisest person is one who allows their ego to turn into themselves. True human nature goes deep inside to explore answers to pressing questions such as: Who am I during this current isolation, exhausted as I am by the unrelenting news on social media and television channels?

The main theme of the conference emphasizes everyday life lessons learned from the pandemic experience for overcoming adversity and challenge. We are bringing together transformative experiences and visionary practices that can enhance the process of living life in informal and un/structured ways, accepting glocal changes of human relations and ecosystems. Overall, the conference aims to give a consolidated experience of transformative research and practice for *organic* solidarity.

The conference will inspire courageous, sustainable and thriving coalitions among citizen scholars by means of a transdisciplinary professional development space that fosters reflexivity, change and hope. Practitioners of multiple disciplines will be invited to illustrate ways in which they are challenging discriminatory and disempowering policies and practices and are moving towards developing a transformative research culture. Epistemological tensions of inequity and injustice are expected to be addressed through individual and collective presentations (paper, video, and poster), workshops, symposia, and other creative forms of storytelling. We welcome epistemological pluralism via collaborative inquiry, cooperative inquiry, participatory inquiry, arts-based inquiry, and indigenous inquiry methods.

Delegates' body mindfulness will be fostered throughout the conference and beyond. We shall contemplate and take empathic action through exploring meaningful questions to transform self, others and social formations; questions such as: Who are we? What challenges are we facing in this time and context, and why? How can we respect diversity individually and sustain equality and justice in our educational institutions and communities? What are our best policies and practices for sustaining and thriving to ensure equality and social justice? How can we unite with researchers, practitioners and citizens across multiple academic fields and disciplines to address the urgent challenges of our educational and social problems?

See you all in the 3rd TERSD Conference (#TERS-2022) to be held virtually from 4-6 November, 2022.

Bal Chandra Luitel and Peter Charles Taylor
Conveners

#Keynotes

**Sustaining and Expanding the Vision of a Transformative STEAM
Education Research Program through the Framework of Emancipatory
Interest: An east-west Symbiosis**

Bal Chandra Luitel
Professor, Kathmandu University, Nepal

Abstract

The presentation is a showcase of the development of a graduate research program that primarily aims at addressing the widespread problems of culturally decontextualised nature of STEM education that harbours a disempowering (e.g., exclusionary, inequitable and inauthentic) educational process and that has also been challenging the narrowly conceived notion of evidence as the outcome of the ontology of naive realism (Luitel, 2022). The notion of culture has been articulated through its postcolonial avatar of activities performed by people to produce meanings in the context of their lifeworld (Schech & Haggis, 2000). The phenomenon of cultural decontextualization is examined from the colonial goal of educating savages via the sanctified civilizational knowledge of the Home (Maseko, 2018). Although Nepal has never been colonised directly, it looked to British-India in conceiving its modern education curricula in general, and science and mathematics education in particular (Lamichhane & Luitel, 2022). As there might have been a change in the source of curricular importation, the symptom of déjà vu all over again can be seen through low achievement, disengaged learning and decreasing enrolment in science and mathematics disciplines (Taylor, Taylor, & Luitel, 2012).

A research program that radically challenges the assumptions and practices of such a disempowering educational program has been conceived under the auspices of educational research as/for transformative professional development (Luitel, 2018). In such a graduate research program, experienced educational practitioners engage themselves in addressing the broad research question—how can I improve my practice for developing an inclusive, equitable and agentic educational system? The research program has been guided by four key focuses: critical curriculum theory, multi-paradigmatic research design, transformative learning, Eastern Wisdom Traditions, and STEAM education (Luitel & Taylor, 2019; Pant, Luitel, & Shrestha, 2020). Our version of critical curriculum theory draws upon Schubert's curriculum images and the emancipatory interest of Habermas to unpack taken for granted assumptions embedded in thinking and actions of the practitioners. Likewise, the process of unpacking their narratives of lived experiences as educational professionals is guided by critical, interpretive and other emergent paradigms. The design space has further been enriched by critical, arts-based and participatory methodologies, such as autoethnography, narrative inquiry, participatory action research, lyric inquiry, to name but a few (Flick, 2022). The reflexive research process is further informed by transformative learning in which the researcher becomes convictional, action-oriented, and praxis driven in her/his approach to producing emancipatory knowledge. While taking arts as radical response to Cartesian dualism that separates STEM from humanities, we conceive STEAM education as a radical step for envisioning empowering educational processes. In this process, a host of concepts arising from Eastern Wisdom Traditions, such as Lila and Rita shall be employed to discuss the symbiotic nature of educational empowerment (Lamichhane & Luitel, 2022; Luitel, 2019, 2022).

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Transformative Education for Sustainable Development: An Integral Perspective on Moral Agency and Ethical Decision-making in a Diverse and Complex World

Elisabeth (Lily) Taylor
Primary level science education team, Edith Cowan University in Perth, Australia

Abstract

Transformative education holds as one of its tenets that *ethical knowing* and ethical action is of central importance when navigating the intricacies of an increasingly diverse and complex World. Educating students towards sustainable development requires pedagogies and curricula that develop *moral agency* in order to prevent what Albert Bandura, a leading social psychologist, termed *moral disengagement*, which has been identified as creating a lack of care for others that enables amoral action and atrocities. The development of moral agency as the antidote to moral disengagement is developed through education that encourages moral learning based on *values clarification* and *critical self-reflection* as promoted through Transformative Education. The term ‘values’, for some people, raises the question, ‘Whose values?’ Traditionally, people have looked to their own *wisdom traditions* for guidance, yet with our World becoming increasingly connected and complex, this is proving difficult for some. In this talk, I will highlight how *Integral Philosophy* may offer opportunities for thinking about values through what Ken Wilber termed ‘*Vision Logic*’ – a form of logic that promotes unity in diversity which allows for open and respectful communication and dialogue. The aim of this talk is to prepare the ground for the ensuing panel discussion on *Transformative Education: Embracing Diverse Wisdom Traditions to Foster Cultural and Environmental Sustainability*.

Transformation as Becoming: Understanding Implicit and Explicit Transformations in Participatory Research

Prem Phyak

Department of English, Chinese University, Hong Kong

Abstract

My talk addresses a simple question: what does transformation mean in educational research? For this, I analyze what transformative practices entail and what and how researchers can transform educational practices from the bottom-up. Drawing on ‘decolonizing research’ (Tuhiwai-Smith, 1999) and ‘teacher research’ (Cochran-Smith & Lytle, 1999), I present how researchers can collaborate with teachers to transform the learning conditions of students in multilingual, multiethnic and under-resourced school contexts while transforming their own beliefs, ideologies and values about what counts as effective pedagogies. The data for this talk are drawn from two ongoing teacher participatory action research (T-PAR) projects in Nepal. First, I discuss how a personalized narrative writing approach could help teachers empower their students from low-socioeconomic and ethnic minority backgrounds. Second, I discuss some major transformative processes and lessons from a Teachers for Teachers (TfT) mentoring scheme. By analyzing a wide range of data sets such as interviews and multimodal data (e.g., artefacts, writing samples, storybooks and images), I theorize transformation as a process of *becoming* and discuss how participatory research engages teachers in becoming transformative agents. I focus on both implicit and explicit forms of becoming and draw some critical implications of participatory research in educational contexts.

Science Education as a Pilgrimage

Emilia Nhalevilo

Vice Chancellor at Pungue University in Mozambique, Mozambique

Abstract

The focus of my keynote is on the view of science education philosophy as a pilgrimage. In today's world, we are challenged by the crisis of environment as a fact. It is my view that the supremacy of only one worldview – the eurocentrism-is responsible for many of the disasters we are facing today. The fact that one ontology occupied the centre acted as *epistemecide* for the rich ontological diversity. And that reduced our different alternatives to respond to our needs as co-habitants in this world. A pilgrimage is a metaphor I am using to explore what I call a nomadic paradigmatic standpoint in teaching Science. This paradigm invites Science educators to endeavor a journey of understanding of different ways of constructing knowledge derived from different ontologies. In contrast with a sedentary paradigmatic standpoint that creates fixed points, dualistic reasoning and shields segregation, a nomadic view invites the possibility of a harmonious dialogue between different world-views. The nomadic movement is a pilgrimage because, it is not only about moving between *spaces*, but mainly about moving between territories—space is a different concept from territory! Thus, the sacred and spiritual side of the journey. Through a nomadic paradigm, we can move on to visiting sometimes unknown places, like a pilgrim who seeks a higher understanding of himself and of the world. He seeks transformation. Thus, the transformative aspect of the voyage.

Urban education in global south: Social justice and transformation

Suresh Gautam

Assistant Professor Kathmandu University School of Education, Nepal

Abstract

This paper aims at exploring the agendas of urban education in the context of the global south. The historical legacy of urban education has been rooted in the American context of studying urban education as a deficit modal of social justice and transformation. The expansion of the urban areas in the global south has impacted education adversely with the colonial footprint of education for producing human capital suitable for the cities and industry. However, the reforming education in urban areas has not been much prioritized. In this context, the paper deals with urban education locating in two metropolitan cities of Nepal, thereby using a case study to articulate the agendas of urban education and role of state in addressing these issues for social justice and transformation. The research finds that this is the time to reform education in urban areas by valuing diversity in terms of curriculum, assessment, and overall learning outcomes for preparing the conscious and critical citizens in the future. The research concludes that there is a need to develop critical consciousness among students to address the deficit modal of education.

Rapid urbanization in global south is observed as an important driver of economic development and progress, along with uncontrolled migration, resource depletion, severe fuel shortages and the breakdown of law and order (Datta, 2017). This progress brings the potential for greater economic growth, higher living standards, and an expanded role in the global economy. Cities are often places of prevalent poverty and inequality. They can be hotbeds of political instability, given their often very rapid demographic transformation. Powerful Western locus has been part of urban education's history. The roots of urban education go back to the 1920s, when the U.S. government established a series of boarding schools for American Indian children. These schools were intended to assimilate Native American children into the dominant culture. They were also supposed to provide a better education for these children, compared to what they could have received at the reservation schools. The boarding school movement was the U.S. government's largest attempt to educate Native American children up to that time, and it had a significant impact on all American Indian tribes. This root of the American education system was reflected in Nepal's education system when it started private schools back in 1990s. However, urbanization and education also come with their own set of challenges. As a result, it also divides people in terms of access to the kind of school students get opportunities and the kinds of materials they get for their study.

Urban education rather than focusing on society and community for equitable and inclusive education, focuses on migration, exclusion, learning, teacher preparation, and so on. It is a deficit model of education. Cities are characterized by heterogeneity, diversity, inequality, and conflict, which affected the education system of the state. They are places where people coexist but do not necessarily interact or engage with each other. Schools as a miniature of society (City) are the most common meeting places for young people, and it is within these institutions that they are socialized into the dominant culture. How do we understand the role of urban education in cities characterized by heterogeneity, diversity, and inequality? What is the relationship between urban education and social justice? How are the goals of social justice reflected in urban education?

Global economic movements affected the market, values, everyday life of people in the global south. What has been described is the connection between urbanization and its effects on education, not education and its contribution to green and sustainable urbanization. By looking at the city as a learning environment, we can think about how different groups of people experience that environment, and how those differences are structured. It is an equity model, which focuses on migration, inclusion, learning, teacher preparation, and so on.

Education in this regard became a tool of oppression of global south as far as the issues of education co-relate with the issues of the global north education, especially America. This paper is important to raise some pertinent issues to reconfigure urban education in the context of global south by placing it in the center of inquiry.

The transformative influence of my living-educational-theory: Accounts from my classroom

Swaroop Rawal
Sardar Patel University, India

Abstract

COVID-19 pandemic disrupted the educational experiences of billions of students, of all ages, forcing schools, colleges and universities to move their classes online. A large number of faculty and students were unprepared to teach or learn online. Lack of access to digital devices, and connectivity hindered online learning creating a huge gap in learning and leading to unequal education. Teachers struggled to hold their students' attention and maintain an engagement in a classroom setting. All the efforts to provide remote instruction were creditable, but they have been a feeble alternative for in-person learning. In this talk, I try to answer the question, “How can I improve the situation here?” “How can I transform my practice so that I can adequately increase the learning agency of my students to support them in developing lifelong learning skills?” “How can I make my students learning transformative?” I argue that transformation does not come without challenges; for education to be transformative for students, it must engage them in “the process of developing critical methods of thought that will enable them to deal with [their] ever-changing world effectively and responsibly” (Dewe, 1992). Further, I will narrate accounts of how I held myself accountable for my own practices by generating my living-educational-theory (Whitehead, 1989) and by doing so made significant contributions to the growth of educational knowledge.

Returning home: Empowering teaching identity through the landscapes of transformative learning and sustainability education

Yuli Rahmawati

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Abstract

Being empowered and motivated by Parker Palmer's call for teachers to understand the self and their relationship with others, in my research and professional journey I am exploring the values of transformative learning and sustainability education as they impact my teaching identity. As a chemistry teacher educator, I am continuing my commitment with a passion for educating my pre-service chemistry teachers as holistic individuals and social agents to participate in creating a better world. The journey of revealing and reconceptualising transformative values of constructivism, empowering teacher-student relationships, and dialectical thinking is continuing to engage me in creating innovative approaches to values-based learning and is stimulating me as a transformative leader. My values in relation to education as sustainability are empowering me to shift my thinking and actions to develop the agency of my pre-service teachers. In my unfolding identity as a leader in the university's chemistry education program, I am transforming curricula and courses and creating new research and teaching approaches. Practicing the values of transformative learning and education as sustainability is helping me to continually negotiate cultural border crossings. The journey is not easy, however the experience of being neglected and rejected is empowering me to stay on the pathway of a transformative teacher educator.

Transformative STEM educators embracing the arts to develop students' capabilities for resolving global sustainability crises

Prof. Peter Charles Taylor

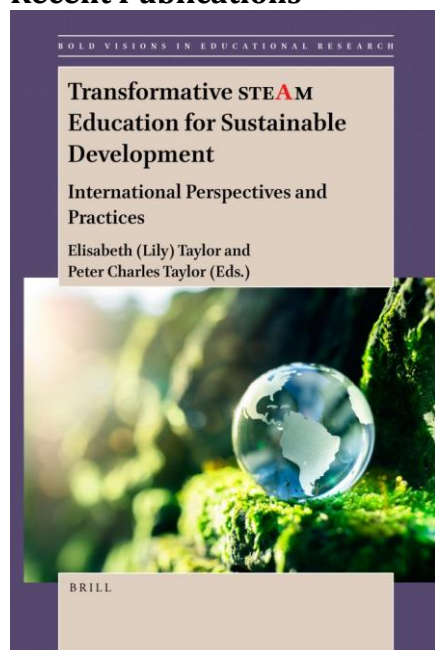
Adjunct Professor of Transformative Education at Murdoch University, Australia

Abstract

We are currently experiencing an era – the Anthropocene – that is unprecedented in the history of our planet. Our addiction to fossil fuels and powerful technologies has dangerously altered the Earth's natural systems, giving rise to well-documented global crises, such as climate change, plastic pollution of the oceans, and tragic loss of biocultural diversity. These crises pose a unique challenge for STEM educators given that STEM disciplinary knowledge and skills are often viewed as the key to solving the world's economic and environmental problems. A popular view that tends to focus narrowly, however, on students learning objectively about the world out there. Such a restrictive view largely ignores the crucial role education can and should (ethically) play in shaping students' attitudes and values – their inner worlds – that fuel their creative moral agency for living and working in sustainable ways.

Across the world, transformative STEM educators are embracing Arts-based methods to prepare young people with special capabilities and values for actively contributing to the sustainable development of a world in crisis. Examples of these innovative approaches are featured in a new book – *Transformative STEAM Education For Sustainable Development* - edited by Elisabeth and Peter Taylor, with chapters by transformative STEAM educators in Australia, Nepal, Indonesia, Hong Kong, Thailand and Philipinnes. In this presentation, Peter will outline several of these innovative pedagogical approaches.

Recent Publications



Taylor, E. (L.), & Taylor, P. C. (Eds.) (in press/2022). *Transformative STEAM education for sustainable futures: International perspectives and practices*. Brill.

Taylor, P. C. (2020). *Embracing Arts education to enrich the worldview of STEM teachers. Non/Traditional Research Outcomes (NiTRO)*. The Australian Council of Deans and Directors of Creative Arts.

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#Arts-based Performances

Helping children with Autism in learning: Using pottery as a form of Art

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Abstract

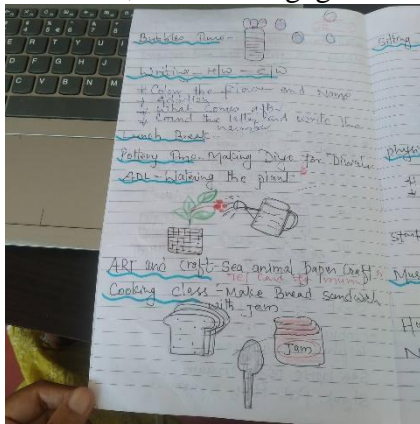
Young children have been engaged in various activities in school, and the trend of engaging children in Art based activities has increased massively during these days. Pottery is one form of arts where children involve in enhancing their fine/gross motor skills. Besides these two physical skills, this paper has discussed other benefits which pottery has imbedded in our young learners having autism spectrum disorder. Autism is a neurodevelopmental disorder, followed by difficulties in social and communication skills. Children with autism are often challenged by low focus and minimum attention span. With the help of pottery, children with autism are able to cope with these major hurdles during the process of learning. The support from the professional pottery artist and collaboration with class facilitator benefit during the learning process. I will share how children with autism are benefitted engaging in pottery activities in a special school. For my proposal presentation, I will discuss the importance of pottery for children with autism. I will discuss how the engagement with pottery is befitting our young children with autism and key learning approaches which have been followed by special education teachers. The qualitative method, a narrative inquiry, has been used to analyze data by interviewing facilitators. Tracking students' Individual Education Plan and their learning outcomes (artifacts) have been documented to see the influence of pottery class with autistic children in a special school. This paper found out that using pottery inside school has helped children with ASD develop these skills and improved restricted and repetitive behavior with continuous support from the facilitators.

Introduction

There are few special schools in the valley for special children. The special schools are run by a team of professional people such as doctors, special educators, well-trained therapist, professional artist and facilitators. The report from center of disease control -revealed that the prevalence of autism spectrum disorder (ASD) is one in 54 children in 2016 and the number is rising worldwide (Knopf, 2020). In the context of Nepal, there has not been any specific data on the number of autistic people, though the number of parents is increasing to look for support (Shrestha & Santangelo, 2014). I got an opportunity to explore one special school in the Kathmandu valley where children with autism are engaged in pottery class. After having a short discussion with the Center head and hearing from her regarding the key characteristic of a child with ASD, such as poor social and communication skills, and uniqueness in terms of symptoms and behavior. I was curious regarding the pottery class and the purpose of keeping it in the schedule of the class routine.

The diagnosis of children with autism has been done by a certified medical person called ADOS (The Autism Diagnostic Observation Schedule) to measure the observational assessment for autistic children (McCrimmon & Rostad, 2014). With the ADOS report child has been sent to various classes as per their required needs and support said by the center head. Briefly talking about introducing pottery class in daily class routine, a typical day at a special school starts with welcome time, where children are welcomed by the facilitators, sometimes using verbal greet and visual aid. Before starting a day, an assembly is conducted using various activities such as morning prayers, where children do pray, then go for warm up to channelize their physical

energy. Everyday teacher does the attendance and encourages children to communicate with teachers and peers. Teachers provoke students when their names are called. They are assigned to perform a few tasks, whether to say Yes, ma'am or Raise their hand or clap their fingers, etc. After this, teachers engage students in subject matter where students learn numeracy, literacy and conceptual understandings. During the first half of the class, students are engaged in academic activities where as per the need of Individual Education Plan (IEP), teachers segregate time for a pottery class. In the fig. no 1, a lesson plan of one class has been kept where students will be engaged in the process of diyo making. Children with autism despite their spectrum faced few similar challenges as part of their neurodevelopment disorder, such as poor social skills, difficulty in communication and imaginative impairment (Frith, 1994). In the context of Nepal, the traditional pottery and commodities associated with it is famous throughout the year, the khutruke (Piggy-Bank) to save money,



Diya, Gamala (Flower clay vase) and other material have been in use from centuries. The pottery of Nepal carries the nation's cultural values, history and social stratification as well. Still, if we happen to see water pot product of pottery and cold. The transferred from a family school in the introducing children's with autism.

pottery artist said gathered evidence and focused for a He said that severe can be work. It is one form of intervention to enhance their imaginative and creative thinking level. According to Alsayouf, Talo and Biddappa (2022) early intervention to autism offers positive development and lifelong improvement.

to visit terai villages, we can made out of clay which is the work for keeping water fresh pottery skills have been another generation to another common wealth. The special Kathmandu valley are Pottery as an integral part of learning, especially for a child



The professional that he has been noticing and of child being concentrated longer period in pottery class. Children with mild autism to benefited from the pottery

Overview: Need and importance of pottery art

In the Nepalese context, our cultural commodities specific to indigenous, Newars and a few local communities have a rich history in pottery art. The pottery art required raw material (raw clay) from a separate area, which has its own attributes to be molded in various shapes and patience to overcome high temperatures. In special school, the management and the professional artist assure the safety for the learning environment. Clay has been collected from Bhaktapur, which is famous for pottery art. And then, the pottery teacher molds it to make it softer. Once the raw clay is prepared as per the concept of the class pottery, teacher introduces the concept, for example if the children are learning about Diyo (light pot), pottery teacher first gives the concept of Diyo to all the students. He demonstrates how it looks like and for what purpose we use these commodities. The joint collaboration with parents and school helps autistic students



make clearer the product they are going to make in the pottery class.

The process of using pottery art inside the class of special class is pre-planned and deals with individual child's need. The main objective of the special school where this research has been conducted is to make a child with autism more

competitive to adjust in social life by making them self-dependent. Young children who are ready to go through all the developmental milestones are monitored and observed minutely. The children with autism often struggle to relate abstract things to their daily life. When children are engaged in making the product which they witnessed and used throughout their daily life, it is easier for facilitator to give the conceptual understanding of the product. For example, if the children are learning the letter f, f for frog, they have seen the frog, watched it, touched it and felt how it looks like and when it has relativity with the pottery art, they tend to understand the concept. Not only in academics, it can be done to introduce alphabet, numeracy and giving concept of real things as well. The students who are engaged with pottery art and develop their own products are seen to have an emotional attachment to the model they made and tried to show it amongst their peers, facilitator and parents which enable their communicative and expression skills.



Children with autism and common challenges they faced often create a barrier to have them necessary skills which they require over the period of time. Introducing pottery art has evident various benefits to the young learners aged 2 to 6. The challenges which child with autism faced have been minimized with the help of pottery art. The facilitators are recorded that children showed great interest in pottery class as they can give a shape to their desired product and have ownership. Young children are always encouraged to develop their fine and gross motor skills. In the session of pottery Art where students are often requested to make their own module gives an opportunity to develop fine motor skills. When the raw clay is prepared by the pottery teacher, he offered the soft clay dough to the children and ask them to make a product related to the theme which his/her teacher tries to teach. Students with autism play with the clay dough, the teacher gives the child an instruction beforehand and show demo of desired model. Students follow the teacher on their first attempt. Facilitators said that this can be a great approach to strengthen their finger muscles. They develop eye hand coordination too. While talking about the demonstration and presentation of the model, young children are provided the

platform to present what they have made to other peers and parents. For safety purpose, continuous monitoring and washing and sanitizing before and after pottery art class has been done. There has been one corner in each class where child's name has been kept to keep his or her belongings, and children are happy and feel responsible to safeguard their model which they made in the classroom. When children are making something on their own, they feel joyous. One of the facilitators said when she sang a song of Twinkle-Twinkle little star, she was not able to describe the concept of star, with the help of pottery, she let her students make star and color it yellow and was able to give a clear concept of the object which they cannot feel and experience themselves.

When the main class teacher was absent, the co-facilitators gave the clay work assignment to the students without prior instruction. The co-facilitator responded that each of her child made something from the clay dough, one child was sipping from a clay, pretending it as if he was drinking tea from a cup and another child was playing with a model she made as if that dough was some transportation vehicles. The co-facilitator said that her children have ability to imagine and create something which is very challenging for a child with autism and she feels so good about it. This can be used as early intervention treatment for autistic children another co-facilitator responded. Early intervention is done in collaboration with parent, teachers, doctors, therapist to enhance child's every development which is very important. The pottery art has more influence in children..

Conclusion

Introducing Pottery Art to young learners with autism or without autism has many benefits in terms of gaining knowledge, skills and values. A child with autism who has poor social skills can take advantage and improve social, communication and have relief from behavior issue. It is a great tool to improve fine motor skills, fostering creativity and teaching them ownership. Students are able to develop communication skills both verbally and in symbolic way toward their close mates. It is also the best way to teach the concept and abstract things, which are hard to teach them with the demonstration. This is one of the powerful tools for early intervention to make child learn and cater to their ability. Our child with autism cannot express their feeling in an appropriate way, with the help of pottery art, it is evident that they develop high self-esteem when pottery teacher and other facilitators work to appreciate their task. They are found to be more responsible for the task they were assigned for.

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Ways of Teachers/Educators' Continuous Professional Development

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Abstract

University-school collaboration for university and school teachers' continuous professional development seems to be an overlooked research area in Nepal. This study aims to explore ways for university and school teachers' Continuous Professional Development (CPD) through a university-school partnership project, Continuing and Professional Education Program (CPEP). With emancipatory intent, CPEP Program Coordinator and university teacher, I, conducted focused group discussions with stakeholders and workshops with teachers adapting action research design. Through the workshops, teachers contextualized curriculum, adapted progressive pedagogical approaches, developed a school-based formative assessment model, strengthened teacher-student relationships, and improved SIP as/for continuous professional development. In this process, I explored the four ways of continuous professional learning/development: analyzing curriculums, adapting participatory assessment, enhancing action research skills, and improving envisioning practices. I adapted poetic inquiry to make sense of my auto/ethnographic story from the reflected information and for performance or presentation.

Keywords: CPD, teacher/educators, auto/ethnography, poetic inquiry

Performance modality

My (teacher/educator) performance modality
It is like a recitation of poetry
for sharing this autoethnographic study.

For instance,
I will narrate the study
like narrative poetry.

Going beyond the conventional envelope
of the research language,
I created poetic language.

Poetry does not necessarily mean poems
also figurative language including pauses,
punctuation, capitalization, space, and so on.

It is not for the deconstruction of the conventional practices
but for giving space for the interplay of sight, feelings, and thinking
between the words, clauses, sentences, pauses...

I request to engage your eyes and ears
This is not only for the readers
It includes your insights, let's cheer.

Yes, I could not avoid the whole structure

Background, introduction and many more
 ‘desk rejection’ was my only fear.

Moreover,
 it is a working paper.
 So, you may find the droplets of
 fractured thoughts and feelings of a teacher
 and teacher educator
 scattered here and there.

You may find it incomplete,
 incoherent,
 but
 I see a complete,
 coherent
 whole in it.

The conventional parts
 Background, introduction ...
 may distract you

But
 this is what
 And where
 practitioner-researchers halt,

Like the way Wordsworth halted
 “the spontaneous overflow of powerful feelings”
 Without poetic expressions.

Background

Although there seems freedom in consultancy
 A teacher/educator sees the common good
 In the university vacancy!

Finds a job as a program coordinator
 With confidence in bridging
 University and school
 with pedagogy of critical-care.

The working context was full of delight
 Finding University context full of light
 Focus was to face the field full of plight.

It was filled with hopes,
 Finding university and schools
 Enough of non/human source.

Although not free from surprise,
 Having needs and strengths varies,

Educators, experts' limited roster size!

But had 4 Cs as a foundation!
Cooperation and collaboration
Co-learning and continuation!

Introduction

One fine morning,
She wakes up with a feeling
“Nobody is understanding!”

Gets up watching a video on her Facebook wall
a progressive teacher educator's call
to work with teachers and all.

Refreshes herself recalling her university class:
“You are not teaching properly in your class!”
How it would be like a proper class?

Prepares meal recalling her Principal's meeting:
Happiness? Our institutional success!
Results? Our academic excellence!

Finishes her meal thinking about better planning
Pedagogy of critical-care
Does a teacher/educator dare?

Problem

My research **issues**
Current **TPD programs**
are not focusing much on teachers' **dilemmas**,
i.e., preparing **students**
for **traditional ways of assessment through progressive pedagogical practices**.

Purpose

This study aims
for
exploring ways
of
university and school teachers'
continuous professional development
through
a university-school partnership project,
Continuing and Professional Education Program
(CPEP).

Methods

Now, sit by my side
And
Listen to me

through your body, all senses
 as
 I am going to tell
 YOU
 Before what?
 How? I crafted a story
 of
 a teacher-educator who works for university-school collaboration
 for university and schoolteachers' continuous professional learning in Nepal.

My dear audience,
 My intent was emancipatory
 And approach was participatory

I conducted FGDs with teacher leaders
 Workshops with teachers
 Self-reflected and with teachers.

Adapting auto/ethnography research design
 Contextualizing curriculum
 Adapting progressive pedagogical approaches,

Developing a school-based formative assessment model,
 Strengthening teacher-student relationships, and
 Improving SIP

Explored the following findings
 Uncovered through poetic analysis
 Documented as poetry.

Findings

Dear audience,
 Now,
 I share
the four ways of
 continuous professional development.

1. Analyzing curriculums

Teacher-7 said,
 “Curriculum?! Honestly saying, I don’t know anything.
 Please teach us EVERYTHING.
 We want to be experts, at least in something.”

Teacher-8 said,
 “Curriculum? No fears!
 I taught for 25 years!
 Progressive approaches? Where’s?”

Teacher-9 said,

“We use the international curriculums!
The national curriculum? Lots of problems!
But what to do, students are facing problems in national level examinations.”

Listening to the reluctant, traditional and progressive teachers,
I realized
carefully mapping and critically analyzing curriculums
may explore
similarities and differences of multiple curricula, bridge them
and explore context-responsive (progressive) approaches
for implementing curricula.

2. Adapting participatory assessment

Teacher-1 said,

“We know we need to have a formative assessment but...not following it.
There is nobody to crosscheck it!
It will go on.”

Teacher-2 said,

“We know we need to have a formative assessment but are not able to follow it.
We want to learn it in detail.
How contextual is it?”

Teacher -3 said,

“We have been adapting formative assessment, long... before CDC.
We developed rubrics, look!
How can we improve it?”

Listening to the reluctant, doubtful and improving teachers,
I think
Participatory assessment
Assessment of self, peer, parent, and teacher
may explore
authentic assessment rubrics
of
Participatory assessment
using cognitive and affective domain
for
enhancing critical and caring skills and values.

3. Enhancing action research skills

Teacher-4 said,

“We want to adapt approaches, progressive
but parents are aggressive.”

Teacher-5 said,

“We see the problems.
They are only our problems.
We can solve our problems.”

Teacher-6 said,
 “Long back,
 I did research to pass.
 I never knew I could do research in my class.”

Listening to the blaming, caring and inquisitive teachers,
 I realized
 Planning, action, reflection, observation
 teachers themselves
 explore and solves their issues
 as/for
 continuous and sustaining professional development.

4. Improving envisioning practices

A teacher-leader-1 said,
 “We have collaborated with the university.
 Now, show us the destiny.”

Teacher-leader-2 said,
 “We have recently decided to move towards progressive education.
 How can we support teachers for their promotion?”

Teacher-leader-3 said, “
 “How can I prepare a future teacher-leader among my teachers?
 What shall I do so that one/two can take a lead within five years?”

Listening to the informing, reforming and transforming teacher-leaders,
 I learnt
 Participatory approach of improving SIP
 May engage critical minds and caring hearts of the stakeholders
 To enhance envisioning
 skills, knowledge, and practices
 as/for
 continuous professional development.

Final reflections

With the query
 How can teachers and teacher educators continuously develop professionally?
 I began my research journey.

With the teachers
 Teacher-leaders
 And teacher educators

Through 4Cs as a foundation
 Cooperation and collaboration
 Co-learning and continuation!

Explored the 4 ways of professional development
 Analyzing curriculum

Adopting participatory assessment

Enhancing action research skills

Improving envisioning practices

As/for continuous professional development.

Concluding I request

Please reflect

And re-act!

#Book Talks

Atomic Habits: An Easy & Proven Way to Build Good Habits & Break Bad Ones

By James Clear

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Abstract

In old days' definition of habits was just limited to behavioural psychology, and considered it to be a sociocultural construct. However, there is no rule of thumb when atomic habits are concerned. Atomic habits is defined as the source of immense power from an extremely small amount of a thing (atom) for a routine work performed. For instance, genetics, economics, politics, philosophy, business, parenting, and miscellaneous factors play more important roles in shaping behavioural affairs. In this context, a book review was carried out to explore the content within the book, major contributions to the academia and its advantages and shortcomings for behavioural transformation. Information collected from the twenty chapters were analyzed and interpreted. Atomic habits is transforming all aspects of society, including commerce, home life, health and science. In education, there is a growing assumption that using good habit is a 'good thing', especially in research where the understanding of skill and concept by students depend upon the facts provided by teachers. To answer this question, we need to understand modern global practice, the four laws, advanced tactics, that are good at communicating ideas efficiently and easily. Finally, the book concludes that every phenomenon can be explained critically through a scientific approach.

Keywords: *Atomic habits, the Four laws, Advanced tactics, Integrated approach, Behaviour transformation*

Essential Book Information

Have you ever wondered what the 'Atomic Habits' is all about? Are you aware of any tools that are crystal clear, really useful and motivating to change your bad habits? Are the terms Goldilocks rule, Two-minute rule, B.F. Skinner variable rewards, pet theory, etc mesmerize you? There are many ideas like integrity reports, personality test, habit contracts, habit tracker template, habit journal and one line per day section, hyperbolic discounting, Ulysses pact, etc, makes a reader a house arrest to finish the entire book divided into seven sections. This book was published by the Penguin Publishing Group in October 16, 2018. It has 320 pages and the author is James Clear. This book focus on the category self -help, personal growth, business and economics.

The book begins with the heading My story, My recovery, How I learned about Habits, How and Why I Wrote This Book, How this book will benefit you. Then comes The fundamentals section that answers a question why tiny changes make a big difference in our lives? There he described briefly about the four laws:- the First law (Cue): make it obvious, the second law (craving): make it attractive, the third law (response): make it easy and the fourth law (reward): make it satisfying for creating a good habit. Author talks about phase 1 to phase 5 for habit shaping with reference to rise early, becoming a vegetarian and starting to exercise step by step. For breaking a bad habit inversion of the first law (make it invisible), inversion of the first law (make it invisible), inversion of the second law (make it unattractive), inversion of

the third law (make it difficult), and inversion of the fourth law (make it unsatisfying) were forwarded.

Each and every laws are back up with few titles, explanation, cases so that reader becomes crystal clear about the what author is trying to justify. Then the section ‘advanced tactics’ is presented with conclusion and ended with Appendix. The author mentioned every details about 20 chapters and suggested ‘What Should You Read Next’ in future after completion of this book. This book has introduced a four-step model for human behaviour under two headings problem phase (cue and craving) and solution phase (response and reward) under the title ‘Little lessons from the Four Laws’. All habits proceed through four stages in the same order: cue, craving, response, and reward. He highlighted about the some interesting insights about human behaviour, from common sense so that these models can be used everywhere. He applied these ideas of science of small atomic habits to business and all human behaviour (especially teenagers parents).The author has acknowledged family members, publisher, every known and unknown helping hands and reader who reads this book honestly. Under the notes section author have included a detail list of all references, citations and notes for each chapter including introduction, conclusion. The index of each word used is provided from A to Z order with the link for easy location.

Major Contributions to Academia

According to Ridder (2014) book review is one of the powerful tools for both qualitative and quantitative analysis. For many of us science means physics, chemistry, biology but there are also social sciences, applied sciences, economics, culture, political science, philosophy etc. examples are provided. This book justifies that every event provided from integrated approach of physical and social science as every phenomenon can be explained scientifically. Think in this way if I avoid cigarette and alcohol then my clothes and breath will smell nicer with long health. Then this saved money can be spend for health, education, life insurance, holiday with family. The next option is to make a habit attractive by pairing it with something you like or enjoy. Instead of smoking, taking banned drugs, play casino focus on sports, music, yoga, creative task for removing bad habits and reframe your mindset. This author tries to prove that this book is worth reading for avid bookworm and even bibilophobic people finds this book useful. From school to university level we were taught that habit is overcome by habit, Dr Seligman’s happiness formula, iceberg effect used in business, psychology and academia. The unending debate of nature versus nurture exists in *Atomic Habits*. James Clear teaches about the importance of accumulating several small habits in order to create self-change. For Lambert (2021) this book discusses habit-stacking, the relationship between our actions and our brain's dopamine levels, and the principle of understanding our identities.

There are many thought- provoking idea, like make it invisible (card game, cigarette, cellphone) if you are addicted towards them. It is because Atomic Habits combines the latest ideas on habit formation and cultivation as genes have been shown to influence everything. This book tries to connect every disciplines and examples including foundation principle of physics (the principle of least action) that describes the laws of universe, motion and relativity. For instance, the cases of Japan famous bullet train, British Cycling Team, airbus shift direction, Allen Carr’s easy way to stop smoking, are well illustrated. The phrase used by business teams ‘ addition by subtraction’ to make overall team stronger by removing people sounds great. All these ideas of system thinking, hand washing in Pakistan, seat belt law, Bryan Harris weight loss, Thomas Frank alarm example, Hebb’s law, etc makes novice reader interesting. An example of a herd mentality, tooth paste, Wrigley chewing gum, safeguard soap, Massachusetts General Hospital cafeteria, Mike Turkish travel guide etc are beautifully portrayed for meaning making. It is because for Browne (2020) this book have destroyed the myth that single theoretical model can solve all problems of educational leadership rather advocate about the

integrated or mixed approach. All these examples are given to change bad habits by forming habit diary, habit loop, habit scorecard, habit stacking formula.

There are few graphs to show the effect of small habits compound over time because author argued that habits are the compound interest of self-improvement. For author every habits are double-edged sword so they can work for person positively or against person negatively. As a result relationship are formed or broken by protest, stress, negative thought. Breakthrough moments are required for a major change that occur in cancer growth, melting of ice and bamboo growth. It is explained in figure as plateau of latent potential and valley of disappointment. As atom is the smallest unit of molecules similarly, atomic habits are building blocks of remarkable result. The examples provided in tabular form seems logical, reliable and valid. For examples

Very easy	Easy	Moderate	Hard	Very hard
Write one sentences	Write one paragraph	Write 1000 words	Write a 5000 word article	Write a book
Open your notes	Study for ten minutes	Study for three hours	Get straight A's	Earn a PhD

So they can also feel the difference between good day and bad day made at decisive moment like a fork in the road. Maximum motivation occurs when facing a challenge of just manageable difficulty. In psychology research this is known as the Yerkes-Dodson law, which describes the optimal level of arousal as the midpoint between boredom and anxiety in shown in graph for Goldilocks rule.

There are three layers of behavior change: a change in your outcomes, a change in your habit, and change in your identity. In reality, the results of our efforts are often delayed. It is not until months or years later that we realize the true value of the previous work we have done. This can result in a “valley of disappointment” where people feel discouraged after putting in weeks or months of hard work without experiencing any results. Author Shnayder-Adams & Sekhar (2021) suggest that radiologist follow a two-minute rule, task prioritization, habit tracking, accountability for healthy life long learners. It is because small habits are more manageable and provides compound benefits over time. With the same habits the result is also same but with better habits anything is possible. Author Healey, Love, & Teitler (2021) encourage these approaches in the classroom outlined by James Clear for teacher and student well-being as a part of educational leadership. Final example is the primary axis of Europe and Asia with east-west orientation whereas for the Americas and Africa is north-south orientation. As a result of this orientation human behaviour changes because as time zone changes, season and climate changes accordingly. The behaviour, culture of hot desert people differs from that of Eskimos.

Advantages and shortcomings

Each and every title is justified and back up with several examples from different disciplines across the globe. Some tips shared like becoming a strict vegetarian, quit smoking might be troublesome for many but this book has provided several alternative solutions. Every piece of information are well cited chapter wise so as to avoid plagiarism and make it master piece of intellectual property. Each and every cases are back up with some reliable theory in order to convince reader. Every chapter is provided with chapter summary in some points so that even busy people can scan whole chapter in few minutes. For instance there are three (outcome, process and identity) level of changes i.e. change and finally leads to paradigm shift in human behaviour. The reader gets familiar with several new vocabulary, theory, law. This author Clear (2018) advocated about atomic leadership model in his books Atomic Habits. The book tries to cover many things like panacea without deeper penetration on subject matter but allows reader for further study at last section. It is like jack of all master of none or little knowledge is

dangerous. Exception cases lies everywhere so majority of readers may find this book useful but for minority it may not work because even failure of classical physics was solved by quantum theory. There is always room for improvement.

Recommendation and Rating

James Clear is a writer, speaker and creator of The Habits Academy focused on habits, decision- making, and continuous improvement. This book has sold over 5 million copies worldwide and has been translated into more than 50 languages. His website, jamesclear.com, receives millions of visitors each month. His work has been featured in places like the Wall Street Journal, the New York Times, Time magazine, and is taught in colleges around the world. The gist of this book is to make positive habits and ditch out bad habits by various methodologies. I recommend this book to everyone because it can transform behaviour because it brings interdisciplinary and transdisciplinary approach in education and research in post COVID paradigm shift which is the theme of this international conference. The only reason I give 4 stars is because this work is a derivative of many popular books with very little original research. This is very useful book and easy to understand.

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How Languages are Learned?

by Patsy Lightbown and Nina Spada

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Abstract

Patsy M. Lightbown and Nina Spada's book *How Languages are Learned* (ISBN 978-0-19-454126-8) was first released in 1993. This best-selling book's fourth edition was released in 2013, and linguists and educators all around the world frequently utilize it. At Concordia University in Montreal, Patsy M. Lightbown has the title of Distinguished Professor Emerita in Applied Linguistics. She has spent more than forty years working on second language acquisition and teaching. She works as a consultant, editor, author, and advisor. Nina Spada, a co-author of this book, is a professor emerita in the University of Toronto's second language education program. Form-focused instruction in SLA (Second Language Acquisition) classes is her main area of research interest. Additionally, in 2015, she served as a visiting professor at Turkey's Boaziçi University. The book's updated material gives educators useful information about current studies on second language acquisition. Additionally, it offers a variety of insightful exercises and thought-provoking questions that are relevant to this area. The book itself is an excellent and trustworthy source that connects language acquisition theory and research to classroom instruction and learning. For educators, researchers, and students, the book *How Languages are Learned*, which serves as a sort of introduction to the major theories of first and second language acquisition, can be a priceless resource.

Keywords: SLA, interlanguage, language acquisition theories, imitation

About the Book

How Languages Are Learned, according to the authors, began as a series of professional development workshops for teachers in Quebec, Canada, where they both spent a significant amount of time working. The book has since appeared in three editions that are considerably removed from its beginnings. The fact that they were still in the early stages of the extraordinary expansion of research in second language acquisition when they were working on the first edition in the 1980s and 1990s adds to their experience. It has become harder to decide what to include when the research was updated for each new edition. Making the book concise had frequently required deciding between influential new studies—of which there are now so many—and the field's classics. At the end of each chapter in this edition, they have annotated "Suggestions for further reading." They encourage readers to peruse the suggested readings and additional materials on the reference list to gain a deeper grasp of the subjects we can only touch upon here.

The fourth edition of *How Languages are Learned* is known for relating language acquisition theory to classroom teaching and learning and deriving insightful inferences for the language classroom from the research. The book is a popular resource utilized by new and proficient teachers, as well as in teacher training programs.

How Languages are Learned does not assume that you are already familiar with research methodologies or theories, in contrast to many introductions to the subject of language acquisition research is the major focus in the book. Its uncomplicated, understandable style and lack of pointless technical jargon have contributed to its status as a standard text for aspiring teachers all around the world.

Why is the book unique for the readers? Well, the answer is its features. The book includes assessments and case studies for the readers to experience a real-world setting for the research concepts. These examples, for the most part, come straight from first- and second-language classrooms. Readers can use the new activity features to give some thought to the research that is being discussed. Questions for Reflection are provided at the conclusion of each chapter to help readers reevaluate the chapter's content by drawing on their prior experiential learning and teaching languages as well as their critical thinking abilities. The book is a recommendation from my side.

I learned some useful tips in language classes by reading the book. Therefore, I suggest this book to educators who are interested in action research in their classes. I'm confident that after reading the book, instructors will start to think back on their lectures, tell their coworkers about their triumphs, and be inspired to publish their findings. It was fascinating to learn how ideas of language acquisition evolved over time. A learner needs exposure to a variety of activities, such as extensive reading to build vocabulary, attentive listening to others to identify the right pronunciation, interacting with constructive feedback, etc., to properly learn a language. The structure and new terminology can also be learned by talking and writing.

Personally, I feel the book empowered me with self-confidence while teaching a second language. The book is valuable for language teachers and researchers interested in second language acquisition. As a language teacher and researcher, the book asked me to reflect on my students' language acquisition process. The book encouraged me to be a researcher in my class. The instances, evaluations, and case studies throughout the book enabled me to relate the theories to real-life experiences in my language classrooms. This book is just the right one for language teachers, teacher trainers, researchers, and educators interested in discovering more about first and second language acquisition.

Last but not the least, I recommend the book, *How Languages are Learned* for anyone interested in the study of second language acquisition and how some of the research's conclusions can be applied to the classroom in a variety of ways. However, the book is not intended for teachers looking for classroom pedagogy, as the authors also hold the view that language learning can be a puzzle that requires scientists to continue working on it; even then, there may be issues with integrating theory and practice (p. 121). The book does not clearly address the optimum teaching strategy for second language learning in a classroom setting. However, it makes general suggestions for language teaching supported by research. But there is still no definite consensus on the best way to teach. In my view, this is both what can make teaching languages challenging and frustrating as well as what makes it exciting and engaging. There is still a ton to learn.

The chapters provide references to recent language learning studies as well as suggestions for further reading.

Extra resources, including Supplementary Activities, Discussion Questions, Chapter Summaries, and video interviews with the authors, are available online at www.oup.com/elt/teacher/hlal.

The book is organized into seven chapters:

Chapter 1

'Language learning in early childhood' (Includes first language acquisition data, explanations of first language acquisition from different perspectives, and updates to research on childhood bilingualism). Here, the authors discuss on the learning process of young children in their early three years, first with morphemes, then negation, and the formation of simple questions. The authors discuss how children develop linguistic competence early and what abilities the children bring to the task. Then they discuss the environmental conditions that

contribute to first language acquisition from behaviorist, innatist, and interactional/developmental perspectives.

Chapter 2

'Second language learning' (Topics covered include: learner characteristics, learner conditions, the language of second language learners, vocabulary, pragmatics, phonology, and sampling learners' language). This chapter brings the reference to second language learning focusing on the development of new knowledge. It provides a glimpse of the contexts of learning a first and second language. The authors begin the discussion with the learner's characteristics and assume that knowledge of a prior language can be advantageous in learning a second language. They bring the reference how second language acquisition takes place in learners through developmental sequences, grammatical morphemes, negation, question, possessive determiners, and so on convincing us that interlanguage second language learners produce and understand changes as they have more exposure to the use of language.

Chapter 3

'Individual differences in second language learning' (Factors discussed include intelligence, aptitude, learning styles, personality, motivation and attitudes, identity and ethnic group affiliation, and learner beliefs. Includes new research on age and second language instruction). They start with the successful/unsuccessful second language learning experiences with the difficulties and how individual characteristics contribute to the theories of SLA. The chapter emphasizes that it is hard to interpret the research results regarding individual differences and relates this to the fact that learner characteristics are not independent. Learners' personalities, general and specific intellectual abilities, motivation and age influence their learnings. Individual differences and learning outcomes are interrelated to each other.

Chapter 4

'Explaining second language learning' (Examines second language learning research from behaviourist, innatist, cognitive, and sociocultural perspectives). They discuss on the second language learning bringing the reference from the theories —behaviourism, innatism, cognitivism and sociocultural perspectives. Krashen's Monitor Model gets ample space, focusing on information processing, usage-based learning, competition, interaction, noticing, input processing, and processability theory. Finally, the authors claim that language acquisition theories contribute insights into teaching languages in classroom situations.

Chapter 5

'Observing learning and teaching in the second language classroom' (Looks at different learning environments and discusses ways of observing and reporting on them). Here, the authors demonstrate the evidences of language learning between the classroom and out-of-classroom learning environments. They claim that languages can be acquired naturally from contact with native speakers in society or learned in the classroom. However, according to the authors, in classroom settings, language learning can be divided into three: natural acquisition, structure-based instructional learning, and communicative instructional learning.

Chapter 6

'Second language learning in the classroom' (Contains six practical proposals for classroom teaching based on research findings and insights). This chapter focuses on six crucial proposals for classroom teaching and interacts with the authors' research findings on how the proposals get interpreted in classroom practice. They bring the reference of classroom practices on the grammar-translation process and audiolingual instruction and propose that language acquisition takes place when learners expose themselves to comprehensive input through listening and reading. Then, they discuss content-based teaching and subject matter. Finally, the authors suggest that it is not necessary to choose between form-based and meaning-based instruction; rather, the challenge is to find the best balance between these two orientations.

Chapter 7

'Popular ideas about language learning revisited' (The authors list and give their personal perspective on some commonly held beliefs about language learning). In this chapter, the authors bring 18 topics related to commonly held beliefs and ideas. The writers believe people learn languages mainly through imitation, parents' correction in grammar, motivation, the number of new vocabulary through reading, teachers' grammar instruction from simple to complex, error correction, interaction, classrooms language learning etc. Therefore, in this chapter, the authors focus on the issue that language learning is affected by many factors. At the end of this chapter, there is a glossary where readers can check the items that have distinct technical meanings in second language acquisition research and second language teaching.

There is a glossary to explain new and technical terms used in the book, and a full bibliography at the end of the book.

The information in the book offers educators some crucial knowledge about current studies on second language acquisition. Additionally, it offers a variety of insightful exercises and stimulating questions that are pertinent to this area. The book itself is an outstanding and reliable source that unites language acquisition theory and research in classroom teaching and learning. It may be a useful tool for language instructors. I as a language teacher, definitely, recommend the book.

Panel Discussions

Globalizing Transformative Insights from Non- western Thinkers Relevant to International Relations and Sustainable Development

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Abstract

Western scholars poorly examine the non-western thinking/insights/philosophies to integrate this into the relevant arena of higher education. In this presentation, an exploration was made around various thinkers from different modern and ancient wisdom traditions from Asia and Africa. The Non-western luminaries were exploring International Relations (IR) in its many forms in their time and context, focussing on inner human qualities; their insights are relevant today and for future sustainable development. Non-western insights/practices have often been neglected in mainstream IR educational programs. The presentation aims to contribute to a wider understanding of international relations in a world where the balance of power is shifting and countries such as India and China are increasingly growing. The presentation will explore selected classical international relation-related transformative insights within Indian, Chinese, Islamic, and African traditions. The topic covered will also include transformative peace spirituality in various wisdom traditions (Hindu, Buddhist, Taoism, Confucianism, and Islam), including philosophical foundations of Kautilya, Mahatma Gandhi, Mother Teresa, Buddha, Ibn Khaldun, Nelson Mandela, Lao-Tze, Confucius' socio-cultural, spiritual and political thoughts and practices relevant for international relations and sustainable development.

Transformative Educators Embracing Diverse Wisdom Traditions to Foster Education for Sustaining Biocultural Diversity: Towards an Integral Perspective

Prof. Peter Charles Taylor

Adjunct Professor of Transformative Education at Murdoch University, Australia

Biocultural diversity is the expression of the bountiful potential of life on Earth. It's what gives vitality and resilience to this planet — our home — and sustains the life systems that sustain us. It's a precious gift to be cherished and nurtured for the future of all life — us included.
(Terralingua, 2022)

An integrative pedagogy is more likely to lead to moral engagement because it engages more of the learner's self... (Parker Palmer, 2010)

At the heart of transformative education is the ethical principle of *relational (or connected) knowing* which focuses on valuing *biocultural diversity* (Terralingua, 2022). As transformative educators across Asia, Africa, Middle East and Oceania, we are exploring the educational implications of this principle by excavating and celebrating the related ethical values and precepts of our own wisdom traditions, including Hinduism, Buddhism, Islam, Christianity, nonsectarianism and indigeneity (Taylor & Luitel, 2019).

For example, the Sanskrit dictum, माता भूमिः पुत्रो अहम् पृथिव्या! [The Earth is my Mother and I am Her son/daughter], refers to a Hindu *ecological worldview* that holds an image of the Earth as Mother and provider, thereby considering humans and other creatures as our siblings, by virtue of being sons and daughters of the same Mother. And Buddhism's emphasis on *co-dependent arising* regards the human- Nature relationship as ontologically relational and respectful of balance in all spheres of life, including the ecosystem. We have been drawing on the ethical values of our diverse wisdom traditions to develop *integral curricular perspectives and pedagogies* that engage our students, teachers and local communities in designing strategies for sustaining local biocultural diversity. For example, in our recent book transformative STEAM educators explain how they have been integrating Arts-based capabilities with STEM disciplinary knowledge and skills to enable students to enrich their inner selves, especially their ethical valuing of biocultural diversity (Taylor & Taylor, 2022).

The purpose of this discussion panel is to enable transformative educators from a range of wisdom traditions to give voice to the unique ethical values embedded in their professional practices. An intended outcome of the discussion panel is the emergence of an *integral perspective* on the compatibility of ethical principles across wisdom traditions for sustaining biocultural diversity (Wilber, 1999). The preceding keynote address by Dr Lily Taylor will explain the concept of an integral perspective.

Moderator - Professor Peter Taylor

I will introduce each panelist, describe their academic background, professional affiliation, and the context of their professional practice. During the presentations, I will encourage you to pose questions in the chat room, and later in the discussion session, I will direct your questions to the panelists.

Abstracts

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Mother-Offspring Relation to Promoting Eco-Justice and Sustainability: A Hindu-Buddhist Perspective

In this presentation, I shall discuss how Eastern wisdom traditions arising from Hindu-Buddhist worldviews contribute to promoting sustainability and eco-justice via the discourse of mother-offspring relations between Planet Earth and the non/sentient beings inhabiting the planet. As per Vedic-Upanishadic texts, the Earth, as the mother is concerned about the well-being of its offspring and requests Creator to protect them from the devilish force which is present inside and outside of the humans. The Earth has been venerated as the Mother, thereby showing utmost bond with her other offspring such as trees and animals. In several Jataka stories, Buddha teaches his followers to treat other creatures with care and compassion as we all have witnessed such qualities on Earth. In accordance with spiritual processes in both Hindu and Buddhist traditions, an undisturbed Earth is very much essential as the sacredness of five primal elements (Earth, Water, Fire, Air, Ether) is rested upon the Earth. For example, if the sanctity of the Earth is disturbed, the sacredness of Water, Fire, Air and Ether is difficult to maintain.

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Sat-Karma: An Integrative Pedagogy for Teacher Educators' Professional Development

In this presentation, I share my multiple perspectives of values based on my PhD research in teachers' professional development adapting participatory autoethnographic inquiry. When I began field engagement in 2017 I explored ethical values, or moral values, as the hidden curriculum that contributed to teachers' Continuous Professional Development (CPD). Perhaps value-based school curricula influenced me. While managing information in one place or while developing my own living theory, I made sense of values as living values that contributed to CPD. Living 'living values' supported me to keep 'I' at the center and to explore my heart chakra as central for CPD. Then while drafting my PhD thesis, inspired by Eastern Wisdom Traditional (EWT) belief systems, I realized satva (goodness), raja (passion), and tama (ignorance) as my inherent qualities (the Bhagavad Gita), or socio-cultural-historical *values*. After my PhD studies, I engaged with nine private schools through a Continuing and Professional Education Program (CPEP), taking the professional role of CPEP Coordinator for three months. My sat-karma (action for the common good) contributed to my professional development as I explored my professional value, *sat karma*, as an integrative pedagogy that added value to institutional values such as quantity, quality, and spirituality.

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Adapting Transformative Research for Excavating/Enhancing Ethical Values of Islam in Education

Islamic societies were part of the Islamic Golden Age from the mid-8th century to the mid-13th

century when they adhered closely to the principles and ethics of Islam. Islamic societies, however, lost their position as the intellectual leaders of the world following colonialism when they became somewhat uncritical followers of Western civilization. It is evident that Islamic nations must adopt modern science and technology if they are to restore their former status in modern society. Though, it is important that this science be "beholden" to Islamic principles and values. I argue that a transformation of the postgraduate education system in Islamic societies is needed, and that transformative educational research can make a major contribution to this process. Critical auto/ethnographic inquiry is considered as a methodological example of transformative educational research. This powerful methodology enables researchers to engage deeply in educational issues with/in their own culture, as well as enables them to think critically, carefully and freely about what they have taken for granted.

Muslims are expected to act ethically towards each other as well as towards animals, plants, and the environment. Ethical values lie at the heart of Islamic teaching. The Prophet (PBUH) said: "None of you is a true believer until you love for your brother what you love for yourself" (Narrated by Al-Bukhari, No. 13 and Muslim, No. 45). He (PBUH) also said: "Verily, making high morals complete and perfect is the main part and aim of my mission" (Narrated by Al-Bukhari, No. 2583). He has also stated elsewhere that: "The best among you are those who have the best manners and character" (Narrated by Al-Bukhari, No. 3559). Ethical values of Islam can be excavating and enhancing within the education system. For example, the Prophet Muhammad (PBUH) taught us to not waste water; and said ". . . even if you were at a running stream" (Narrated by Ibn Majah, No. 425). This is not meant to be taken literally but to foster and inculcate a sustainable habit for our planet. Less water use would assist in maintaining our healthy ecosystems and well-preserved wetland habitats. This principle also extends to protecting the environment; therefore, it is not just about conserving water. Natural resources, such as food, are impacted by food waste. Allah said in the Quran: "Eat and drink, but do not waste by excess. Surely, He does not like the wasteful" (Quran, 7:31). Students who engage in these values of conserving nature would develop a relational knowing and values that reflect the quality of the connection between their ethical Islamic values and the environment they live in.

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Engaging Students to be The Earth Caliph Through Research and STEAM Projects

As a Muslim, I have a belief that biocultural diversity is a gift from Allah to humankind. As mentioned in the Quran Surah Alhujurat verses number 13, Allah says, "O mankind, indeed We have created you from male and female and made you peoples and tribes that you may know one another. Indeed, the noblest of you in the sight of Allah is the most righteous of you. Indeed, Allah is Knowing and Acquainted". The verse not only teaches me that diversity is given but also emphasizes peace. By the discrepancy we are expected to understand each other and to bring peace by the understanding that we come from the same father and mother, Adam and Hawwa (Ibn Kathir). I reckon if we can understand each other and live in harmony then we can work hand in hand as the Caliph (the leader) on this Earth. As mentioned in the Quran Surah Albaqarah verses number 30, "And (remember) when your Lord said to the angels: "Verily, I am going to place on the earth a vicegerent (Caliph)". This sentence was when Allah would create Adam. All Islamic interpreters agree that the meaning of Caliph is related to our main role as humans to save the Earth as representatives of Allah.

What is the consequence of such belief in my role as a mathematics educator in a university? When I did brainstorming with my undergraduate students about their thesis focus, we discussed our role as the Caliph and they came up with ideas of involving cultural contexts and environmental issues in their undergraduate theses. Moreover, when I designed the STEAM

Education unit in my department, it starts with the question: “What are the problems you face in your society and environment that you are able to solve in this STEAM project?”. Students find environmental problems such as waste management, plastic waste, etc., in their local society and find ways to solve these problems through the STEAM projects they design.

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*Transforming Local Communities Towards Local Biodiversity Conservation
 Through a Christian Scientist Perspective*

In this discussion, I narrate my experiences working with local indigenous communities to act on local biodiversity conservation based on a Christian perspective. My ethical and moral standards are deeply rooted in a Christian values system and having faith in God and ‘science’ enabled me to work effectively and harmoniously with local indigenous communities within Mindanao Island, empowering them to act in protecting their ancestral domain, their home. Along the way, our team has faced a challenging problem, especially since Philippine basic education gives more emphasis on understanding Western science (i.e., textbook examples are full of foreign animals), Western perspective (i.e., working in the industry is the best option to have more money in life), achieving the American dream, and so on, with very little emphasis on appreciating our local natural resources and maximizing the potential of Philippine natural ecosystems in achieving a much more sustainable future. Transforming local communities by implementing an inclusive (localized), unconventional, STEAM education that promotes life-long learning, especially for the children of the indigenous communities in Mindanao, is becoming our team’s advocacy rather than an academic necessity.

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Envisaging an Heterotopia to Pave The Way for Transformative Education

This year, we are celebrating the centenary of Mwalimu Julius Nyerere and the centenary of Paulo Freire. My talk is inspired grandly on the ideas of these two men. I will first expose Nyerere’s idea of Ujamaa connecting it to the values (axiology) that I envisage for a transformative education. Nyerere had the idea of Ujamaa, a government system that some called ‘African socialism’. In spite of the flaws that this system may have (like any other system), I recognize the merit of this system as it was grounded in the African context. It was not based on capitalism, imperialism or socialism as the West had conceived. I also take Freire’s reference to the pedagogy of the oppressed as a torch that illuminates the conscientização of the oppressed in order to imagine an heterotopia. An heterotopia is not just another utopia. Heterotopia is a radically different utopia. It is needed to counteract the hegemonic power of eurocentrism.

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*Living Integral Perspective: Learned Lessons from Indigenous Peoples
 In Amazon and Western Australia*

I am an indigenous descendant of the first peoples of Amazonia in Northern Brazil. In my 27-year career, I have worked in 14 countries with different traditional communities as an architect, heritage manager and educator. I develop and implement social and cultural heritage strategies, plans and projects to raise the resilience of local communities, reach inclusive sustainable

development, and preserve their local countries and cultures from the impacts of development projects. Commonly, the people in these local communities are inexperienced concerning Western knowledge. Many of them do not know how to write or read. Notwithstanding, I have learned over the years that despite this, they hold deep wisdom and respect of, and interact holistically with the land, and in their worlds, I feel the ‘illiterate’ person is me - I am the learner. Their wisdom lies in traditions regarding relational concepts such as integral perspective, circular economy and eco-systemic views of their day-to-day lives unencumbered by Western education. Australia is the fifteenth country in my career and the Aboriginal community I am working with has taught me greatly. For this reason, I would like to present what I have learned about integral perspective in practice, based on my experiences with my own Indigenous peoples in the Amazon and my experience with Aboriginal People in Western Australia.

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Embracing Diverse Wisdom Traditions to Foster Education for Sustainability

As a transformative educator, I am challenged to reflect on my own view toward education for sustainability. In this reflection I realize that there are some views that have been influencing the shaping of my own view, including my Catholic beliefs. The Catholic Church views Nature as a system of interdependence of creatures. Each creature possesses its own goodness, which uniquely reflects a ray of God's infinite wisdom and goodness. Hence, humans must respect every creature to avoid any improper use of them that may be in contempt of the Creator and bring terrible consequences for human beings and their environment. Each creation praises God merely by existing, thus we should not take that praise away from God without good reason. Natural things exist not at our disposal but in serving one another. If we use them irresponsibly, or for things that ultimately are harmful to human society, then we are not using them in our service, but to our detriment. This belief greatly affects my ethical views. However, living in diversity reminds me that there are different views in my surroundings that need to be respected when I bring my religious views into my educational practice. There is another view that plays a great role in shaping my ethical views, which is the *ethics of encounter* by Levinas. Levinas view teaches me that we may understand others truly only when we encounter them, particularly ‘in their own face’, without reducing them to the way we want to see them. These views, together with other views attached to my personal background, take me to an ethical view that I call *integrative ethics*. In this view, I see ethics as my response to the existence of *the other* in an inclusive way that is governed by awareness, respect and critical thinking. Broadening the meaning of the other from other humans to other beings resonates within myself as the call of sustainability.

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#Workshop

A workshop on Living Educational Theory Research as Transformative Educational Research and Sustainable Development

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The overall aim and scope – demonstrate how to adopt a Living Educational Theory Research approach to continual professional development, in expanding the horizon of educational research and practice in transforming the hegemony of technical rationality with values of human flourishing. “how do I enhance and explain my educational, values-laden, influences in my own learning, the learning of others and the learning of social formations, to live humanely, and help others do so too?”

Intended Learning Outcomes:

- i) Know how to generate a living-educational-theory and to support others in generating and sharing their own.
- ii) Know how to use an action-reflection planner (e.g. <https://www.actionresearch.net/writings/jack/arlivingtheoryplanner.pdf>) by working in pairs and a group helping others to do so too.
- iii) Understood key concepts and processes e.g. rigour and validity of accounts of living-educational-theories, values experienced as being contradicted by self, others and/or context to develop ways of improving matters, integrating insights from diverse knowledges to improve values-laden praxis...
- iv) Know how to collect data to e.g., understand and improve practice, clarify and communicate personal life-enhancing values embodied in practice and used in multi-media narratives. The values include care, freedom, love and justice.
- v) Know where to find resources and an international community of like-minded professionals to contribute to.

Intended audience – Practitioner Researchers in Higher Education and Schools asking, researching and answering questions of the kind, “How do I improve my professional values-laden practice, contribute to the growth of a global knowledgebase of education and help others to do so too?”

Keywords: Transformative Educational Research; Living Educational Theory Research; Continuing Professional Development; Learning with Values of Humanity.

Collaborative Learning in Classrooms through Living Library

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Abstract

A living library is a pedagogical approach that can be effective in collaborative learning in any school and college. A living library is a concept of giving life to a book, thus leveraging learning among students. Here, students are shared one book each in every class and asked to share their learning with the school community so that other students can come to a reader, and talk about characters, plot, stories and readers' understanding of the context. In a class of 25, every student can read one book a month making 12 in a year and know about other 24 books each month if integrated into pedagogy. A regular reader makes a good learner and helps in the transformative journey of a child is a fundamental assumption of the approach to lifelong learning for continual improvements. Supported by some other events like the human library, Socrates cafe and laptop-to-library, the living library can be a very effective pedagogical tool in every school.

Keywords: Library, Learning, Collaborative Learning, Transformative Learning

Collaborative learning in Classroom through Living Library

Collaborative learning is an approach to transforming a classroom into a learning cohort where each one learns and shares their learning with the other. A Living Library consists of “books” that are Living. Each of these books volunteers to take part in the living library event and share their stories. Unlike a regular library, the Living Library has a person with a book jacket and description.

A “library visitor” can check out “books” on a topic that he/she/they may be interested in learning more about. A reader is one who reads a book and volunteers to share about the book in the living library event. A library visitor is one who visits the living library event and seeks to know more about the book on display by the reader, who gives life to the book. Thus, the living library is an event of sharing about a book one reads and learning about books that the community is reading. Like a living library, a human library and Socrates cafe also encourage leaders to learn from different dimensions and perspectives.

A typical living library is better done twice a year but can also be done every three to four months to inculcate better reading among students, teachers, leaders and researchers.

Take care of the following:

1. Date: Which date of the month do you want to do the event
2. Time; When do you want to be and complete the event
3. Venue: Where do you want to do the event
4. Facilitator: Who is going to facilitate the event
5. Volunteers Who are going to volunteer for the event and what are the books

A human library considers every human as a book and a library thus encourages a reader to learn from human and their life stories, values and perspectives.

A Socrates cafe is a community event to learn from value inquiries on human values and beliefs. Socrates is a post or ripple effect of living library and human library and supports learners' quest to learn from multiple dimensions and approaches but on a theme.

The laptop to library project is technology to support all of the above approaches through the supply of abundant digital resources to learners through open source software and open education resources.

Living Library: Giving Life to Books

Participants

Primary participants of the living library are students but this can be extended to teachers and other staff if volunteered. A teacher or learning library facilitator is one who selects books for the event and motivates readers to read them and share them during the event. This is a book exhibition for readers and visitors of the event. Volunteers can learn about a book, intellectual sharing, event management and hospitality from the event.

Assessments and Measures

Assessment of the learning can be done through observation during the interactions, presentation and confidence during the event. Assessment takers, which can be multiple in any event, can parameterize the interaction and grade them based on rubrics defined and share them among the students.

Human Library: Every Human is a Book to read

Participants

Here the participants can be anyone in the school community. A human library assumes that every human is a book, thus good as a library. Any students can take time with anyone they like, call for a coffee or tea and talk to them. Learn various dimensions of life, their perspectives, and life stories. This is a one-to-one event. The whole idea of the human library is to support learning through human interactions. As a natural learning process, every reader makes their own learning notes and brings in values to their greater understanding.

Assessments and Measures

Assessments can be designed based on self-reflections, portfolios through demonstrations and journal logs. It is advisable for one who takes the assessment to again clearly design the rubrics, expected outcomes and how to justify the learning.

Socrates Cafe: Unfolding Chapters through Value Inquiry in a theme

Participants

Unlike a book or an individual at the centre like in the earlier two approaches, Socrates cafe keeps a learning theme at the centre and encourages human libraries to bring their knowledge and learning to interact among themselves and build learning. Value inquiry into human beliefs is a most natural way that a human learns thus a child. This is a community event around a value inquiry on a theme. Such an event is a beautiful notion of social dialogues and learning interactions.

Assessments and Measures

Here the assessment is based on participation through inquiry. Such an approach encourages learners to participate in inquiry and learn about different perspectives on a common theme thus the learning on a theme can be the outcome and measured among peers. This limits a single interpretation of knowledge and understanding like reading a book by a reader alone. Or, even through interactions with a reader. This is a community and participatory learning approach that can be used in any age group.

Laptop to Digital Library: Making your own digital library

Participants

Laptop to the library is a personal endeavour of every reader to convert their laptop into a reading library through several community efforts. Taking advantage of free and open source software, and open education resources like project Gutenberg, Wikimedia foundation & internet in a box,, one makes an offline learning library, which eventually supports the learning goals.

Assessments and Measures

The assessment here can be based on the level of collections, categories and art of building a library of digital assets, citations and bibliographies with some tools like calibre, Zotero and likewise.

Results of Living Library and Learning Efforts

A living library is a way to bring back the reading culture among students and classrooms and integrate them into teaching-learning. Reading is more long-lasting and meaningful when it is shared through community events like a living library, human library and Socrates cafe..

Outcome 1

A general perception of a piece of work gets more clear through interactions. Living Library gives a platform for the best learning through communications and multiple perspectives.

Outcome 2

A learner and a reader make meaning out of the context and assimilates it into their own life. Unlike the past where book reading was passing information, knowledge and wisdom from a writer to a reader, the culture tries to incorporate a lot of Living values, beliefs, interpretations and life into them through social interactions based on contemporary reading and interpreting and sharing about the book one is reading.

Outcome 3

Living Library promotes reading culture among different stakeholders like students, teachers and managers thus the learning culture is established in the local institution as well.

Outcome 4

Living Library can be used as an effective means of assessment tool. This can be means of a formative evaluation tool as there are a series of such events likely to take part in any academic session. A reader engages in several educational activities thus forming a learning culture bits by bits.

Outcome 5

Reading promotes thinking thus living libraries will support such clubs and groups. Thinking and critical evaluation of thought process is a part of Living growth and maturity.

Outcome 6

The next level to learning is value inquiry and a setup like Socrates cafe is a good opportunity for children to learn from each other. Such a setup needs no prior reading of a book but humans and their perspective about any thematic discussions are considered an artefact like books and incorporates human library concepts into the living library as an event.

Outcome 7

Living library fosters open values and thus a democratic mindset through the practice of the parliamentary process for group decision-making.

Discussion

A living library is a culture, practices around reading from different sources like books (physical or digital), songs, videos, human and interactions. A living library has two other variants like a human library for one-to-one learning from human life and Socrates cafe as a community event for collaborative learning.

The culture of reading can be supported through the means of digital libraries and make it cost-effective through projects and campaigns like laptops to the library.

Living library, Human Library, Socrates Cafe and laptops in the library can be pedagogical tools and project works to encourage learners to learn and manage their learning resources.

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Embracing Critical Reflection as the Process and Product of Transformative Educational Researchers

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Reflective practice can be identified as a critical way in which an individual reflects on their own experiences and practices and learns better improvement options. It is the best way to explore individuals' hidden own identity and a helpful act of discovering his/her unconscious and unexplored potential leading toward modifying ritual knowledge practices.

Further, reflective practice is the practitioner-initiated and practitioner-directed approach. It is linked to inquiry about the individual's practice, reflection, and continuous professional growth. Through this effective means of reexamining and renewing tools, the practitioner examines his/her belief systems and practice and goes for revision for the plan of action with time and context, leading to a better solution. As the reflective practice is about questioning the ongoing practices with W/H questions like – What? Where? Who? When? Why and How? and moving for better solutions by resolving the issues or challenges, practitioners' such seeking would offer a reliable and viable means for taking practice to another level called '*fine-tuning*'. It is the concept of both reflection-in-action means connecting situations with feelings, emotions, and prior knowledge to tackle them, and reflection-on-action means critically analyzing the response to the situation and its consequences. In this way, reflective practice is an '*insider*' or '*self-directed*' approach which demands practitioners' hearts, heads, and hands for professional development. In this workshop, practitioner researchers shall share the use of critical reflection in their research. While Binod Prasad Pant leads the workshop, Bal Chandra Luitel, Harsh Bahadur Chand, Rabina Maharjan and Pritika Basnet share examples as to how they have used critical reflection in their research. Finally, Niroj Dahal draws conclusions of the use of critical reflection in transformative educational research.

Keywords: critical reflection, transformation, reflective-practitioners, practitioner-research

Forms of critical reflection in my research – Bal Chandra Luitel

A host of approaches can be used in embracing critical reflection as a research process. In my work as an early researcher, I employed critical reflection as a means of framing the research problem of culturally decontextualized mathematics education via my lived experience as a learner, teacher, and teacher educator. In this process, I embraced the role of an activist researcher who wished to challenge the didactic pedagogical process that would end up merely informing about the genre of algorithmic mathematics. This form of critical reflection would help identify the researcher's positionality from the outset of the research process (Brookfield, 1995).

In the process of composing narratives of my lived experience as a teacher, learner, and teacher educator, I used critical reflection as a genre of representing my voice. Owing to the notion of *writing as data* (Denzin, 2012), I embraced writing critically reflective narratives as inquiry as a means of challenging the limitations of self-practice and the structure that prevailed around the educational processes. In the process of making meaning of my narratives, critical reflection was a means of providing a rich description of the context in which the narratives

were generated. Such a description was intended to give enough background evidence of the research problem under investigation.

The second most important role of critical reflection in analyzing my narratives was to deconstruct the hegemonic practices embedded in developing the curricula, implementing the chalk-and-talk pedagogy, and justifying the educational process through only one form of assessment of written test. This deconstructive form of critical reflection enabled me to challenge the perpetual normalcy of the status quo of educational systems and processes.

The third and final form of the use of critical reflection was to envision an empowering, inclusive, and authentic educational process and system. Subscribing to Pinar's (2011) idea of *currere* as/for reconstruction, envisioning through critical reflection brings past and future into the present as what Friere calls the pedagogy of hope. Here, the past is represented via the narratives of lived experience, which identify the gaps to be addressed where the future is imagined through the emancipatory ideal of authenticity and autonomy.

Using Critical Reflection as a Process of Coming to Know in Action Research: Harsh Bahadur Chanda

After five years of teaching Real Analysis (RA) at the undergraduate level, I looked back and observed that the overall performance of students is poor in this subject. In addition, I interacted with teachers of different universities/campuses in Nepal and I studied different past studies beyond this country. From these activities, I found that the situation beyond me is not different than my situation. As a result, I thought that something was wrong with the approach to teaching RA. In this regard, I planned to conduct action research to improve their understanding of RA concepts.

To determine the causes behind the poor performance of students in RA, I took a first-phase interview with students. I found the followings: students have a problem with understanding language (of mathematics), applying logical rules, constructing different representations of concepts and translating from one form of representation to another, and connecting different concepts in meaning-making. Moreover, lack of confidence, focusing only on procedural understanding, and belief in the unchangeable nature of definitions were also disturbing factors. Such difficulties forced me to think of the causes behind the situation. As a result, I deconstructed my approach to teaching RA.

Looking from the lenses of social constructivism (Bonder et al., 2001), I realized that I had been assuming students as passive receivers of mathematical knowledge and myself as a source of knowledge, having a duty of transmitting concepts of RA from my head to students' heads. Moreover, I found that there was my deep-seated belief that students can understand best if I present all readymade content of the textbook sequentially in a silent classroom. Because of these assumptions, my teaching approach couldn't give enough opportunity to students to construct different representations of RA concepts and to make meaning of such concepts. I further analyzed why such assumptions were developed in me. I found that it was because of a culture of teaching RA in Nepali Universities where I studied for my Bachelor's and Master's Degree. Based on my reflection, I planned to reconstruct my pedagogical approach with the expectation that students may understand RA concepts meaningfully. I planned to facilitate RA concepts through an inquiry-based learning approach integrating drawing and Geogebra to engage students in knowledge construction and to make them familiar with multiple representations of RA concepts. Accordingly, I facilitated students for 15 days and then I took the interview for the second phase.

According to the action plan, I facilitated the concepts limit of a function, continuity, derivative, and Riemann integral for 15 days. A lesson plan for each day was developed based on the critical reflection (Mezirow, 2009) of the preceding class. In the classroom, students worked in a group; actively participated in making subjective knowledge (Ernest, 1991) of RA concepts; presented their knowledge in the classroom; engaged in the drawing activities;

constructed different representations, and translated from one form to another; and engaged in connecting different parts of the definitions. Reflecting on such activities, I noticed that their understanding was improved, confidence was developed, and each student constructed their subjective knowledge. I realized that my assumptions regarding how students can learn RA concepts could not work. My new belief developed from the critical reflection is that students can learn best if they actively participate in the knowledge construction, if they work in a group, and if they get an opportunity of constructing multiple representations of RA concepts. I got an insight that the role of a teacher is like an involved gardener, where the teacher provides an environment in which students can grow up to their optimal level.

Finally, I took an interview for the second phase. From several interviews, I found that students developed a conceptual understanding of RA concepts. They stated that their belief regarding the role of students had changed from the passive receiver and rote learner to the active knowledge constructor. They also stated that their assumptions regarding knowing RA concepts had been changed from recalling the definitions of the textbook ditto to making meaning and interpreting the concepts in their own words. In addition to this, they stated that their self-confidence shifted from they can do nothing in RA so they can do everything with the support of a teacher. Reflecting critically upon their responses, I realized my new approach to teaching RA concepts is very applicable from both cognitive and affective dimensions (Taber, 2015).

Reflecting critically on her own practice as a Participatory Action Researcher: Rabina Maharjan

The origin of my research is my self-realization of the insufficiency of the present assessment system that is largely based on conventional written examinations. When I started my career as a teacher, I often encountered students not being able to perform in the examination the way they were capable of. When I observed the disappointed faces of those students when they held their marksheet in their hands, a deep dissatisfaction disturbed my mind. I feel like I am not doing justice to students' learning by evaluating them only through the paper-pencil test and ignoring their daily classroom performance. As a transformative learner, I have always been concerned with doing justice to everything I do. Therefore, the need for some reformations in the assessment system in school education has been alarming me for a long time. Therefore, I thought of transforming the students' assessment system in my school by adopting portfolio-based assessment through participatory action research. My participatory action research had two cycles; during the first cycle, the portfolio-based assessment was piloted into only one grade (grade 2), while it was implemented from grade nursery to grade 3 in the second cycle. I do not claim that I became completely dissociated from my position as a headteacher, but throughout the research, I reflected on the power of a head teacher that could be used for the betterment of learning via collegiality and collaboration.

As I anticipated, shifting the practice of assessment from one-time evaluation to continuous evaluation was not easy as it demanded extra time and effort from the teachers. I kept motivating my co-researchers time and again by providing all the resources needed and constantly talking to them, empathizing with their efforts and collaboratively working with them to keep the spirit alive. However, during the second cycle, as I worked with 9 class teachers parallelly in order to implement portfolio-based assessment, it was an up-hill battle for me to let them work simultaneously and at the same pace. Some of the teachers were highly motivated and considered the inclusion and maintenance of students' portfolio as an integral part of their teaching and learning process while some were not motivated and they were doing it just for the sake of showing me. They had neither denial nor acceptance regarding the intervention going on. This is the time when I critically reflected on my own approaches in boarding them into this venture. The participatory approach of my research should have created opportunities for cooperation, collaboration and rapport building between me and my co-

researchers (Arnold et. al, 2022) but I could not do it equally with all my co-researchers. I realized somewhere I could not balance the power relationship with my co-researchers. Then, I started spending more time with those participants informally and talking with them regarding their problems during the implementation of lesson plans. Our light chit-chat started to deconstruct their deep-rooted beliefs and awaken their conscience unknowingly. Soon, my “passive” co-researchers transformed into the most avid participants in my research who contributed to successfully completing the second cycle of PAR.

Throughout my participatory action research, I tried to maintain three tenets of PAR; participation, empowerment, and praxis (Chiu, 2006). Through constant critical self-reflection, I kept on asking myself, what am I doing? how am I doing? why am I doing? who am I to do this? These self-provoking questions made me critically analyze my practices, assumptions, and deep-rooted values and helped ensure my co-researchers' full participation, which empowered them and their empowerment reflected on their praxis. And today, we have developed a culture of celebrating students' work, storing them in their portfolios and considering them as important evidence of their assessment instead of just declaring them pass or fail through a summative examination.

Foregrounding Emancipatory Interest Through Critical Action Research: Pritika Basnet

In my research, I have used critical reflection as a tool to frame the research question. When I say critical reflection, I was/am not just reflecting on my practice, my values and assumptions without questioning them. In fact, I was/am wearing the lens of Habermasian knowledge constitutive interests (technical, practical, and emancipatory interest) to critique mine as well as the colleagues' pedagogical practices. The research began with a reflection on my own practice, my own values, and my own assumptions. At first, I asked questions to myself, such as what I did in my teaching and learning career. In which interest I was aligned? Why did I do so? What I valued the most? What were my prior assumptions? Why was I doing/thinking the way I did?

While answering the above questions, I revealed my pedagogical practices and associated assumptions one by one. Being in the field of nursing education for more than five years, I came to know that my practices and beliefs were aligned towards technical interest because my teaching and learning were more like mechanical/ instinctive, where I just focused on reproduction of knowledge (Grundy, 1987). I was just informing and depositing the knowledge from my head to the student's head. However, a part of this was guided by teacher centered curriculum of my/our community of practice. In fact, I was following the trend which I have witnessed throughout the entire learning journey i.e., teacher-centered pedagogy is the only way to impart knowledge and the summative paper-pencil test is the only way to assess the students' achievement.

After critical reflection, I came to realize that I need to shift my practices towards the practical and emancipatory interest, which argue communicative action, going beyond the false consciousness and hegemonic ideology, providing ideal speech situation, developing critical consciousness, empowering learners to become independent learners, and envisioning future (Grundy, 1987; Taylor & Campbell-Williams, 1992). Nowadays, I have begun to reform my practices toward practical and emancipatory interests. However, the whole nursing education system needs to be changed, and I needed to explore what other colleagues (nursing faculties) are doing in their daily practices and also explore their perceptions regarding student-centered pedagogy. So, the answers to the following questions were explored: what are the existing pedagogical practices of nursing faculties? And how do nursing faculties perceive the notion of Problem Based Learning (PBL)?

As I was/am conducting a focused ethnography, I observed the classroom practices of six nursing faculties and conducted interviews to explore their existing pedagogical practices as well as their perception of problem-based learning. Throughout the interview, the guiding

questions were allowing nursing faculties to reflect on their pedagogical practices, and I am critiquing their practices wearing the lens of Habermasian knowledge constitutive interests.

Conclusion

An act of critical reflection is a transformative initiated by the conscious individual who sought improvement and progress. The act of critical reflection helps individuals to be conscious of ongoing practices. It is because, knowingly or unknowingly, there may be many taken-for-granted assumptions and different hegemonic practices that are responsible for creating our deep-seated beliefs and practices. In general, critical reflection has been a hallmark in the research programs, thus, opening several possibilities for better educational practices by envisioning several possible alternatives within systems and individuals.

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Eka Deshma: Storytelling as an Innovative Pedagogy in English Language Classrooms

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Abstract

According to Lawtie (2020), storytelling is a versatile and powerful teaching technique to allow students to express themselves freely and creatively with fun and motivation; creation and imagination; a sense of achievement and practice of oral fluency and extended discourse. This workshop engages the participant teachers in the art of storytelling and the activities that emerge out of it to enhance their awareness about the art of storytelling, experience of sharing and listening to stories, produce a group output on the importance of storytelling in ELT classrooms and then take away three creative response methods: miming, freezing and drawing reflection. Hence, the workshop aims at not only making a small difference in preserving the tradition and heritage of storytelling in Nepal, but also contribute to the ongoing discourse of the ELT in Nepal by establishing its relationship with storytelling and thereby contributing to the transformation of ELT in Nepal. The facilitator, by sharing her knowledge of storytelling with her ELT practice community of her country aims to grow with them too.

Keywords: Storytelling, English language teaching, discourse, practice community

Workshop aim and scope

Storytelling, like in most of the children of Nepal is rooted from my childhood and the initial days of my professional engagement with storytelling. Hence, I would like to take the opportunity of this section to excavate my personal and professional stories about growing up with storytelling to substantiate aim and scope of my workshop on the same.

My maternal grandmother, in the 80s to 90s

'Eka desh ma, euti Sunkeshari Rani bhanne assadhari raamri keti thi. Usko lamo, baklo ani sunko kapal le uslai sabai bhanda sundari banauthyo.' (Once upon a time, there was a very beautiful girl named Sunkeshari Rani. Her long, thick and golden hair made her the most beautiful of all.)

Her rough, yet loving and caressing hands

Her wrinkled, yet cute smile

Her old, yet glittering eyes

And her fascinatingly changing facial expressions,

Soft and loud, high and low voice tones as the story unfolded.

Oh! How I and my siblings loved to hear her stories, more than our schools' lessons.

My experiences with storytelling tells me that it is an art form. Heathfield and Goksu (2019) say that storytelling is, without a doubt, the oldest of all arts (p. 190). So, the oldest time I reckon myself getting introduced to this form of art can be anytime during the late 1980s and the beginning of the 1990s during my childhood and most probably the first person who introduced me to this interesting genre and awakened my love for it was my maternal grandmother, Ms. Thapa. The memory so afresh, as if yesterday, I vividly remember that it was almost every night during my three months' long winter vacation in my maternal house, in Dharan, I heard her tell the story of 'Sunkeshari Rani' and many others; cuddled in her lap and lost in the world of imagination. She is indeed the best storyteller. We used to eagerly wait for the winter vacations

and then for its nights full of stories; fascinated and mesmerized by the artful narrative of our grandmother. We used to take turns to sit or sleep beside her when the story was going on. When she said, 'Ekadeshma euti Sunkeshari bhanne asaddhai ramri keti thi' (Once upon a time, there was a very beautiful girl named Sunkeshari), we used to get excited that the story had begun and we got cosy around her. The golden hair that made her so beautiful, her loving family and cheerful life gave us the background of the story. Then, the eventual movement of the plot to the time when the main problem hit her life: the loss of one strand of her golden hair, her parents' promise to marry Sunkeshari to the one who found the lost hair, the dramatic finding of the lost hair by her own elder brother and her run away from home upon the discovery of the truth helped us understand about problems in our lives.

Nevertheless, the happy ending when Sunkeshari gets married to a handsome prince and gets united with her brother conveyed the message that we have to work and try to solve our own problems. When I reflect on it today, I understand that this story and many other stories told by my grandmother educated me about so many things and endowed me various skills rather than just about stories. Firstly, the basics of the story: beginning, middle and end and its essential parts like exposition: setting (temporal, spatial), characters (major, minor, protagonist, antagonist), rising action (the conflict), climax (peak of the problem), falling action (characters work to solve out the problem) and resolution (the ending). Second thing they might have taught me are the morals: victory of good over bad, sharing is caring, importance of hard work etc. and other important parts of human life like society, family, religion, culture and so on. Additionally, storytelling has helped me develop language learning skills: vocabularies, grammar, listening, speaking, pronunciation, writing, sentence structure (Ellis and Brewster, 2014). It is thus a creative art form that addresses the needs of ELT learners in variety of aforementioned ways (Gurung, 2021).

Another story brings forth the beginning of my professional engagement with storytelling: Clap, Clap, Clap...that woman, Clap, Clap, Clap...that woman Clap, Clap, Clap...her eyes Clap, Clap, Clap became Clap, Clap, Clap the eyes of a leopard, Clap, Clap, Clap....that woman, Clap, Clap, Clap...that woman Clap, Clap, Clap...her teeth Clap, Clap, Clap became Clap, Clap, Clap the teeth of a leopard, and her hands Clap, Clap, Clap...became, Clap, Clap, Clap...the paws of a leopard, Clap, Clap, Clap... and her back Clap, Clap, Clap became Clap, Clap, Clap the back of a leopard...Clap, Clap, Clap...and her skin Clap, Clap, Clap...became Clap, Clap, Clap...the fur of a woman...and her heart became the heart of a leopard (Blake, 2016).

It was sometime in the beginning of the year 2016 when in my MPhil academic writing class, I was introduced to a wonderful storyteller, 'Jan Blake' by our facilitator of Academic Writing course in the first semester, who exhibited us through her story of 'Leopard woman' how storytelling has not only become a popular profession but is also an effective educational tool to teach expressions, pronunciations, vocabularies, listening, speaking and many other language skills. In this regard, (Heathfield & Goksu, 2019) affirm, "There are many advantages in putting storytelling at the centre of what we do and in organizing our teaching around it" (p.187). It creates fun in English language classrooms.

Hence, I explored other stories of her which were: The Fisherman: A tale of passion, loss, and hope; Story of Pumpkin, etc. in YouTube. Eventually, that exposure and exploration germinated the seed of a quest for storytelling in my mind. I gradually comprehended that I could use storytelling for enhancing various English language skills of my learners like listening, speaking and writing. Similarly, later I thought to use it in my classroom and sometime later it also got connected to my research.

This takes me back to the first time I was introduced to storytelling professionally in the year 2018, at 52nd IATEFL Conference's storytelling session conducted and hosted by one of the popular storytelling teacher Mr. Heathfield when I had a substantial realization that

storytelling can be a uniquely powerful linguistic and psychological technique in the hands of a language teacher which s/he can use with people of any culture and with people of virtually any age (Heathfield, 2014, p. 17). The following people told with me:

...Svetlana from Russia-Story: a traditional story about a deer with silver hoofs; David H from England-Story: 'The Straw Millionaire' a traditional story from Japan told to him by Kenta Ogawa about a poor boy who gives away what he has but is given much more as a result; Maggie from the United States-Story: a story about jeopardy; Daria from Russia- Story: a traditional story about pulling up a big turnip; Rosemary from Australia-Story: a story about killing snakes; Andrew W from Hungary-Story: a story from personal experience, 'Beggar in Bogota'; Charlotte-Story: a tale about transporting a double bed; Shikha from Nepal-Story: A traditional story from Nepal about a time when everything spoken became true (Heathfield & Wright, 2014, p. 7).

It was the first time ever that I had told a story in front of about one hundred people in an international platform and the experience not only helped me gain my confidence of public speaking, but also fuelled so many ideas inside me that I would apply back in my country with my learners in my teaching context as well as with my fellow English teachings of Nepal through various professional development platforms. I definitely grew as a professional there on that platform and was endowed with the new concept of the 'Art of Storytelling' as a creative tool to enhance ELT. It sowed the seed of exploration about it and application in the nearest future as well.

Connectedly, this workshop aims to introduce the use of the art of storytelling and by enabling the participant teachers to experience and thereby help them transform their classrooms with the art. The workshop shall aware the participant teachers about the significance of storytelling in ELT and help them give their learners an artful experience that shall touch their lives in every way forever. The facilitator is hopeful that the participants shall eventually enrich ELT in Nepal in the long run.

Intended learning outcomes of the workshop

The participants will be able to:

- a. listen and tell personal, ethnic or folk tales
- b. discuss and present the use of storytelling in English language classrooms.
- c. mime, freeze and draw reflections as creative responses to stories.

The facilitator will be able to:

- a. contribute to the ongoing discourse of storytelling in ELT
- b. grow with the practice community

Description of the sequence of the workshop activities

Setting: a small hall set up in a typical storytelling environment, where the storytellers and listeners shall be seated in a typical Nepali way when we share and listen to stories among our friends and family.

The workshop has three parts:

a. Storytelling Session

With the objective of setting the stage, building a connection with the participants, helping them socialize among one another and enabling them to experience the art of storytelling and feeling its significance, short storytelling session begins the workshop. In this section, the facilitator, two guest storytellers: my grandfather and my storytelling mentor from the UK (joining virtually and or in-person) and any three volunteering participants tell personal, ethnic or folk tales of about five to seven minutes each.

b. Group Discussion and sharing

After the storytelling session as an ice-breaker or the introduction of the workshop theme: storytelling, the participant teachers will be divided into small groups to discuss how they

can use storytelling as a creative tool to enhance English language teaching in their virtual or physical classroom. Then, they note and share the crux of their discussion in bullet points in a chart paper.

c. Creative Response

According to Heathfield (2014), creative response is a ‘creative task’ after dealing with any text. It is mainly focussed on storytelling but is also applicable to all kinds of texts we teach in our classes. Hence, in the last segment of the workshop, the participants will engage themselves into and enjoy three out of many ways of creative response to stories: miming, freezing and drawing reflection.

Intended target audience

English language teachers are the preferred target audience. Nevertheless, the content of the workshop can be useful for other subject teachers or school leaders.

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Transformative Educational Research as/for Professional Development for STEAM Educators: Sustaining and Thriving Through Critical and Collaborative Autoethnographies

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Abstract

The proposed workshop mainly addresses *learning and researching for sustainable futures*, one of the subthemes of the conference. The workshop aims at challenges the conventional notion of educational research as an activity detached from researchers' values and lifeworlds, thereby enabling participants to take up what Kincheloe suggested as an activist view of research in which the researcher's lived experiences are one of the sources of problematization and research process for her/his research project. This transformative approach has been premised on the four key assumptions: a) that humans can change themselves, b) that they can change others, including the system, and c) that change is possible through heightened consciousness, d) that changes are reflected in our thought and actions, and e) affective and spiritual dimensions together with cognitive ones are essential for the facilitation of the transformative process.

The workshop is proposed to structure through a brief presentation on three major types of educational research such as informative, reformative, and transformative via the help of the co-facilitators. Examples of research topics under each typology are discussed with a view to engaging participants in connecting with their present and past research projects. In this process, participants develop an understanding of informative research through an analogy of the 'info' desk, which does not enable researchers to go beyond the given information. Such an approach has often been associated with educational research within the positivistic (and its cryptic form) paradigm, which is restricted by a host of epistemic, ontological, axiological, and rhetorical assumptions. Likewise, participants are encouraged to discuss reformative research projects that look for some amendments within the system through a host of short-term improvement measures. The notion of repairing an old house can be connected with the view of reformative research. Examples of interpretive (and mixed methods) research, which afford to seek in-depth analysis of the issue under study are presented and discussed.

Since the focus of informative and reformative research is likely to result in minimally incremental pedagogical change, the need to develop a transformative education research design that does not only analyze but also enables researchers to develop themselves to act as change agents, for the very purpose of the pedagogical change is possible through both systemic and agentic changes. The discussion further leads the participants to develop a need for a multiparadigmatic research design to challenge the status quo and develop their visions of inclusive and empowering pedagogical visions. Particularly, the participants shall discuss how the critical research paradigm is further enriched by interpretivism, postmodernism, and integral paradigms in developing a research design that facilitates researchers' transformative professional development as educational practitioners. Before the participants get 'real' examples of research projects done within the field of transformative education research, further discussions on how researchers develop their research problems take place through peer/group work. They are likely to develop questions

such as these: How can I develop an inclusive vision of teaching medical science? How do I envision empowering pedagogy for students in developing their identity as mathematics enthusiast? How can I envision socially responsible STEAM education in my school context? Participants gain insights into their troubling issues within the context of their work.

A number of sample thesis titles and their selected sections are shared with the participants to discuss and judge their quality as proposed by the researchers. In turn, such an exercise unpacks the use of critical and collaborative autoethnographies that fits well with the multiparadigmatic research design. In designing their research towards challenging the various taken for granted assumptions about teaching, learning, education and other relevant issues.

In the next stage, the participants shall be engaged in quality issues of such research. In departing from the positivistic notions of validity and reliability, the participants shall be exposed to standards arising from different paradigms, such as praxis, pedagogical thoughtfulness, critical reflexivity, to name but a few. Some of these quality standards shall be exemplified with the help of sections of completed thesis.

Keywords: change, transformation, autoethnography, critical reflexivity

3C-R Pedagogy to Transform Classroom Practices

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Abstract

While working with multiple schools' and collages I have found teachers focusing on rote learning mostly and somehow, I was following the same pedagogy as a teacher and teacher educator. I was frustrated, but that led me to study further to start working from a new dimension. This event helped me to taste multiple approaches (pedagogy) and it became a turning point in my professional career. I feel a shift in profession from conventional to a transformative educator through using different approaches. These events help me to invent innovative pedagogy called 3C-R pedagogy. Workshop on "Innovative 3C-R Pedagogy to transform classroom practices" aims to set or change the prospective of activity-based instruction in the classroom physically and online session. This workshop will help participants to set their own common pedagogy as per the basic principle of innovative pedagogy and equip with the skills, understanding and resources to address soft skills prescribed by national curriculum. This workshop also will enable the participants to be familiar with mainstream curriculum and its practices in their everyday classroom practices.

Keywords: Connect, concept, context, transform

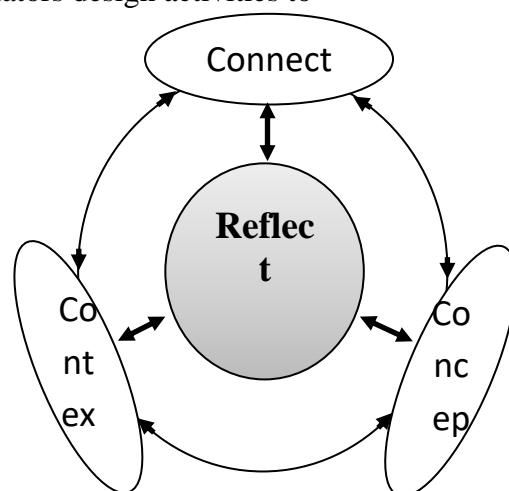
Guiding question: How 3C-R pedagogy transforms classroom practices?

What is 3C-R pedagogy and how it was developed?

Here 3C-R means 3 times C (connect, concept and context) and R means "reflect". In "connect" facilitator make environment to work on prior learning of the learners. Here any kind of minds on and hands on activities are valid but that should be to find out prior learning of the learners. It is a pre learning stage. While working with "concept" facilitators design activities to

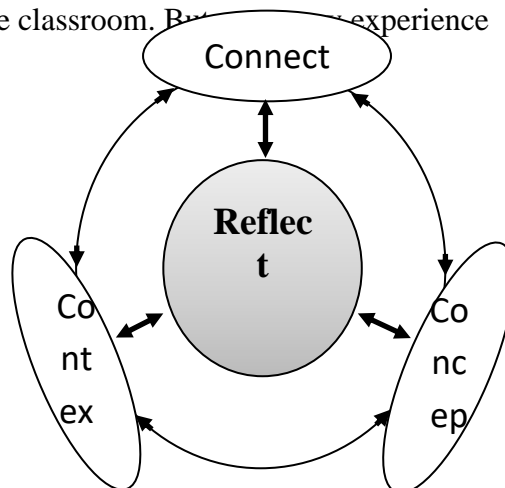
investigate the facts and figures of the content or subject. In this stage learners can work individually, in pair, in group or in any form but there must be hands on activities. Teachers work as facilitator in this stage. Teachers do not give direct answer but allow learners to find out the reality. At this stage learners became aware and solve all the confusions they are having regarding the content/topic/subject matter. In short it can be said that learners try him/her self and become clear on the ideas. While working with "context" learners use their emergent learning into solving real life situation. They will link their learning into contextual situation. Apply knowledge for the benefit of self and others. Reflect is connected with every component. Reflect is understanding of learners which is reflected in every step.

To find out prior learning of learners, learners reflect their understandings. After doing work on concept, they reflect their emergent learning and validate their learning. In context use is in the context they reflect their work and uses and modify as per the reflection of different individuals.



3C-R pedagogy allows learners and facilitators to start from any components in different context and situation. In six ways, it can be utilized in the classroom. But, the experience most of the facilitators are using 1st ways.

1. Connect to concept and concept to context
2. Concept to context and context to connect
3. Context to connect and connect to concept
4. Connect to context and context to concept
5. Concept to connect and connect to concept
6. Context to concept and concept to connect



3C-R pedagogy came into existence after practicing multiple innovative pedagogies into multiple teachers' workshops. I have found multiple common components in every pedagogy and some of the barriers as well. Mostly pedagogical models are found connected with prior learning of learners, investigation of learners, presentation of learning and use and application of learning into real life situation. Considering these components, I have designed 3C-R pedagogy. The major purpose of this is to overcome from complexity in local context and to get maximum benefits from single pedagogy. Here the concept of connect to connect with prior learning, concept of concept to investigate reality in depth to get clear concept, concept of context is to utilize the knowledge into the contextual situation and reflect is a link which link each stage with another. This concept is quite easy to understand and to use. This pedagogy provides new experiences to learners and facilitators and fit to any classroom sizes, subjects and level of Nepalese schools and universities.

I was involved in teaching children at schools for around 15 years and worked as teacher educator for 7 years in past but I was not completely aware regarding the pattern how we need to guide learners. I was working as per my prior learning and my study in university. All the time discussing and facilitating about child friendly teaching, activity-based teaching, project-based teaching, but after studying about innovative pedagogical models and practicing them in the classroom with school teachers, I have realized that if we follow models, it gives enough opportunity to learners to explore their own knowledge, help them to investigate further and use them in their life. There are different model but to make it easy to practice and to make learners understand easily, I have modified it as per my experiences and experiments.

Together with 5E instructional model I took reference from design thinking, sterepling inquiry model, STEAM education, etc. and developed own model called 3C-R. Here connect (1st C) is the combined integrated form of engagement stage of 5E, emphasize stage of design thinking, wonder and connect stage of sterpling inquiry model, and it is the activity of science from STEAM education because process of inquiry is the part of science where other components of STEAM can be integrated as per the need while facilitating. 2nd C which is concept is the combined form of exploration from 5E, defined from design thinking, investigation from sterpling inquiry model and inquiry from science. In this stage any component of STEAM can be integrated as per the need of the teacher. 3rd C which is Context is somehow similar to elaboration of the 5E instructional model but in this stage learners develop a prototype similar to design thinking, reflect and connect as similar to sterepling inquiry model and can use any component of STEAM. Similarly, R is the component which helps facilitators and learners to reflect their emergent learning, share their learning and get ideas from others. This stage is the concept of explanation stage of 5E, art integration of STEAM and construct

stage of stereotyping inquiry model. At this stage, learners can utilize any component of STEAM. The integration of different instructional models in 3C-R is presented from the table below.

3C-R	5E	Design Thinking	Stereotyping Inquiry Model	STEAM	Focus on
Connect	Engagement	Emphasize	Connect and wonder	Science	Prior learning, learners' Curiosity, Emphasize KW from KWL chart
Concept	Exploration	Define	Investigation and construct	Science	Active engagement of learner Freedom with limitation Investigation Inquiry Usefulness Maximum utilization
Context	Elaboration	Prototype	Reflect	STEAM	Aesthetic value Prediction / calculation / pattern / formula
Reflect	Explanation	Ideation	Express	Arts	Present learning Show ideas Use of art

Using the same model, I am regularly conducting sessions and guiding teachers to use the same model in the classroom. While presenting feedback and conclusion of workshops teachers have concluded that my facilitation is effective for active engagement and can easily reflect learner's learning.

As per my practices in different workshops I have found 3C-R quite effective because

1. It has multiple options to use models (6 options).
2. It is an inquiry as well as support project and problem-based learning.
3. It can be used as per the contextual situation.
4. Same model can work for developing projects, solving issues and guide learners as per inquiry-based process.
5. Easy to understand and quite simple to use.
6. If anyone understood one pattern, they will easily utilize all 6 options to utilize it.
7. It is context fit (contextual does not need specific structure, fit in any situation)

Assumptions of workshop:

1. Participants explore ideas process and product of 3C-R pedagogy
2. Use ideas to 3C-R pedagogy while planning the lesson.

Goals/Expected Outcomes from Workshop:

After the workshop leaders/teachers will be able to

1. Investigate 3C-R pedagogy
2. Apply the concept in facilitation
3. Reflect prior and emergent learning
4. Plan as per 3C-R pedagogy

Target Audience/participants:

The major focus will be to the teachers, educators and teacher educators of different level

Duration:

90 minutes

Workshop Methodology:

The methodology of workshop will be interactive, group work and presentation-based.

Guiding Principles

This workshop is guided by inquiry, project and issue based instructional model. In short, its guided principal can be understood from the given table.

S.N	Principals	For	Covers	Mission level
1.	Connect (Enfolding)	to assess prior learning and experience together with wonders	Emphasize, wonder, curiosity, own concern, constraints and challenges, experiences on same event/issues or content	Informing
2.	Concept (Enacting)	to find out truth through discoveries	<ul style="list-style-type: none"> ● As per the result of involve ● Inductive (concrete to abstract) ● Theory to practice and practice to praxis ● Active involvement ● Collaborative engagement ● Freedom with limitation 	Reforming
3.	Context (Emerging)	to innovate to support our daily practices/activities	<ul style="list-style-type: none"> ● Prospective of implementation ● Modeling pedagogy in the classroom 	Transforming
4.	Reflect (Reflecting)	to get chance to reflect own learning	<ul style="list-style-type: none"> ● Equal chance to reflect learning in every step of learners' work ● Critical self/pair/group-reflection ● Use of multiple arts form 	Transforming

Activity flow

Time	Content	Description	Material (if physical)
10 minutes	Work on prior learning and wonders of pedagogy	Handouts together with Brainstorming questions	A page handout
10 minutes	Pedagogy expected by national curriculum	PPT presentation	<ul style="list-style-type: none"> ● PPT slides ● Handouts to show major components of curriculum
50 minutes	Work as per 3C-R pedagogy	Group division 4 or 8 groups Work on different components (3C-R)	<ul style="list-style-type: none"> ● Chart paper ● Handouts ● Markers ● Tape

		Mirror activity	● Planning format
10 minutes	Reflection and question answer	<ul style="list-style-type: none"> ● Differences between conventional and emergent learning ● Question answer 	Reading materials
10 minutes	10 minutes for adjustment within multiple phase		
90 Minutes	Total Time		

Materials required (if participants are 20) (if physical workshop than)

S.N	Materials	Quantity
1.	Chart paper	8P
2.	Markers	8P
3.	Sign pens	4 set
4.	Tape	4P
5.	Projector and power backup	1/1 P
6.	Basic stationary like A4 sheet/s, dot pain	As per participants
7.	Handouts (reading materials and workshop guiding paper)	As per participants

Materials from facilitator

S.N	Materials
1.	PPT on curriculum, soft skills and 3C-R pedagogy
2.	Planning format
3.	3C-R reading materials
4.	Sample Planning 3C-R
5.	Initial prior learning guiding paper

Incorporating Eastern Wisdom Traditions in Transformative Educational Research

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The proposed workshop on the Eastern Wisdom Traditions (EWTs) basically embraces the epistemic contribution of *Hinduism (Vedas, Upanishads)*, *Buddhism*, and *Taoism*. These contemplative traditions focus on self-inquiry (Maharshi, 1990), i.e. an inward process (*tapas*, e.g., *The Varuna- Bhrigu dialogue in Taittiriya Upanishad*, *self-reflection*, *self-transformation and so on*). The Eastern perspective of the all-encompassing Self contradicts the Western perspective of the individual self as a source of knowledge. The Eastern aphorisms such as *Tat Tvam Asi (Thou art that) from Chandogya Upanishad (especially the Aruni- Svetaketu dialogue)*, *appo deepo bhava (be light unto yourself, based on Buddhist philosophy)*, *I am Satchidanand (I am eternal, enlightened, and pure self)*, *Aham brahmasmi (I am the universe, Brihadarankya Upanishad)*, and so on highlight the significance of the Self and the need of humility and compassion to attain knowledge and wisdom. In other words, EWTs deeply explore consciousness (e.g., *chakra epistemology which basically deals with evolving consciousness*, Judith, A, & Goodman, 2014), mind, and the nature of reality. In doing so, a researcher might connect the nuances of EWTs to enrich their subjective experiences and bring about transformation in their life and the life of others.

We will briefly share about the *chakra* epistemology from the EWTs. The word *chakra* is derived from Sanskrit as mentioned in the *pre-vedic philosophy*, meaning a disc, wheel or any arrangement in a circular shape. Paulson (2002) mentions that “*chakras* are vortices through which energy flows both in and out of the body” (p. 59). *Chakras* are considered energy vortices or stations for transmitting and receiving energy. Johari (2010) mentions that “*chakras* are psychic centres of transformation that enable one to move toward an enlightened state of being” (p. 1). The *chakra* system offers a space to craft an integral research space through multi-layered consciousness. So when psychic abilities are nurtured, people will have an expanded level of awareness and understanding of cosmic energy. These multiple wheels of life-force energy unfold multiple ways of being, knowing, and valuing. More specifically, we will explore how different *chakras* can be connected to different ways of knowing such as cultural knowing, critical knowing, existential knowing, relational knowing, communicative/practical knowing, visionary knowing, and integral knowing

Our philosophical foundation exhibits an open, inclusive, and co-constructive nature that enhances our ways of knowing and constructing reality, which resulted from the multi-paradigmatic research design space (e.g. *gyan/pragya* paradigm) (Dhungana, 2022). Our *gyan/pragya* of exploring, achieving, and nurturing transformative educational research was developed by the multiple EWT belief systems such as *prasma* (question), *kalaa* (art), and *artha* (meaning) in one-like form of *gyan/pragya* research paradigm. Here, *gyan* or *Jnana* refers to the *Brahman* or the total (*smasti*, one or whole) experience of reality; *Pragya* or *Prajna* refers to the highest and purest form of wisdom which is obtained by reasoning and inference. We were inspired by the integral perspective and the notion of “multi-paradigmatic research design” spaces (Taylor et al., 2012; Taylor & Medina, 2011) that encouraged embracing any or more than one belief system for transformative educational research purposes and thereby developed a decolonial voice.

The *prasma* paradigm is akin to a critical paradigm as it shares the quality of questioning critically to know the world outside and beyond. Informed by *Prasma Upanishad*, *prasma*

paradigm was required to ask both internal (about self) and external (about the world) questions to explore the inner and outer world. Like Pippalada (a sage) welcomed young men (truth seekers) to his place and asked them to rest before posing any questions in Prasna Upanishad, we would give some space to rest participants' *monkey minds* and let to ask questions about different ways of knowing such as cultural knowing, critical knowing, existential knowing, relational knowing, communicative/practical knowing, visionary knowing, and integral knowing in the workshop. The *Kalaa* paradigm is akin to a postmodern paradigm. Therefore, we would use multiple art forms to represent (participants) researchers' thoughts and feelings about ways of knowing when an academic form of expression cannot justify it (Taylor & Medina, 2011). But *kalaa* goes beyond as we integrally perceived *kalaa*, i.e., from the EWT perspective, as we believe that this universe is a *kalaa*, *Maya*, or *Lila* and I (that includes my/teachers' activities) small *kalaas* of the big *kalaa* of this universe. For instance, we use images of 7 chakras to make sense of multiple ways of knowing. The *artha* paradigm shares some characteristics of the interpretative paradigm and goes beyond it. As the interpretative paradigm explores the truth of the outside world by rigorous engagement in the phenomena and in-depth interaction with the world (Taylor & Medina, 2011), the *artha* paradigm explores multiple layered truths of the inner and outer worlds. For instance, multiple participants may explore their authentic ways of knowing. Finally, the embracement of all paradigms forms a *gyan/pragya* paradigm. For instance, the *prasna* paradigm would support the participants to raise questions against conventional research culture, the *kalaa* paradigm would support us to put our knowledge into practice (e.g. realizing or imagining authentic ways of collecting information in transformative educational research), and the *artha* paradigm would support us in critical (self)reflection. That embracement would support recognizing or imagining EWT ways of making sense of integral perspective and thereby conducting transformative educational research.

During the workshop, the participants will be engaged in sharing their thoughts and perspectives on the Eastern Wisdom Traditions and how they are connecting Eastern philosophy in their research, as well as how the Eastern epistemology as a framework guides them to conduct their research with transformative sensibilities, embracing humility, empathy, and compassion. The participants will also be encouraged to share their understanding of East-West discourse on spirituality, possibly embracing the intent of critical spirituality (Gardner, 2011) to bridge the internal and external worlds.

Conducting transformative educational research adapting an integral perspective informed by EWT, had three significant challenges. The first challenge was making sense of multiple paradigms. Our understanding of paradigms or world views as belief systems connected well to the numerous EWT belief systems. The second challenge was developing the EWT perspective which we succeeded by positioning ourselves in the Nepali context as we began to see the contextual issues connecting to EWT literature (e.g. the Bhagavad Gita). The third challenge was to deepen our understanding of non/dualism as an integral perspective which we made possible by the transformative approach of adapting multiple forms of art for information collection, making sense, and presentation.

Quality Standards

Compassion

Pertaining to self-compassion as the ground of all emotional healing, Germer (2009) further mentions that self-compassion as a form of self-acceptance develops our mindfulness to help and care for ourselves. Highlighting the importance of the inherent value of forgiveness, Metzger (2008) reiterates the need to accept the inherent value of forgiveness. Metzger (2008) reaffirms the need to accept unexpected outcomes and realities of our deeds.

The sole aim of this paper is to explore our efforts of self-transformation. Compassion helps us to have an inclusive and equitable vision of all the team teachers giving priority to living

collaboration and relationships (*jiwanta sahakraya tatha sambandha*). It harmonizes relationships and builds up the team spirit at school.

Humility

Humility does not demean oneself and make anyone feel worthless or inferior. It is also not about self-deprecation rather, it helps to drop our ego and mirrors our true nature (Dhiman et al., 2018). von Hildebrand (1997) mentions that humility helps us respect everyone and see their dignity driving our ego from our soul. As humility practices vulnerability, it helps us to have a humble heart to respect the experience and perspectives of others. Considering humility as a critical leadership virtue, Dhiman et al. (2018) argue that “intellectual humility is a virtue that allows reason and understanding of one’s knowledge and one’s fallibility” (p. 581). Humility keeps a person open-minded and becomes ready to accept their shortcoming. Thus, cultivating the virtue of humility seems essential to thrive as a transformative school leader in the making, adhering to a living philosophy that *I am a humble caretaker of this school organization*. Embracing the idea of humility-oriented leadership might be a phenomenal experience for us to grow possibly as a full-fledged leader.

Conclusions

EWTs unlike Western-induced perspectives, focus more on an individual’s transformative process, thereby nurturing their agency. Rational knowing or technical interest as basically served Western perspectives maybe necessary but not sufficient in terms of connecting to the non-material or spiritual side which is a thread of transformative research. so, the paper intends to explore the logic behind the complementarity of East and West through dialectical engagement, and transcends further to realise key tenets of EWTs to enrich and make sense of integral perspective, thereby contributing to transformative educational research.

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Politics as a Collaborative Agency in School Governance in Nepal

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Abstract

Politics is observed often as a negative force in school education in Nepal. This article argues that politics is not wholly bad to deteriorate the education system. It depends on how it is used for the school's welfare. This article adopts the narrative inquiry methodology under the social constructionism worldview. I found that politics in schools has to be viewed differently from party-isation and it can be positively used as generating school leadership, seeking resources for schools, and the professional security of teachers. These initiations support school governance through the lens of New Public Management. However, politics should not be used to earn might and position by the school stakeholders. This article has implications for educational researchers, policymakers, and political activists.

Keywords: Nepal, new public management, politics, school governance

Politics: Meaning

In the Nepali language, politics are termed as *Raajniti*, which means the master policy. Politics exist everywhere where there are human interactions, debates, and problem-solving about any societal issues (Modebadze, 2010). Eijk (2018) claimed that “politics is present in all situations where interactions between people are structured by differences in power, authority, and control” (p. 10). From the period of Aristotle, it is considered that “politics is a didactic activity for the improvement of citizens...” (Coby, 1986, p. 480). It can be further viewed as “the art of government, [...] as public affairs, [...] as the study of conflict resolution, [...] as the study of power” (Modebadze, 2010, p. 41). Politics happen when there is indifference to ideas amongst people. It unites people in an ideology, generates leaders, and develops a network to explore resources for a school. Political values are reflected in policies, thus these values cannot be undermined to bring reform to the education system (Dhakal, 2019; Weiler, 1990).

Influences of Politics on Nepali School Education

It is no doubt that politics has been established as a playmaker in the Nepali education system (Kharel, 2017; Neupane, 2019; Poudyal, 2013; Sharma, 2008). However, the negative impacts of politics are largely discussed on school education in Nepal. Politics is more associated with power relations (Fadakinte, 2019), and public schools in Nepal are soft targets for exercising this power play. The political influence on Nepal's education sector grew after the restoration of democracy in 1991 and flourished through the SMCs (Sharma, 2008). Politics has massively misused the authority of the school management structures (Dharel et al., 2013). Politics has divided school stakeholders and they have forgotten their major agendas of educational transformation and sound school governance (Dhungana, 2012). Political parties have misused public school platforms through the SMCs and the teachers' unions to govern local politics (Pherali, 2012). Teachers' unions are politically motivated and lobby the advocates on the agendas of their mother parties instead of using politics for their professional growth (Kharel, 2017; Poudyal, 2015; United Nations Children's Fund, 2017). Apart from these claims, there are several positive impacts of politics on school education in Nepal. First, it was the political decision to include school education as a right of local governments in the 2015 Constitution.

The constitution further mentioned that schooling education shall be provided for free which aligns with the country's socialism-oriented principle (Nepal Ministry of Law, 2015). Thus, the purpose of this research is to explore some alternative narratives of politics in school governance that reflect its positivity and complement the New Public Management of school education. The narratives of school stakeholders would suggest the appreciative reorientation of politics in public education in Nepal.

Methodology

My research schools are the Sahar ko school, Semi-Sahar ko school, and Gaau ko school. These schools are situated in Patan Metropolitan city, Setidevi Municipality, and Kalidevi Rural Municipality (pseudonyms) in Lalitpur, Nepal. I applied the social constructionism worldview in my research. Social constructionism explains that social reality is the co-creation of human interactions amongst people (Galbin, 2014). I used the Narrative inquiry methodology as human stories are useful sources to understand their socio-cultural experiences in a context and storytelling is an easy way to share this with others (Connelly and Clandinin, 1990; Pavlenko, 2002, as cited in Berry, 2015). My research participants were Education officers of *Palikas*, elected ward representatives, head teachers, teachers, SMC Chairs and members, PTA Chairs and members, locals, and students. The narrative findings are presented next.

Findings

Nepalis understand that public schools have become platforms for power exercise at local levels. Politics is indeed an inseparable factor in the development of public education. My participants have unveiled some positive domains of politics in school governance which I have presented as follows.

Politics Germinates Leadership

The position of the SMC Chairs can be fulfilled by anyone interested and capable in the SMC team, apart from the teachers (Nepal Ministry of Law, 2017). The leadership role of local governments is equally crucial in developing schooling education. They are mandated by the 2015 Constitution of Nepal. Thus, it's a political decision can recommend the right person for the right position as the SMC Chair for effective management. In this regard, my participants have the following views.

Ms. Paleti, Education officer, Patan Metropolitan City Office:

In urban public schools, many students work as domestic workers in others' houses. Poor parents cannot give their time and expertise to schools. Due to these reasons, the provision of selecting the SMC Chair amongst parents was amended and opened to anyone capable. The position of the Chair is not restricted to politically motivated persons.

Mr. Hyan, Head Sir, Semi- Sahar ko school:

A local government is performing the role of a catalyst in developing school education. Our local government [Setidevi Municipality] office has already endorsed the 2019 Local Education Act to supervise, monitor, and develop public education.

Mr. Meta, SMC Chair, Semi-Sahar ko school:

There is high importance of having an SMC in a school. Teachers are the staff, and it is very rare in Nepal that the staff to obey their seniors (Head Teacher). It is easy for me to manage the teachers as I am an outsider, a political person, and a socially known one.

Mr. Boss, SMC, and the Ward Chair, Gaau ko school:

A political person cannot remain passive in the community

Politics for Resource Exploration

Public schools in Nepal are always having a resource crunch (United Nations Children's Fund, 2021). The social capital and influence of political persons are helping to bring resources to schools. In this context, my participants revealed the following experiences.

Mr. Dahun, PTA Chair, Semi- Sahar ko School:

Politically, the SMC Chair is very powerful as he belongs to the current ruling party in Nepal. The school got a budget from the DLPIU¹ to construct our first building. Guardians do not come to school and show any seriousness in the education of their children. The SMC Chair has done a lot for this school.

Mr. Cote, SMC member, Semi- Sahar ko School:

If there are no vocal people in a school, it is difficult to bring resources. Our SMC Chair is very active and visits everywhere to seek funds. He was a candidate in the last Ward election representing the CPN- Maoist party. Accessible persons like him can help in the school's development. Parents lack the networks to bring big grants.

Mr. Boss, SMC Chair, Gaau ko School:

Elected representatives bear political ideology, but they are neutral while delivering service to the people. If a person, who can mobilise the resources becomes the SMC Chair, then it benefits the school.

Mr. Purano, Retired teacher and local, Gaau ko School:

If an apolitical person leads the SMC, they again have to rely upon the political persons to get a budget for the school.

Politics for Teacher's Professional Security

The 1971 Education Act and the 2002 Education regulation of Nepal have allowed teachers to unite in a professional trade union, namely the Confederation of Nepalese Teachers (Nepal Ministry of Law, 2017, 2020). If politics is used by teachers for their professional security and welfare, this would positively help their growth. The following narrations further supplement my argument.

Mr. Purano, Retired teacher and local, Gaau ko School:

I had a philosophy that a teacher should not hold membership in any political party. But having neutral political status, I faced many difficulties such as the threat of transfer from this school, suppression by Head Sir, and others.

Mr. Hyan, Head Sir, Semi- Sahar ko School:

I am affiliated with one of the teachers' unions. It is essential to be a member of such union for our professional security and network development. A public-school Head Sir is responsible not only for academic improvements but also for budgeting. Without a strong relationship with high-level people, we might miss many opportunities.

Make Positive use of Politics

Indeed, "education system themselves are part of the political process" (Nepal Ministry of Education, 2021, p. 125). There are critiques of politics in schooling education. However, politics cannot be separated from education but schools can benefit from its positive aspects. My participants have the following recommendations.

Ms. Chup, Elected representative, Sahar ko School:

Local developments are under the jurisdiction of the Ward offices, including the school education. Law has delegated this authority to local governments. The Ward office is represented by elected political persons. Politics is essential to envision and execute any interventions in a society, either in the shape of ideology or through leadership. Even the Prime Minister belongs to a party, but he rules the country as per the constitution not as per his political manifesto. So, if everything goes as per the education policies, other exogenous factors cannot deteriorate the school environment.

Mr. Purano, Retired teacher, Gaau ko School:

Whoever the SMC Chair is, it depends upon the person's vision and will to develop the school. The basic things, which should not be compromised are the quality of education.

¹ An earthquake related government office to do reconstruction works

The political person should use politics as means of school development, but not as an end to gain power.

Mr. Hyan, Head Sir, Semi- Sahar ko School:

In this school, our teachers are affiliated with different trade unions. I allow them to take part in the union's program. I also go to attend different programs related to my union. We have some tacit understanding; we do not hamper our teaching duty, we do not bring any political conflicts into school, and we use politics for our professional security and school development. Thus, we do not have major indifferences in our school due to politics.

In summary, these narrative findings give meaning that politics have multiple benefits to promote school governance in Nepal. So, it can be used as a political drive to implement any reform agendas in education.

Politics 'as a Collaborative Agency' for Educational Transformation

Politics is considered a master policy to overrule a country's plans, policies, and developing activities. Academic discussions acknowledge that politics is largely responsible for deterioration of public education in Nepal. However, it is also true that politics is inseparable from school education and the benefits of politics are possible if it is used properly. The participants in this research have revealed that the roles of elected representatives (or political persons) in SMCs make the local government more responsive to the people. These governments have received the people's mandate for five years term for local development including school education. In addition, the majority of parents in some urban public schools are migrants from impoverished backgrounds. These parents can hardly contribute their time and ideas to schools. Karl Marx, in his conflict theory, indicated that many good positions are occupied by high-class people in society (Rajbhandari & Rajbhandari, 2016). Thus, political leaders who are always available for schools, who are vocal, and who have influenced local bureaucracy to bring resources, are overwhelmingly welcomed by the parents to chair the SMCs. Besides, one of the major problems of the public schools is the resource crunch and this can be fulfilled by the socio-political network of the SMC Chairs who have political influences. If there are SMC members who do not hold any political access, they have to knock on the door of political persons to seek budgets for schools. This indicates that politics is inevitable in schools due to the makeup of our societal structure.

Similarly, teachers can use their political trade unions for their professional security and growth. The 1971 Education Act and the 2002 Education regulation of Nepal have allowed teachers to unite in a professional trade union, namely the Confederation of Nepalese Teachers (CNT) (Nepal Ministry of Law, 2017, 2020). These laws have also mentioned that teachers are not allowed to be involved in active politics. However, there are dozens of political party-based trade unions of teachers under the CNT. A report from United Nations Children Fund in Nepal indicates that teachers are "a strongly political group, which makes issues of teacher management and accountability difficult" (United Nations Children's Fund, 2017, p. 35). This identity of the teachers has turned a negative image of public schools in the country. This needs reforms and party-isation of schooling education should be stopped.

There are recommendations from my participants that politics should not be used in schools to gain might and position. Every stakeholder should acknowledge that politics should not disrupt the teaching-learning process in schools. Political agendas should consider the agreed norms in the constitution, acts, and policies regarding education as above all to perceive and develop school education. The grounded societal values and the political interests have both aspects of bringing positive or negative impacts on education. It depends on "how education is planned for and delivered at all levels of the system" (Nepal Ministry of Education, 2021, p. 130)

Politics has been well situated in the school governance of Nepal through the perspective of New Public Management (NPM). The SMC model in Nepal adopts the NPM model (Rajbhandari, 2016). NPM is a management theory that advocates economic and managerial reforms of public institutions which have traditional bureaucracies (Hood, 1995; Lapuente & Van de Walle, 2020). It supports devolving the decision-making authorities to the implementation level to yield better outputs. It aims to make public service delivery efficient through economic and managerial lenses (Kearney & Hays, 1998). The roles of local stakeholders are crucial in exploring resources for their schools which lowers the dependency on higher governments (World Bank, 1988, as cited in Weiler, 1990). The improved school governance through the lens of NPM in Nepal can be made possible by the positive use of politics. Politics helps to build leadership, explore local resources, and secure the professionalism of teachers.

Conclusion

Politics is an art of government. Its values are almost inseparable from schooling education in the Nepali context. It exists everywhere, where there is an exercise of power. It should not be always blamed for the deteriorating education system. Politics represent leadership, engagement, and participation, of stakeholders and can be developed as the collective voice for a school. It helps explore resources for schools and the professional security of teachers. These all are useful domains for sound school governance. However, we must be cautious about its use. The political consensus should be based on the agreed national constitution, acts, and policies to develop schooling education. The “Dos and Don’ts” of politics can be developed by every local government as a guideline and implemented in every public school. Undoubtedly, politics should be used as a collaborative agency for school development but not as an end to gain might and position through party-isation. This supports affirmative reforms in school governance in Nepal through the lens of NPM.

Note

This research paper is a thematic discussion of my Ph.D. research entitled ‘Exploring value system in school governance in Lalitpur, Nepal: A narrative inquiry’. I conducted my field works in three schools in Lalitpur Nepal in urban, semi-urban, and rural geographic settings from February to mid of April 2021.

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Sustaining and Thriving Transformative Living Educational Theory Research and Practice in Challenging Times and Contexts

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Abstract

Our intention here is to contribute to envisioning and realising a paradigm shift for empowering the future of research and education to bring into being a more harmonious, peaceful world where individuals and communities can learn to flourish and help others do so too. Humans have faced challenges from time immemorial. Some challenges are common; others are particular to a time and context. Challenges particular to a 21st century world include those presented by: a global pandemic, climate change and, the hegemony of technical rationality and global spread of individualistic, populist and neoliberal ideologies. This presents us each with a personal challenge to accept responsibility to pose, create and offer valid answers to questions such as, ‘How can I, as a researcher, practitioner and citizen, contribute to the development of local, national and global policies and practices which hold a hope of bringing into being a world with values of human flourishing, and help others do so too?’ We illustrate how practitioners worldwide have been engaging for decades in Living Educational Theory Research to generate answers to such questions. In the process they have critically and creatively engaged with various knowledges and united with researchers, practitioners and citizens across multiple academic fields and disciplines to: improve their research and pedagogical practices for the benefit of all; transform education and research to enhance sustainable educational, values-led, development of individuals and communities locally and globally and; contribute valid accounts of the knowledge they generate to the growth of a global educational knowledgebase.

Keywords: Transformative Practice; Values of Human Flourishing; Professional Development; Living Educational Theory Research.

Background

Questions, such as, ‘How do I improve what I am doing?’ gave rise to the development of Living Educational Theory Research (Whitehead, 1989) as a distinct form of professional practitioner educational research. In the course of Living Educational Theory Research practitioners clarify the relationally dynamic values of human flourishing they use to explain and evaluate their practice. The development arose from stipulating a necessary condition of Living Educational Theory Research as the generation by a practitioner, of a valid explanation of their educational, values-laden, influences in their own learning, in the learning of others and in the learning of the social formations within which the practice is located. There is no necessity to generate these explanations within Action Research, Auto-ethnographical Research, Narrative Inquiry or any other form of practitioner research.

Purpose

To contribute to:

- Co-joint envisioning and realisation of a paradigm shift in moving, from the hegemony of technical rationality, for empowering the future of research and education, to bring into being a more harmonious, peaceful world where individuals and communities can learn to flourish and help others do so too.
- Expanding awareness of situatedness and creating harmonious spaces by strengthening and enlarging international communities of transformative practitioners with values of human flourishing.
- Promoting responsibility, equity, empowerment and enhanced meaningfulness in educational research and practice.
- Cultivating a vision of greater openness.

Literature

We draw insights from diverse knowledges, for example:

- MacIntyre's (1988, p. 403) claims about the vindication of rival claims to truth, rationality, knowledge and power;
- Foucault's (Rabinow, 1991, p. 55) distinction between battles on behalf of 'truth' and the rules that determine what counts as truth;
- Santos' (2016) awareness of the dangers of the colonising influences of epistemologies in what he calls 'epistemicide', and;
- Jakubik's (2022) analysis of 'The Role of Higher Education in Solving Global Problems', with her assertion that the world's global problems need urgent and sustainable solutions and actions in seeking to create answers to questions such as, 'How can higher education develop authentic and responsible citizens who will be able to act and solve global problems?'

We draw on insights such as these, to improve our contribution to envisioning and realising a paradigm shift in educational research and empower the future of research and education to bring into being a more harmonious, peaceful world where individuals and communities can learn to flourish and help others do so too.

We also draw on:

Living Educational Theory Doctorates legitimated by Universities worldwide (access from <https://www.actionresearch.net/living/living.shtml>) such as:

- Whitehead (1999), *How do I Improve my Practice? Creating a Discipline of Education Through Educational Enquiry*
- Charles (2007), *How Can I Bring Ubuntu As A Living Standard of Judgement Into The Academy? Moving Beyond Decolonisation Through Societal Reidentification And Guiltless Recognition.*
- Huxtable (2012), *How do I Evolve Living-Educational-Theory Praxis in Living-boundaries?*
- Qutoshi (2016), *Creating Living-Educational-Theory: A Journey Towards Transformative Teacher Education in Pakistan.*

Published, peer-reviewed papers such as:

- Boland and Romero's (2017), *(Re)inhabiting Waldorf Education: Honolulu Teachers Explore the Notion of Place*
- Gumede and Mellett's, (2019), *Forming a 'We' through a good-quality conversation*
- Rahman, Lund, Alamin, Khalid, Krogh's, (2021), *Developing a transformative, cooperative living-educational-theory with children and youth in the EDS (Education for Development and Sustainability) community of practice in Bangladesh.*

- Whitehead and Huxtable's, (2022) *Developing a Living Educational Theory Research Approach to Community-Based Educational Research*.

Conference presentations such as:

- Dhungana's (2022), *Living educational values for enhancing harmonious equitable space*.

Reports such as:

- Rawal's (2017), *Straws in the wind: An evaluation of a teacher-training programme*.

Methodology and methods

Our methodology is that of Living Educational Theory Research, a form of professional practitioner educational research and practitioner self-study research in which the question is not 'who' am I?' but rather 'What am I doing to contribute to the realisation of values of human flourishing?' At the heart of this question is the acceptance of a responsibility to continuously strive to improve our practice in order to enhance our educational influence in our own learning, the learning of others and in the learning of the social formations within which the practice is located. Whitehead (1989) coined the term living-educational-theory for valid explanations created by practitioners for their educational influence in one's own learning, the learning of others and in the learning of the social formations within which the practice is located. The approach draws insights from diverse knowledges, such as those psychology, philosophy, sociology, leadership and management of education in order to improve knowledge and practice with values of human flourishing; values such as authenticity, integrity and those of global citizens who accept their responsibility to contribute to bringing into being a world where the humanity of individuals, communities and Humanity flourish.

In the development of a living-educational-theory methodology, methodological inventiveness (Dadds & Hart 2001, p.166) is stressed in asking, researching and answering questions of the kind, 'How do I improve what I am doing in my professional educational practice?'. In exercising methodological inventiveness, it is important to recognise that each Living Educational Theory Researcher generates their own living-educational-theory methodology in producing their explanation of their educational influences in their own learning, in the learning of others and in the learning of the social formations within which the practice is located. This process is very different from traditional approaches that usually involve the application of an existing methodology to a research inquiry. This generation of a living-educational-theory methodology can often include insights from other methodologies (Whitehead, 2018).

Methods developed include:

- i. Empathetic resonance with digital visual data (Whitehead, 2010; Huxtable, 2009) for clarifying and communicating the meanings of embodied values that distinguish practice as educational
- ii. The use of living-posters (Huxtable, 2019, p.12-14), to enable people to be present as individuals in communities and make connections with others working in diverse contexts and cultures, as illustrated by those accessed from the living-posters 'homepage', access from <https://www.actionresearch.net/writings/posters/homepage2021.pdf>

Image 1 Living-posters homepage

<https://www.actionresearch.net/writings/posters/homepage2021.pdf>

Living-posters have also been developed to form other research methods.

iii. Creating valid multimedia accounts

As we research, we try to clarify and communicate the realisation in practice of relationally dynamic, humanitarian and life-enhancing values, which contribute to a world in which humanity can increasingly flourish and enable others and communities to engage in this research too. Words alone are often insufficient, hence the necessity of creating and publishing multimedia accounts. For examples of valid multimedia accounts of living-educational-theory research created by practitioner-researchers working in diverse social, cultural and practice contexts around the world, see the Educational Journal of Living Theories (<https://ejolts.net/>).

iv. Creation of personal websites

To make freely accessible Living Educational Theory Research websites have been created, as illustrated by Whitehead's website, <https://www.actionresearch.net>, Huxtable's, <http://www.spanglefish.com/mariessite/> and the resource website they are developing, <http://www.spanglefish.com/livingtheory>

Findings and Discussion

Our findings and discussion are related to our intention to:

- Co-create the envisioning and realisation of a paradigm shift in moving, from the hegemony of technical rationality, for empowering the future of research and education, to bring into being a more harmonious, peaceful world where individuals and communities can learn to flourish and help others do so too.
- Expanding awareness of situatedness and creating harmonious spaces by strengthening and enlarging international communities of transformative practitioners with values of human flourishing.
- Promoting responsibility, equity, empowerment and enhanced meaningfulness in educational research and practice.

- Cultivating a vision of greater openness.

Realising these intentions involves the acceptance of educational responsibility to pose, create and offer valid answers to questions such as, ‘How can I, as a researcher, practitioner and citizen, contribute to the development of local, national and global policies and practices which hold a hope of bringing into being a world with values of human flourishing, and help others do so too?’

Here we focus on the evidence-based accounts of practitioners holding themselves to account for enhancing their educational influences in the learning of individuals and communities through sustaining and thriving transformative Living Educational Theory Research and practice in challenging times in diverse cultural contexts and fields of practice. The accounts discussed here are those referred to in the literature section, The contexts include those of practitioner-researchers living and working in India, Pakistan, Nepal, South Africa and Hawaii drawing on their embodied cultural knowledges; knowledges sometimes ‘categorised’ as those created in the ‘global south’, ‘indigenous’ cultures and ‘Eastern Wisdom’.

The discussion is focused on the implications of our innovative, educational research and pedagogical practices and; scholarly narratives, about our transformative educational research and pedagogical practices in using Living Educational Theory Research to address challenging socio-political contexts. Our meaning of praxis is that of ‘living-educational-theory praxis’ (Huxtable, 2012) where praxis is understood as theory and practice held together formed and informed by the practitioner’s embodied values of human flourishing which give meaning and purpose to their practice.

This connects with our understanding of what is educational as learning with values of human flourishing. In Living Educational Theory Research, we are continuously deepening and extending our cognitive range and concerns in our understandings of global and local socio-political contexts. This is shown in each living-educational-theory that is strengthened in relation to a validation process focused on enhancing an explanation’s comprehensibility, evidence, sociohistorical and sociocultural understandings and authenticity in terms of values of human flourishing.

As we offer an alternative to the hegemony of technical rationality, we use Living Educational Theory Research we accept Schön’s (1995) analysis of the need for a new epistemology for the new scholarship. Our epistemology defines the nature of the explanations we are offering.

These explanations include both what Foucault (Rabinow, 1991, p. 74) describes as a battle around truth or regimes of truth and the different battle about the ensemble of truths which are to be discovered and accepted. According to Foucault “Truth” is to be understood as a system of ordered procedures for the production, regulation, distribution, circulation and operation of statement. In contributing to a new politics of truth, from the perspective of Living Educational Theory Research, we take into account Ryle’s (1973, p. 31) point about avoiding the ‘intellectualist legend’. We do this by grounding our inquiries within practical questions of the kind, ‘How do I improve my professional practice, with values of human flourishing?’ It is important to recognise that the ‘I’ in a question of the kind, ‘How do I improve my practice?’ is a relationally dynamic ‘I’ that exists within a community of ‘we’. In our community-based educational research we recognise that values can express both real and apparent conflicts and tensions, between the needs of individual people and those of local, national and international communities. The conflicts can be acknowledged and faced, within the living boundaries of cooperative i~we relationships (e.g. Whitehead & Huxtable, 2006; Huxtable, 2012; Whitehead & Huxtable, 2022).

Interim Conclusion and Implications

Our conclusion is in the form of questions to you, the reader, as to whether we have offered you a convincing evidence and values-based analysis that:

- i. contributes to the realisation of the aims of scholars engaged in Transformative Educational Research and Sustainable Development (TERSD), which are to conceive, enact, and flourish the depth and scope of transformative capabilities, collaboration, embodied practice, and praxis in education and research.
 - ii. expands awareness of our situatedness and created a harmonious space by strengthening and enlarging an international network of transformative practitioners.
 - iii. cultivated a vision of greater openness.
 - iv. shared our innovative praxis-driven educational research and pedagogical practices in overcoming challenging socio-political contexts - scholarly narratives about our transformative educational research and pedagogical practices.
 - v. promoted equity, empowerment and enhanced meaningfulness in educational research and practice.
 - vi. Addressed epistemological tensions of inequity and injustice.
- We have explored more implications of the above ideas most recently in our paper on ‘Developing a Living Educational Theory Research Approach to Community-Based Educational Research’ (Whitehead & Huxtable, 2022). Do please access this from the references section below and respond to our most recent research. We hope that you will join us in our contributions to the next steps.

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Experiences of Growing up with Folktales

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Abstract

After the dinner that followed a tiring day in the cornfield, we would sit on the porch filled with a pile of corn cobs. It would be late August, so sitting outside the house would feel so cool. I would be busy husking the corncobs with my grandfather, father, mother, and siblings. To keep us awake and active, grandfather would start telling folktales. The only tale I can still remember from these evening family sitting was about the thirsty crow and how he filled the pot with pebbles to bring the level of water up he could drink. The crow was so intelligent, or so I thought. The primary school in my village offered education only up to grade 3. So, after I passed grade 3, moved to my maternal home so I could continue to grade 4 with my cousins. The maternal family was large with maternal uncles and uncles and cousins. Grandfather was a local pundit so he would be telling stories this way or the other. However, what brought everyone together with the storytelling, particularly folktales, was the corncob-husking evenings. Much of the husking happened on the upper floor of the cowshed. Once the husking started, someone would start the quiz called *gaun khane katha* i.e. village winning tales. They were not tales but witty questions failing to answer which one had to offer a village to the asker. Then came the folktales. An uncle would start a tale of a jackal who stole chicken or a pundit who could not eat even medicine because he had eaten too much rice pudding at a death anniversary feast at an inviting family. I spent four precious years with my maternal family learning the lessons of life not only from the family activities and discipline but also from folktales at the husking sessions. Moreover, the Nepali teacher told us a myriad of stories during the class. His stories not only entered us but taught us about our cultural heritage. In this presentation, participants will be invited to tell folktales they heard when they were children after the moderator tells one. Then, an open discussion will follow on the learning from the folktales that we all cherish. Please come to the panel with a unique folktale you heard in your childhood.

Transformation(?) Self and Others by applying the Lived Experiences as a Method in Autoethnography: Decolonizing Research Methodology

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Abstract

This autoethnographic study is to unfold my life lived experiences' stories of grown-up, academic and professional journey (paining, gaining and pleasures) by recalling, re-thinking, recollecting, and interpreting the cases, moments, events, and incidents with critical reflection and learning through storytelling with writing as method. For addressing purpose of my study, I derived three research questions for diving to my transformative journey and adapted the multi-paradigmatic research design by using writing as method and autoethnography inquiry as research methodology. I, myself being as the central subject of this research and telling my lived experiences hi/stories linking to the emancipatory interest- critical and transformative ways of knowing with the transformative approach. I have conceptualized and analyzed my lived experiences of journey of my grown up, schooling and professional worlds. I derived my stories as my biography for this autoethnography by storytelling as per my context and outline the methodology approach.

Keywords: Lived experiences, writing, method and methodology

Introduction

As my lived experiences of grown-up, academic and professional worlds, I have unfolded the narrative stories from overaged student to the researcher. I unpack and interpret the different phenomena of my hi/stories by declaring my positioning within this inquiry and explaining my transforming journey of my life by introducing my lived experiences as a metaphorical journey of pain, gaining and pleasures. I develop three chapters to address my three research questions based on my journey of grown up, schooling and professional worlds, which I have listed and discussed with different concepts as my transformative journey of life as writing with some metaphors (mainly pain, gaining and pleasures), stages, incidents, and images (photos, reflective images, and quotes). I have thematized the concepts of Inclusive and Child Friendly School Approaches from my journey of schooling are linked to differentiated instructions, multilingual education, peer and cooperative learning and communicative language teaching and important for retaining the diverse learners and enriching the learning outcomes.

I am unfolding my lived experiences and stories to explore the wider inclusive development practices through adult education for excluded women based on social, cultural, and educational phenomena and want to share my professional world view by study. This is my first attempt to explore my untold stories of schooling and professional life with academically rich inquiry. Moreover, I am excited and critically conscious while deriving my concepts towards transformative journey through this inquiry. Furthermore, my two decades experiences journey of NGO worker that might be useful for practicing fulfilling the social justice, inclusion, participation and empowerment of excluded in education and development practices. I am happy to share my painful but gainful transformative academic and professional journey.

My Painful Grown up: My Stolen Childhood

As a preschool aged child (3-5), I had no opportunities for early learning, and my cognitive development was affected due to my health and nutrition situation. As an out of school children (school dropped) till ten years, perhaps, my learning activities were disturbed. Piaget believed that children move through four stages during their development. He names the stages as follows; "Sensorimotor, Preoperational, Concrete operations, and Formal operational stages"

(Heatherly & Anna, 1974, as cited in Mahzabin, 2013, p.1). According to these four stages of cognitive development from birth to age 12 and up (sensorimotor, preoperational, concrete preoperational, and formal operational), my preoperational and concrete operational stages (ages 2–11 years) were disturbed. For ages of 2 and 7, children can learn the language and represent things, places, and events symbolically through speech, art, and physical objects. Piaget's theory of cognitive development in children, which proposed that children's cognitive skills progress through four stages in which new information from experience is taken in and understood. As per my early learnings, I just learned by experiences and actions from my mother and family.

Child health and nutrition and early childhood development sectors were a low priority of the government at that time. Bhutta et al., (as cited in Black et al., 2019, p.4) claims that the undernourished or anemic preschoolers are less likely to explore their environments and interact socially, compared with adequately nourished peers. After suffering malnutrition, not only discontinued by the school, I also left my school friends as well as friends of my surrounding. My interactive learning environment with friends was disturbed during staying at Hospital and as well as at home.

Inclusive Pedagogy and Child Friendly School Approach

My study is based on my lived experiences of journey of schooling as an overaged student. I derive my school life hi/stories by recalling, rethinking, revising, and recollecting the different events, cases, movements, memories, images, dialogues, and I use these as narratives and interpret through the different concepts by linking with literatures and theories. As an overage student, I experienced that diverse learners (poor, Dalit, ethnic minorities, disabled, slow and low performers) are excluded in teaching learning process. Based on the interests and capacity of learners, teachers need to use the interactive and participatory classroom activities by engaging all learners for making inclusive teaching and learning process and adopt violence free school without any punishment as child friendly teaching learning process.

Furthermore, schools need to have supportive environments with playground, sanitation, fencing, school gardening, sitting arrangement, school library, safe, sound, and well-ventilated classrooms are major components of child friendly school environment. School classrooms may have different learners as slow and gifted learners, over and underage learners, different language speakers, having a different background, cultural orientations as the learners' diversity. According to Wan (2016) differentiation instructions emphasizes the roles of teachers who must address students' diversity in readiness, interest, and learning profile.

Differentiated instruction is a teaching theory based on the premise that instructional approaches should vary and be adapted in relation to individual and diverse students in classrooms (Tomlinson, 2001). In addition, as per the argument of Vygotsky, learning awakens a variety of internal developmental processes that can operate only when the child is interacting with people in his environment and in cooperation with his peers (Schut, 2016). In general, the heart of the matter in education is the interaction between the student and the teacher. It is in this process that quality education is created. (Education International, 2003 as cited in UNICEF, 2009). Once these two processes are internalized, they become part of the child's independent developmental achievement (Vygotsky, 1978)). A teacher knows how to deal with students; she can always find the right triggers that will make them focus on the tasks given to them (Kapur, 2007, p. 105).

Inclusive and Participatory Development Approach-Putting the last First

The phenomenon of putting the last first (Chamber, 1983) is my standpoint for engaging and practicing the inclusive and participatory development approach for excluded groups in development initiatives through literacy. The participatory development approaches and methodologies are interpreting and applying selectively in development sector. According to Thecla (2011), "the participatory development theory is widely accepted, its variety of practices

and interventions at the micro-level are challenging for authentic participation, from both beneficiary and community-development workers' perspectives" (pp.2-3). I applied this perspective in literacy interventions as community development by including the excluded girls and women. By social mobilization, I have engaged to contribute for participation and empowerment of excluded girls and women as main actors through literacy for transforming(?) their wellbeing. However, still, the marginalized and deprived girls and women of the community are excluded in the decision-making process in development initiatives and not treated as active participation.

The issues of inclusion(participation) and empowerment (decision making process) of excluded girls and women are less discussed in NGOs' development interventions with inclusive development approach for transforming(?) self and others. The development agencies and NGOs are still not giving priority for enriching of capabilities of excluded communities. According to Giddens (1984), an actor-oriented approach to development derives from the notion of agency which is based on knowledge ability and capability of human actors (Turner, 2007) for their own development and wellbeing. For transforming(?) the excluded by social development interventions, the knowledge ability, and capabilities of main actors of development is important as actor-oriented and inclusive development approach. Finally, Pouw and Gupta (2017) state that there is debate regarding the content of inclusive development which focus exclusively on social and economic inclusiveness, others on social and relational or political inclusiveness, explained that it includes social, ecological, and relational inclusiveness.

REFLECT and Transformative Learning in Adult Education

Freire (1970) explains that our education needs to address the social, economic, and political development of socially oppressed people and groups. As my experiences during conducting functional literacy classes, we had considered to develop the awareness packages as per needs of social, economic, and cultural context of the illiterate groups including women and out of school children and adapted the REFLECT approach for analyzing the situation before and during conducting the literacy classes. The REFLECT sessions supports for women's participation in family and community, and changes in the gender division of labor. Furthermore, it supports to sensitize men as well as women to gender issues, especially if the implementing agency is gender sensitive (Cottingham et al., 1998). According to Schnepfleitner and Ferreira (2021), the educators should be engaged the learners in learning activities by interacting with their experiences and the learning sharing can be taken as the key messages for literacy classes. Transformative learning is generally traced back as critical pedagogy outlined as the work of Pedagogy of the Oppressed (Freire1970). Freire claims for a new relationship between teacher and learner in literacy classes as well where both could engage actively in a manner that created space for learning on both sides. REFLECT helps people to develop their capability to critically analyze their own environment and issues support to write about their own lives and their world (Finish Refugee Council, 2016).

The REFLECT approach supports the learner-centered pedagogical style for learners of literacy classes. Our schoolteachers just repeated the past curriculum and deposited the contents without interactive classroom activities. Furthermore, schoolteachers delivered the contents of textbooks without critical pedagogy as the transformative ways of learning practices of diverse learners were missing at current classroom activities. As my experiences of literacy programs, initially, I observed and experienced that the literacy and out of school children's classes were found these were based on the formal mode of teaching and learning practices as schoolteachers (most of the adult literacy class and out of school children classes facilitators were schoolteachers). As per my reflection and transformative learning after my engagement in the functional literacy, adult literacy class teachers practiced and encouraged for sharing their learnings to others. ALC teachers gave the problem to participants by asking questions related to their daily life. Participants were encouraged to discuss the problems and solved the problems

within the group as per their experiences. Mezirow came to define transformative learning as ‘learning that transforms problematic frames of references with the sets of fixed assumptions and expectations (habits of mind, meaning perspectives, mindsets) by making them more inclusive, discriminating, open, reflective, and emotionally able to change’ (Mezirow, 2003, p. 58-59). After these findings of the literacy class, literacy interventions changed the approach and applied as REFLECT approach developed based on Freire's pedagogy of oppressed for Functional Literacy Program (FLC). Foundation Enabling (2014) highlights that this concept supports to include the excluded women and out of schoolgirls in literacy interventions with their real participation and empowerment for reflection of their experiences. It also encourages to engage in development initiatives and identify the problems and solutions in functional literacy classes by reflection their learning and experience to others. It is also supported the Participatory Rural Appraisal (PRA) methodologies as Robert Chamber for assessment of their community situation.

Writing as Method in Autoethnography: Decolonizing the Methodology

I have dived into this research while agreeing with Ellis and Bochner (2000; as cited in Pandey, 2011, p. 32) who state that autoethnographic genre of writing and research that displays multiple layers of consciousness, connecting the personal to the cultural. For most of us, autoethnography is not simply a way of knowing about the world; it has become a way of being in the world, one that requires living consciously, emotionally, and reflexively. Using self-study as the basis for my research brought me to the idea of using a methodological approach of autoethnography that is “an autobiographical genre of research that displays multiple layers of consciousness, connecting the personal to the cultural” (Ellis and Bochner, 2000, p. 739).

What is the value of my life? Where is my positioning in society? How am I transforming in the academic and professional worlds? When why and how my bloom of childhood has been stolen by the situations? These questions are asking myself in this value-laden inquiry. How am I perceiving the values and beliefs and valuing them in my whole academic and professional world? I consider my axiological standpoint as philosophical world views of my values by being and becoming inclusive and empowered learners and professionals to ensure inclusiveness in teaching and learning as well as development discourses. This is the axiological assumption that characterizes qualitative research. Axiology is the way of valuing associates with values and beliefs and influences the research. ‘I’ is an integral part of my society, and my values, beliefs, thoughts, ideas, and actions are influenced by the day-to-day events and actions of my society.

I generate my narratives hi/stories through major actions and events by recalling, rethinking, and recollecting as storytelling. The narratives of memories, events, stories, and dialogues are associated with my own experiences based on my experiences of my grown-up, schooling, and professional worlds which govern the whole inquiry process of my study. I employ postmodernism as a key referent of research paradigm for knowing the critical issues through multiple forms of epistemological reflection, expressions, and logics. As acceptance of notion of interpretivism, criticalism and postmodernism as multi-paradigmatic research design, I have used autoethnography as a key theoretical referent in my research methodology through autobiographical narratives as storytelling narratives by helps of writing as method.

I use auto/ethnographic method of inquiry with reflective writing as it is a form of qualitative research where I explore my experiences as a focus of investigation. Spray (2001) believes that the autoethnography as a self-narrative that critiques the situatedness of self with others in social contexts (p.710). In addition, Ellis and Bochner (2000) describe that “autobiographies that self-consciously explore the interplay of the introspective, personally engaged self with cultural descriptions mediated through language, history, and ethnographic explanation” (p. 742). As per my journey of life, I have written my hi/stories as my biographies

and made the meaning by interpreting the different cases, events, moments of my growing-up, schooling, and professional worlds.

Discussion and Findings

In this inquiry, I have presented my stories, cases, events, moments, and reflection that might articulate the context of inclusive pedagogy and participatory development approach in our education and my perceptions as well as my practices governed by “empirically grounded laws” (Grundy, 1987 as cited in Manandhar, 2021). In this case, the technical interest helpful in my practices, as a reference point, in my research. For addressing my first research question, I realize that my technical interest based on my experiences on technical know to adapt the inclusive and child-friendly school approach. As per eyewitness of excluded teaching and learning process, I experienced that inclusive and child friendly teaching learning is essential for including all diverse. I have interacted with teachers and my peers in schooling worlds with consensual understanding of the inclusive and child friendly school approach. Finally, the emancipatory interests are related to a taxonomy of knowledge constitutive interests, also referred to as cognitive interests which involve for capacity to recognize that something is wrong or unjust and to try to make it right.

As per my first research question, I identified and learned that my class was running by one-way teacher-centered teaching process which was not interactive inclusive for all children in my conventional school. After my reflection from teacher-centered teaching process, I realized that the inclusive and learner -center teaching and learning process is needed in the classroom which is effective for all learners. Bulter (1997) gives more emphasis the investigation of Habermas' ideas on how knowledge is generated and the idea that everyone has his/her own cognitive interest was important for curriculum developers, teachers, and learners of all ages.

Conceptually, I have linked my events to my schooling and generated different concepts and discussed with literatures. Principally, I have derived the concepts of Inclusive and Child Friendly School and Empowering the excluded students for engaging in teaching learning process in this chapter. In Inclusive and Child Friendly School approaches linked to differentiated instructions, multilingual education, supports of game and sport in education, peer cooperative learning and communicative language teaching and important of inclusive learning.

As per my second research question, I have unfolded my lived experiences on facing the challenges in science education as an excluded student from government school. An unfinished journey of college life's events, moments and stories used as my research data linked with different concepts with literatures and theories. As per faced the dilemmas to select the college subject due to absent of school counselling and setting the career goals. I generated the concepts practical vs theoretic education, peer, and cooperative learning for minimizing academic stresses. Independently, I searched the best college as my scores of SLC. As my English language proficiency (started English in grade 4 after age of 13), I felt more difficulties to engage learning activities in my college life. Then, I had consulted with my classmates and seeking the supports to minimize my pain by coming from government school. Importantly, peer and cooperative learning supported to boost me to learn, and I shifted from low performer student of SLC to Intermediate of Science graduated student by support with peer education by social interaction with my friends. Social interaction plays a fundamental role in the process of learning.

As per my third research question, I derived my lived experiences of participatory inclusive development approach through literacy for excluded girls and women in my professional worlds and make shifts(?) and practice the participatory inclusive development approach. In response to this, I established my inquiry by discussing some event, moments, cases, and emerging issues for inclusive and participatory development approach through literacy interventions for excluded girls and women. Furthermore, I discussed issues of agendas

setting by the outsiders and how the outsiders transforming(?) as insiders(myself) for inclusive participatory development phenomena in the society as my lived experiences of NGO activist as professional world.

I explored the participatory development approach by following the principle of Robert Chamber-Putting the last first. From Literacy surveyor to NGO Activist, my practices of professional worlds are based on the inclusive and participatory development approach through literacy interventions for excluded girls and women. I have engaged social and cultural leaders, women as major actors in literacy as entry point of social development. Long gave important on more sophisticated treatment of social change and development which emphasized “the central significance of ‘human agency’ and self-organizing processes, and the mutual determination of so-called ‘internal’ and ‘external’ factors and relationships” (Long, 1984 as cited in Kontinen et al., 2004, pp. 14-15). Similarly, as per the Habermas’s, Knowledge Constitutive Interest as practical interest which is related to subject to a constitutive interest in the preservation and expansion of the intersubjectivity of possible action-orienting mutual understanding.

Furthermore, I used actor-oriented approach developed by Norman Long for discussion girls and women as the actors in literacy interventions for solving their own problems by lacking equal participation. The main task of actor-oriented analysis is to “identify and characterize differing actors’ practices, strategies and perspectives, and the specific situation in which they emerge and interplay with other actors and Adult literacy class participants learned by interaction each other within the class and outside the class by developing their own reliable beliefs, exploring, and validating their fidelity, and making informed decisions are fundamental to the adult learning process (Taylor, 2008). Interaction and dialogue between participants and REFLECT facilitator is important in the REFLECT sessions. Dialogue is crucial in every aspect of participatory learning, and in the whole process of transformation (Finnish Refugee Council, 2016). Critically, I observed the learning of participants of adult literacy and the participants involved in the group discussion.

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In 1994, I engaged in assessment of literacy class to identify the contribution of interventions of adult literacy classes to the group mobilization and saving and credit schemes. Dalit, poor women faced the challenges to attend the adult literacy and post literacy classes due to time constraints and other barriers including socio-economic status. In general, the basic program consists of primary course for six months and the post-literacy course (continuing study after the primary course) for three months (Nagaoka, 2002). Firstly, adult education interventions were focused only for literacy and numeracy. The fundamental aim of literacy program is to study reading and writing of Nepali and non-formal education has mainly developed focusing on the literacy program for adult women (Nagaoka, 2002). Then, literacy intervention adapted the REFLECT approach for capacitating the women through group sessions on gender roles, discriminations and women rights, livelihood and environment issues before literacy and numeracy skills. After this, NGO started the teaching and learning activities through literacy classes, then women stated to learn the letters, words, numbers, and function of numbers. I closely observed the adult learning and capabilities through the literacy and REFLECT approach. Adult learning capabilities discussed the development of our uniquely adult capacity to become critically self-reflective as critical-dialectical and the reflective

judgment assessment of assumptions and expectations supporting beliefs, values, and feelings (Mezirow, 2003).

Reflection and Conclusion

As per the discussion and findings, I reflect my technical interest as constitutive interest of Habermas based on my experiences on technical know-how to adapt the inclusive and child-friendly school approach and experienced on inclusive and participatory development approaches since starting of my professional worlds and adapted the approach for transforming(?) self and others. Similarly, I have practiced and reflected on REFLECT (Regenerated Freirean Literacy through Empowering Community Techniques- developed based on Freire's pedagogy of oppressed) as Functional Literacy Program (FLC). REFLECT empowers socially excluded groups and transformation(?). Moreover, I would like to present my emergent learnings throughout this journey of carrying out this research inquiry with the critical reflections on those experiences and implications of learnings to other in future.

As per reflections of my "stolen childhood" the health and nutrition and early care are major causes for discontinued the learning continuity of children as well as crisis in early learning and development. The parental care and nurturing are vital for early learning in home. On top of that reality mentioned above, the mystery or a miracle can be in my life is I could complete my journey from a mal-nutritional child to a healthy meritorious student of the class in the context of my village. It was historic which was made possible only with the intensive support of my generous maternal uncle. This was the first transformation that I directly experienced in my life where my "stolen childhood" was recovered. Without this occurrence my life, it was totally impossible to dream about any future career.

I felt saddened when I was meant to "overaged student" in the class where I was supposed to sit at the back bench. I experienced exclusion in school. As my reflection of early grades experiences, the student-centered classroom and child center teaching learning process is essential for diverse learners of classroom. Teachers need to follow the interactive and inclusive class instructions in teaching and the pedagogy of teacher consider more interactive, engaging, and reflective learning from other learners. As the over aged, excluded children, I faced many painful difficulties for learning in my conventional school. I was alone as my age in lower primary level grades 1-3. I consulted my seniors of upper class when I felt difficulties to learn from classes. Thus, peer learning among the peers was rare. In terms of inclusiveness, all children attend school without any discriminations. No child left behind from right to education. A child friendly school; encourages child-centered education in a safe, healthy, and protective environment.

As my critical reflection of my lived experience of professional journey with involvement in NGO, I would like to conclude that the issues of inclusion (participation) and empowerment (decision making process) of excluded girls and women are less discussed in development discourse with inclusive and participatory development approach for transforming(?) self and others. Still, it is doubt that the involvement of NGOs in inclusive and participatory development approach may support or not for transforming the excluded girls and women. I engaged to give space of excluded women in literacy interventions and bring the voice of oppressed and excluded group of people to analyze and interpret and the social inclusion for their socio-cultural transformation along with literacy programmes and practice in this inquiry.

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Promoting Transformative Research for Better Contextual Holistic Understanding of Saudi Mathematics Education

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Societies are rapidly changing more than ever before. Societies in thirsty years ago are not the same as they are today. They have come along way over the years and have been affected by so many things, while education systems have been almost quite the same. Social research and especially education research should monitor and examine that changing and how it affects schooling. With so many changings in people lives, education is facing various challenges and problems as it has not kept up with changing societies. School problems are changing as well. Those challenges need to be addressed and problems need to be answered and solved.

I believe today's school problems should be discussed and studies with today's means. Yesterday's means was perfectly fitting yesterday's problems. Today's school problems are far more different in its aspects. It involves peoples rather than looking at classroom, textbooks and teaching and learning approaches humanlessly. Research has been a powerful way to address educations problems and challenges, and provide answers that are capable of creating and conceiving transformative solutions to the problems. To come up with innovative solutions, alternative way of addressing is needed. In this paper I advocate transformative research that would generate what can be learned as 'radical' innovations. "Perhaps the simplest way to describe Transformative Research is research that makes a radical difference, yields critical discourse, and changes in fundamental ways existing processes and systems. Transformative research is, therefore, research that is driven by ideas that stand a reasonable chance of radically changing our understanding of an important existing scientific concept or leading to the creation of a totally new paradigm or field of [education]" (Elrahman, Giannopoulos, 2011, pp.57).

What I intend in promoting transformative research is to encourage contextual understanding, facilitate social justice, promote pluralism and achieve holistic understanding. It is to go beyond merely explain law-like properties as the only main of education research (Taylor, 2016). I intend to encourage Saudi mathematics education researcher to go beyond observing (without involving in) school students' activities, further than measuring the general tendency of their behavior, achievements, resulting in prediction of larger group behavior. Also, I intend to empower Saudi educational researchers to go beyond supplementing measurement with structured interviews of a sample of students/teachers to confirm their reasons for learning/teaching in accordance with the interred pattern.

I found almost all Saudi educational research questions encompasses specific research area such as what the impact of such teaching approach on students' achievements is, or what is the relationship between students' attitudes to their academic achievement. With transformative research I advocate mathematics education researcher getting involve within their research and be part of the research trying to understand empathically students or teacher lived experience within schools, or to reflect on their own experience within schools. I would like to see research question focused on students learning experience and what do they find engaging, or how students' roles in inquiry learning activity would be shaped by their cultural background. Research question such as how researcher teaching practice is shaped by their belief about the purpose of education would be more meaningful to the research and would affect their teaching practicing more than taking the role of pointing to other teaching practice. Most important goal of my advocacy of transformative research is to empower Saudi education researchers to

perceive the hegemonized nature of education and research, to understand its harmful effect on their roles, and to identify the source. It is to empower them also to organize as a lobby group, challenge the status-quo, advocate on their behalf to have school transform. Research questions such as how I can empower my students to become more creative thinkers would be more suitable to that goal of transformative research. Moreover, transformative researchers would be inspired and empowered to use artistic expression to represent multiple realities, disrupting what has been taken-for-granted conceptions. A question about a teacher representing the rich complexity of the beliefs that shape their teaching practice would achieve that goal. (Taylor, 2014; Taylor, Taylor, Luitel, 2012).

In this paper I aim to critically explore my experience in promoting transformative educational research within Saudi mathematics educational research context; extremely rigid positivist-objectivist research environment. Having finished my PhD in Mathematics education using transformative research, I found this relatively new area of research very helpful and powerful in addressing educational issues within Saudi mathematics education contexts. It fits diverse educational contexts. Promoting transformative research is to ensure that Saudi mathematics education researchers maintain an enabling rather than stifling role (Elrahman, Giannopoulos, 2011).

Positivism is a widespread research paradigm prevailed by almost all the Saudi educational researchers, particularly mathematics education educators. Being inspired by the emancipatory interest of the Habermas's knowledge-cognitive theory, I endeavor to transform the current educational research culture in the Saudi context to include alternative educational research paradigms. As a critical turn is necessary to emancipate (Cohen, Manion & Morrison, 2000), I would express my critical perspective regarding the dominant positivist research paradigm that seems to shape the culture of the Saudi educational research and decides the professional conducting research (Taylor, 2014). I endeavor to de-dominate the prevalent educational practices of the dominant ideology of quantitative research such as decontextualized or dehumanized research, in order to create an emancipatory research culture in which educational researchers develop critical consciousness. My critical perspective is based on my critical reflections on my experiences of that culture as an educational researcher in Saudi Arabia.

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Postcolonial Pedagogy: Understanding and Experience of Secondary Level English Teacher

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Abstract

The issue of postcolonial pedagogy is a well-established issue in the field of academics. With the aim of exploring the practices of postcolonial pedagogy in Nepali context at secondary level of Nepal, the current study had been conducted for enhancing the knowledge of English language teaching. The study explored the understanding and experience of secondary level English teachers on postcolonial pedagogy based on the data achieved from the field. Applying the qualitative research design, the current study revealed the reality of practices of postcolonial pedagogy in Nepali context based on the purposive sampling. Centering on the participants' perspective, the study claims that the teachers teaching at secondary level are not clear with the concept of postcolonial pedagogy. The content and delivery level somehow seem to be incorporated. The practices of teachers are based on the thought of Western world of elitism.

Keywords: postcolonial pedagogy, cultural hybridity, critical learning

Introduction

Nepal, though not colonized physically, can be described as a third space (Bhabha, 2009) as people coexist with diverse language, caste, religion, and social cultural identity. Further, because of business, education, and job people are obliged to leave their original land and live in the location, making the local people feel that they have been colonized. They feel themselves as an oppressed group and the majority group feels as if they are oppressor. Nepalese are linguistically, culturally, ideologically, and materially colonized. Similarly, experience is undergone by the people in any neo-colonized world (Bertolt, 2018).

The West was powerful in the world and it had colonized many countries in the east and African content Said (2003). The colonized even think that the colonizer is superior in every matter than colonized. Colonized wants to be closed with colonizers and make them adjust in a mixed cultural society. Finally, after a long time, they come to a hybridity (Bhabha, 1995) which will be accepted by both cultural groups. Liberal education is the demand of postcolonial pedagogy (Enslin, 2017). The study was conducted with the aim of exploring the practices of postcolonial pedagogy in Nepali context at secondary level.

Postcolonial Theory

Colonialism is taken as a power that imposes a standard ideology and the ideology is used to measure and perceive the subjective reality of the world (Macedo, 1999). The colonized condition can certainly be found in early childhood classrooms when school quality in the 'non-west' begins to be measured in terms of 'Western' standards (Gupta, 2015). The transactional nature of the colonized condition may be described as a negotiation, a powerful and lingering interdependence between the colonized and the colonizer (Gandhi, 1998), and two-way dialogue between the philosophies of the colonized and the colonizer (Trivedi, 1993). The use of postcolonial theory helps us to address the complexities of the world and the complexities of the classroom. Bhabha (2009) defines such complexities as cultural complexities and in his words as cultural hybridization.

Tikly (1999) claims that the cultural attention being drawn to the trans-cultural mixing and exchange, which is the result of cultural hybridization. Moreover, Viruru (2005) writes 'postcolonial theory is not limited to the study of how nations have recovered from

colonization, but is more concerned with the adopting of an activist position, seeking social transformation' (9). In this paper, I used postcolonial theory to explore the level of knowledge production with the understanding of English language teachers of secondary level in the context of Nepal.

Research Method

To achieve my goal, as a researcher, I used qualitative research methodology. Strauss and Corbin (1998) explained that "Qualitative methods can be used to obtain the intricate details about phenomena such as feelings, thought processes, and emotions that are difficult to extract or learn about through more conventional methods (p. 11)." I selected the participants teaching at a school purposely (Creswell, 2012). I selected the teachers teaching ELT. To collect the data in-depth interviews were used (Anderson, 2010). In order to find out the theme, those data were transcribed, sub-categorized, categorized and finally developed for an idea. For this, the data were interpreted through the lens of postcolonial pedagogy.

Cultural Hybridity

Classroom represents the society (Brint, 2020) from which students come to study in a school. The diversity of caste, culture, religion, language, gender, and age make the society living and dynamic. It is the classroom where such diversity of society reflects and makes the classroom lively. Students share their culture, language, religion, festival, understanding, and experience with their peers or friends. Peers listen to them; understand them and adjust with their friends' or peers' culture and feelings. Students are free to celebrate their birthday at school. They celebrate according to their interest and desire. My participants claim that *all the students celebrate their birthday at school. During the birthday, they collect money and buy necessary things and enjoy it together. Moreover, there won't be any restriction of caste, culture, language, social group, and gender. The celebration is different from their own particular cultural celebration. The sense of equality is seen in their celebration and entertainment.* There exists a hybridity in culture (Bhabha, 2009). School activities mix up with all cultural activities where a sense of fear is not seen. The sign and symbol suppression and domination are not seen in the activities.

School itself is a third space (Bhabha, 2009) for all the students. All the students come from their home representing their own culture, norm, value. It is a new space for the students. However, all enjoy being together exchanging their feelings, thoughts, experiences, and ideas. Coming to school has not become a pressure to them. When they will be stuck at their home because of their private matters or because of the order of their parents, they feel uneasy the whole day at their home. They know that school is not their home however they enjoy school. Students love school as equal to their own house; they never feel that they are away from their own house when they are at school.

Sense of Freedom

White people from Europe were the supreme people and elite one, but South Asian and African people were considered as uneducated, blunt, and uncivilized (Said, 2003). Europeans colonized several countries of the world due to such supremacy. They still feel themselves as a centre power of the world: education, economy, science, and technology. This perspective of understanding was privileged during the colonial world. The lens of western world was used to see the eastern people thinking themselves all in all.

In the classroom, there is equality. There is not the feeling of supremacy even if the student is from a family of rich economic and social cultural background. *Participants in their classroom behave equally to all the students whether they are from rich economic background or poor economic background. All the cultures are believed to be equal. Homework is assigned differently to the students when the text of the festival is taught. Dashain is assigned to the students of Brahmin and Chhetri community; ID is assigned to the students of Muslim community; Badaki Aaitawar is assigned to the students of Tharu community; and Holi is assigned to the students of Awadhi community.* This sense of feeling and practice is because of

postcolonial thought. The postcolonial thought brought a sense of feeling of equality and equity where the students can enjoy the activities that are practiced in their classroom for teaching and learning.

Critical Learning

Nepalese culture is more strong and advanced. It has organic flavor and still it has purity in nature. Culture is our identity and our pride; it shows the way of living as well as the history of Nepalese civilization. The books written in Nepalese culture with Nepalese flavor such as *Muna Madan* can be used for English language teaching. *Lunatic*, *Chariko Bilap*, and *Nepal Rahena Vane* are the best poems composed in Nepalese culture internalizing the Nepalese perspective. But, pedagogy of English language teaching has been lacking in the context of Nepal. Still, the philosophy of elitism has been working strongly and the pedagogy of teaching English loitering and not getting the proper way.

Indian English, Australian English, French English can exist in teaching English then why not Nepalese English. It is the responsibility of Nepalese English teachers to establish such a notion of teaching and to bring pedagogy away from the colonial world, towards the postcolonial world.

Missing the Ideas

Pedagogy in education was affected and still many societies have the concept of ambivalence (Bhabha, 2009). Still the schools are in search of such culture in text, such accent in pronunciation, and language for communication. Teachers and students are in search of native speakers of English in place of local speakers of English which is a colonial concept. They believe on Western pronunciation, accent, grammar, culture, and language instead of their own. Their elitist philosophy keeps them colonized so that they cannot see out of the colonial world even in the postmodern era.

My participants share the idea of diversity of culture, caste, and language and sometimes they practice in the classroom. They were surprised when I talked about the use of postcolonial concepts in the classroom. They expressed a narrow concept of it and they were not aware of its micro level of concept. Slowly, when I raised the matter of culture, language, festivals, they expressed their acceptance of using it as their pedagogy.

My participants lack the concept of local text, local culture, and local pronunciation in English. In the present context of Nepal, local governments have been playing a role of designing local curriculum for school students. Students of primary level can get the chance to read at school in their mother tongue. This practice has been developed and implemented in Nepal for the better cognitive development of small students. Local curriculum and use of mother tongue develop a sense of affinity which encourages students for the study diving in the cultural ecstasy. Local curriculum incorporates local matters in which students can bliss as their own property and identity.

Discussion

Postcolonial pedagogy does not use narrative pedagogy (Freire, 2005). However, the colonial era seems to be deeply rooted in the mind of elitism. Colonial era started from the colonial world. It is Western who introduced the colonial world and kept themselves in the supreme power along with economy, education, social transformation, science, technology, and development. They dispersed their language, culture, history, and literature in different countries of the world being colonizers. The colonized world accepted their supremacy slowly and gradually. After the long race of acceptance, it is internalized by the heart of the colonized world.

As the others, the participants had such a lens through which they visualized their world of pedagogy. At the early stage of collecting data, they seemed to be surprised; they could not come out of the pond of the colonial world. My probing questions made it easy to understand the issue so that they presented the diverse culture which they practice in their classroom when

they interact with their students. Use of Tharu and Awadhi mother tongue facilitates learners to understand the content in the class (Cuartas Alvarez, L. F., 2014; Jadallah & Hassan, 2010). They argue that they do not hesitate to use the local mother tongue to facilitate the learners. Teachers practice some part of local culture in some context only but not localized most often.

Conclusion

In the postcolonial world, postcolonial pedagogy seems to be loitering. English language teaching teachers are pursuing fancied pedagogy in the name of postcolonial pedagogy. Though they use tit-bits of the concept of postcolonial teaching, still they are unable to catch the right tract in the field of teaching and learning. However, the local government has taken responsibility for designing and implementing the local curriculum, it is in progress at the speed of tortoise and again it is up to the primary level and it is not a compulsory course. The issue of local culture and local text need to be addressed timely at different levels.

On the one hand, teachers teaching at secondary level lack the concept of postcolonial pedagogy, on the other hand, they have a sort of mind set about this pedagogy which they use to judge the teaching and learning activities. They incorporate elitism in their pedagogy; therefore their measuring parameter is not local but Western. Nepalese cultural diversity, religious diversity, unique cultural accent cannot be judged by designing the Western parameter. The concepts of hybridity and ambivalence have not been well established in teaching and learning activities.

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A Study on Linkage of On-the-Job Training and Perceived Professional Success of Interior Designers in Nepal

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Abstract

The purpose of this study was to explore the linkage of on-the-job training and perceived professional success of Interior designers in Nepal. This study used exploratory qualitative methods as a research design. Qualitative data has been generated through face to face interviews with 9 Interior designers with more than 5 years of experience. These collected data were coded, categorized and three themes were generated. This study explores that there is significance of OJT in the world of Interior designing industry as it prepares fresh graduates for the professional world and helps to maintain the balance between theoretical and practical knowledge. Effectiveness of OJT in the world of Interior designing is also linked with perceived professional success. This is measured by the trainer's competency, training duration, training transfer, and market exposure. Perspective towards success in the world of Interior designing industry is a subject factor. Industrial knowledge, business modality, working environment, professional competencies, financial achievement, volume of business and sense of personal satisfaction is linked with the perspective towards success in this industry. Time, energy, and talents are the external markers of success. Delegation of work learned from OJT helped IDs to both objective and subjective success. The research also finds the linkage of OJT with the perceived professional success of Interior designers. The research findings will support recent interior designer graduates, interior designing academic institutions, participants to improve participants' learning.

Keywords: On-the-job training, perceived professional success, Interior Designing Industry, Interior Designers

Introduction

Various colleges and universities produce Interior designers to enter the job market. Basically, students are provided with industrial knowledge and practical trainings during the final semester and beside that they are equipped with theory and lecturing. After their degree, they should prepare themselves and have to choose their own journey whether to pursue further study, start their own business, be a freelancer, or just accept any offer letter from the consulting and fabrication firms, architect firms, contractors or original equipment manufacturers. The skills and knowledge that they have learned in the classroom, they are unable to apply it in the workplace (Aouda, 2014). Therefore, practical knowledge and on-the-job trainings play vital role.

The recent decades have witnessed drastic changes in Nepali lifestyle. The interior designing sector is also booming in Nepali market. Therefore, the interest in interior design education is also increasing. Traditionally, linkage between the knowledge and skills produced through colleges have tended to be quite flexible and open-ended. But, due to technological advancement and globalization, competencies in the workplace is demanded by employers (Pang et al., 2018).

This research study has been conducted to explore the linkage of on the job trainings and perceived professional success in of Interior Designers. The studies in this arena are limited and there are still more factors and areas to be explored. So, the research on this topic will help interior designers to understand the importance of on the training and what should be the next move of recent graduates. It will also help them to make better career option. It will develop an

understanding of factors that will make successful interior designer. Further, it will contribute to the academe by generating new knowledge in terms of linkage of on-the-job training and perceived professional success. And it will also contribute to how the success is perceived by the Interior designers themselves. So, the researcher has aimed to address the research question -What is the linkage of on-the-job trainings and the perceived professional success of Interior Designers in Nepal?

Training and Development

A number of factors make interior design particularly difficult to analyze. They are rarely designed by one person for one person. Composing a wide variety of objects, both interiors and the objects contained are subject to continual use and modification has some exceptions. (with a few exceptions). Historical records for interiors are difficult to retrieve, especially for the period prior to the invention of photography (and the interior is difficult to capture photographically). Interiors are not mobile, so they present particular problems with the display. Above all, many interiors are private, posing additional challenges to the scholar (Lees-Maffei, 2008).

Training is a basic concept of human resource development. Its motive is to teach or develop any skills and knowledge or fitness that relate to any useful abilities. Being a highly useful tool, training can bring an employee into a position where they can complete their work smoothly, effectively and more importantly consistently (Patrick, 1992). Training has specific goals to increase the knowledge and skill of an employee for a specific job which definitely improves one's capability, capacity, productivity and performance. Institutes of technology (also known as technical colleges or polytechnics) provide the core content of apprenticeships. Additionally, to basic training for a trade, occupation, or profession, ongoing training can be used to maintain, upgrade, and update skills throughout a career. Some professions and occupations call this training professional development (Goldstein, 1991). The term training also pertains to the development of physical fitness regarding a specific area of expertise, such as sport, martial arts, military applications, and other occupations.

In the training and development process, an organization provides information or instructions regarding how employees can perform certain tasks better, by enhancing their knowledge and skills. Training is a short-term reactive process, whereas development is a continuous proactive process, designed for executives. In training, the aim is to develop additional skills, whereas in development, the aim is to develop a whole person. The training initiative is taken by the management in order to meet the needs of each employee at present. Individuals take the initiative when developing to meet future employee needs.

Professional development refers to different kinds of educational experiences that relate to an individual's work. When it comes to continuing further education, many executives are unwilling to invest in conferences and seminars for their employees. Completing graduate studies won't stop you from learning new things. Actually, professional development has merits that can sustain a long run path for a company. So, professional development helps employees not only to complete their profession but to become master of it. It should be an ongoing process that continues throughout an individual's career (Mizell, 2010). Actively pursuing professional development ensures that knowledge and skills stay relevant and up to date which allows employees to be aware of different trends and directions in their fields. So, there is always room for growth and improvement of professional skills, attitudes, and behavior. Having experience of attending some seminars/conferences surely sharpens the skills of employees within their profession.

On the Job Training (OJT), its Significance and Challenges

Researchers now widely accepted that there are two key aspects of training. First, there is the recognition that on-the-job training is an important example of an "investment" in human capital. Like any investment, there are initial costs. For on-the-job training, these costs include the time devoted by the worker and co-workers to learning skills that increase productivity plus the costs of any equipment and material required to teach these skills. Like any investment, the returns to these expenditures occur in future periods. For on-the-job training, these future returns are measured by the increased productivity of the worker during subsequent periods of employment. The second key aspect of on-the-job training is the distinction between "general" and "specific" on-the-job training. While all training increases the productivity of the worker at the firm providing the training, general training also increases the productivity of the worker at firms other than the one providing the training (Barron, Berger, & Black, 1997). So, on-the-job training plays a vital role increasing the productivity of employees and which could indirectly be linked to their perceived professional success.

As the name implies, On-the-Job Training (OJT) is an approach to acquiring new skills and competencies needed for a job in a real, or close to real, working environment. An example would be learning how to operate a tool or equipment in a live-work practice or simulated environment. Rather than show employees presentations or give them worksheets, they learn about the job through doing it. Workplace training is provided by a supervisor, manager, or another knowledgeable employee. During on-the-job training, new employees observe all aspects of the work they will encounter. During their training, they learn workplace expectations, equipment operation, and any other skills they need. Work-based training may take a few days to a few weeks, depending on the tasks to be performed. It is common for new employees to shadow other employees before doing tasks under supervision (Barron *et al.*, 1997). As job shadowing provides a far richer experience than reading a job description it allows to see and understand the nuances of a particular job. They will increase their satisfaction level after being able to observe how they need to do the job, the key deliverables expected from the job, and the employees with whom the job interacts.

Having said that, OJT can help with faster onboarding and getting an acceptable level of performance. It motivates employees to learn quicker and more effectively (Johari, & Jha, 2018). Being simpler training programs to set up, employers already have employees that know the job and a knowledge base to draw from. Employers don't need to set up complicated presentations, rather they need to pick a high-performing employee to train new staff. Besides this, trainees can learn easier for their job and can take small responsibility before completing training which results in employee retention (Barron *et al.*, 1989). Since, OJT shows employees what exactly they expect to complete and how to complete them, it allows companies to find the right people for the job because they show capability during the training process.

Over other training methods, OJT has a number of benefits. It can first be built to order. OJT has the advantage of being easily customized to the experiences and skills of individual trainees because it is typically conducted with one or two learners and a single trainer (Derouin & et al., 2005). Compared to other training methods, OJT has a number of benefits. It can first be built to order. OJT has the benefit of being easily customized to the experiences and abilities of each individual because it is often conducted with one or two trainees and a single trainer (Derouin & et al., 2005). Second, OJT can be used right away. The abilities acquired during OJT are typically directly applicable to the task at hand. It is frequently challenging to recognize how abilities can be immediately applied to a job during formal training. The importance of training to the job is easier to see because OJT occurs on the job and uses real job tools. Because of this, compared to other training programs, trainee incentive to learn may be higher in one (Derouin & et al, 2005). Third, OJT is affordable because it doesn't require participants

to leave their jobs and doesn't require businesses to engage external trainers. As a result, while conducting training, both trainees and trainers continue to work. This makes it possible for businesses to cut back on the indirect costs of training, like paying trainees who miss work, hiring workers to take their place, and paying to rent training facilities (Derouin & et al, 2005). Fourth, OJT is a demand-driven program. It may be made available at any time throughout the working day and wherever on the job site. It is likely that a trainer will be present to do OJT as necessary because trainers are frequently coworkers or line supervisors (Derouin & et al, 2005). Lastly, OJT could lead to improved training transfer. OJT occurs during actual job duties and in the genuine office setting. Due to these factors, OJT-related skills may be easier to apply on the job than those acquired via other forms of training (Derouin & et al, 2005).

Mullaney and Trask (1992) described some of the circumstances under which OJT might be an efficient alternative to more formal training methods. For instance, OJT might be used when only a small number of employees need to attend training. Such a situation might occur when new hires are introduced to the job or when veteran employees participate in refresher training. Because OJT is generally conducted one on one, it is particularly applicable during situations in which training needs to be offered for only a few employees at a time. When quick implementation of workplace changes is required, OJT may also be employed. Changes in work practices that occur often in organizations must be immediately communicated to employees and implemented. Employees might need to immediately grow used to new processes if a new safety plan is adopted, for instance. OJT might be utilized to quickly and simply impart this knowledge as it doesn't call for the usage of outside trainers or training facilities. OJT is a suitable alternative for firms that need to swiftly familiarize staff with new work practices (Derouin *et al.*, 2005).

Role of OJT in Interior Designing Industry

Learning is greatly impacted by how students perceive their educational experiences. Understanding these impressions, as well as other elements like prior knowledge, learning styles, and misunderstandings is crucial if one wants to teach effectively or develop teaching that will have the most favorable impact. Although student views have an influence, teachers and curriculum designers frequently fail to precisely predict students' initial expectations or their reactions to learning circumstances. Despite the fact that teachers spend a lot of time with students and were probably once students themselves, research has shown that it is not always safe to assume that their memories of their own experiences or their interpretations of current learning situations will result in understandings or perceptions that are similar to those of their students (Smith, 2013). On an academic level, design studios provide a great opportunity to convey the essence of research and collaboration through a more developed design process, while mental preparation, all along the learning process, is essential in providing fresh graduates with a great deal of understanding on what to expect from their future practices.

Even though relatively little empirical research has addressed the interior design studio so far, a consideration of the unique studio educational environment is necessary in order to compare variations between the atmosphere of the traditional classroom and the interior design studio. As a result, studies addressing architecture and landscape architecture, which are comparable to interior design studios, were included to the study of the literature (e.g., size, project-based method of instruction, and one-on-one faculty to student interaction). It should be emphasized that this study did not focus on the newly developing "e-studio" environment, which may or may not allow for direct student contact, but rather on the conventional studio setting (i.e., an educational setting where students are physically placed together in a common room using manual or digital production methods) (Hill, 2007).

In interior designing, people quickly learn what they need to do and perform their job on a good or acceptable level. Other traditional training is a long one where employees can't retain much information. Traditional training can be a lengthy process, and employees may not retain

much information. This means employees may need correction or retraining later on. With on-the-job training, employees learn precisely what their job entails and ask any questions that arise while shadowing coworkers (Saenab, Mahmud, & et al, 2014). On-the-job training helps to gain the hand on experience. As interior designing is about creative thinking and technical field, this training helps to reduce the challenges that arose due to difference in the academic and the professional world.

Research Methods

Researcher has used interpretivism philosophy for this study as it helps to create new and deeper understanding and interpretation of the world around us which will help to understand the linkage between the two variables. An exploratory research to discover ideas and insights on the linkage of on the job training and the perceived professional success of Interior designers of Nepal was conducted. The qualitative data collected from various sources through which patterns have been identified and theory have been established based on the general level of data focus.

Participants Selection

For this study, participants are Interior designers of Nepal. Interior designers are graduate of IEC college of Art and Fashion (BA in Interior Architecture), Kantipur International College (Bachelor of Interior Design), graduated from abroad, and all the members of Interior Designers Association of Nepal (IDEA).

Purposive sampling technique was used who have been working as an interior designer and are having more than 5 years of experience to conduct this study. In this study, 5 male Interior designers and 4 female interior designers were interviewed. The working experience of participants ranges from 5.5 years to 25 years.

Table 1

Participants' Characteristics

Participants	Age (Years)	Gender	Years of Experience
1	29	Female	6
2	40	Female	12
3	28	Male	10
4	55	Female	25
5	28	Male	5.5
6	48	Male	16
7	43	Female	20
8	29	Male	5.5
9	45	Male	12

Inclusion Criteria

Participants were selected to ensure they had relevant experience in the interior designing field. The criteria for participation were:

1. Must passed Bachelors or Diploma in Interior Designing
2. Working as an Interior designer for more than 5 years on a stable basis

Data Collection Method

Data collection was carried out from April to June 2022. Face to face semi-structured interview was conducted to 9 Interior designers with more than 5 years of experience. All questionnaire responses were recorded for this purpose only after getting proper consent from the concerned person. 3 of the interviews were conducted at their workplace, whereas 6 interviews were

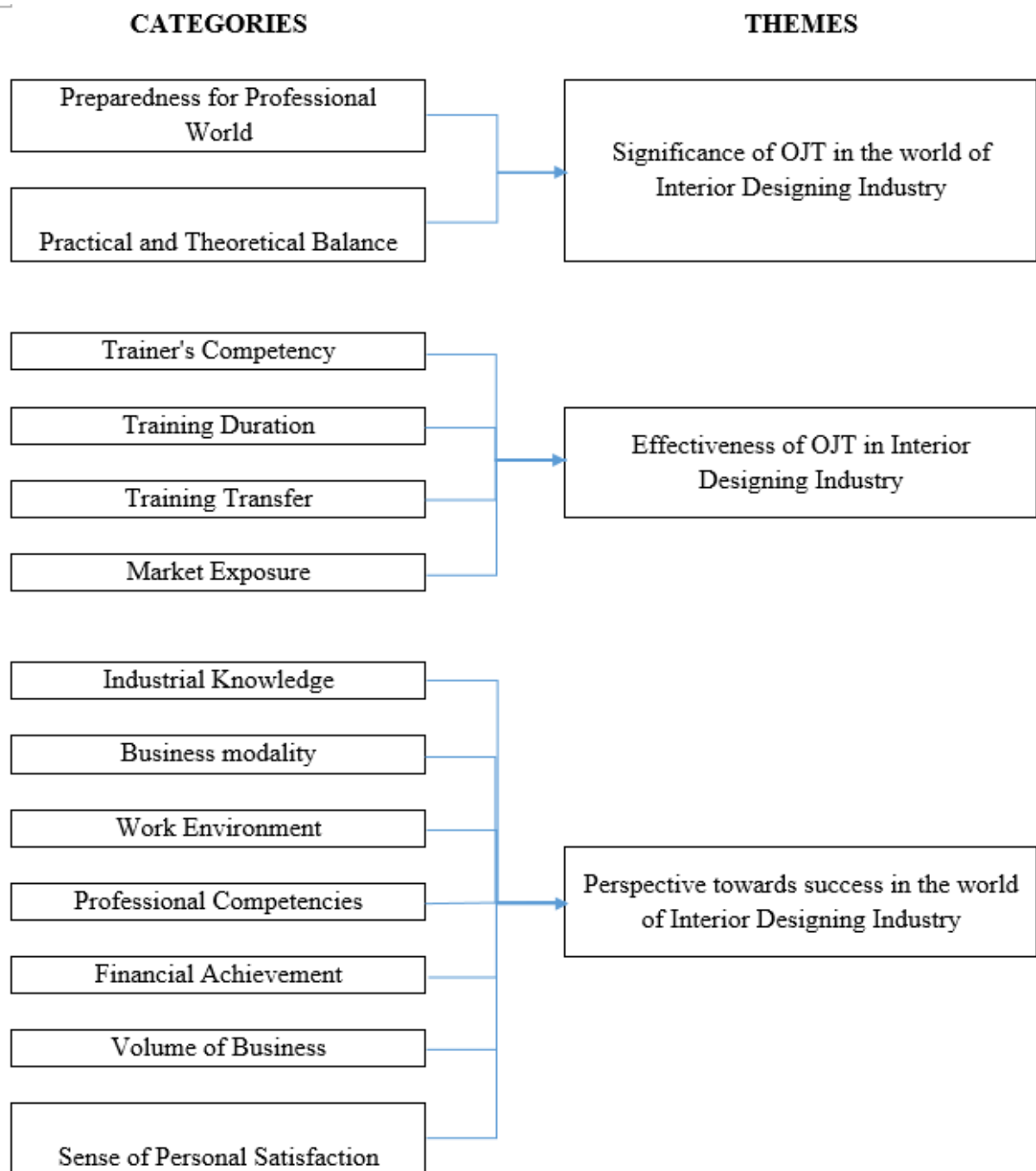
conducted in a café. After 9 interviews, data was saturated, so no further interviews were taken. Researcher has maintained ethical sensitiveness so that it will be kept confidential and anonymous. Researcher informed the respondents about the purpose, methods, and intended possible uses of this research. Researcher tried her best to avoid any ethical issues at the time of data collection.

Data Analysis

After collecting the data needed, researcher transcribed the collected data and translated them in English language as far as possible. Then, generated codes using in-vivo method and grouped them into 13 categories in accordance with the similar attributes. Through these attributes 3 themes have been generated which can be analyzed for this study. These themes were interpreted based upon the literature review and research findings generated through face to face interview.

Figure 1

Linkage of on the job training and perceived professional success of Interior Designers



Trustworthiness of Qualitative data

Four primary criteria are articulated to ensure the trustworthiness of the data. Credibility has been assured through multiple perspectives throughout the data collection. Information drawn from the participants' original data and is a correct interpretation of the participants' original views. Transferability has been demonstrated through clear assumptions and contextual inferences of the research setting and participants. Dependability has been demonstrated through assurances that the findings were established despite any changes within the research setting or participants during data collection. Confirmability has been assured as data are checked and rechecked throughout data collection and analysis to ensure results would likely be repeatable by others. It documented clear coding schema that identifies the codes and patterns identified in analyses.

Ethical considerations

The researcher has maintained ethical sensitiveness. Sensitive data were kept confidential and anonymous. I took consent from the participants during data collection and ensured integrity and quality of research. Participants were advised that they were free to refuse to participate or withdraw at any time. Researcher has informed about the purpose, methods, and intended possible uses of the research, with the respondents. All the recordings were discarded and all information remain anonymous.

Findings

Significance of OJT in the world of Interior Designing Industry

The first component to determine the linkage of OJT and perceived professional success is significance of OJT in the world of Interior Designing Industry. It helps in acquiring new skills and competencies needed for a job in a real working environment. It prepares the freshly graduate interior designers for the professional world and helps to balance theoretical and practical knowledge. It assists trainees in developing professionalism and interpersonal skills necessary for success in the industry.

Kumar (2014) stated traditional training approach puts a wall between what employees learn and what they do. OJT can break this wall. When theory and practice come together, the goals of an organization and the goal of an individual become the same. Participant 9 stated, *“Interior designing is a technical field so there is a huge difference in theory and practice, so OJT helped me to gain comprehensive knowledge about what Interior designers do every day. Without OJT one is incapable of handling the projects”*. Similarly, Participant 1 said *“Roughly about 20% of theoretical knowledge is applied in practice but OJT helped to balance out the rest 80%.”* Other participants also added site visits and supervisor’s guidance helped them improve overall preparatory, implementation and closing phase of any project. With OJT, employees learn precisely what their job entails and ask any questions that arise while shadowing coworkers (Saeneb *et al.*, 2014).

Participants commonly found that OJT helped them in client dealing, persuasion, material selection, design and concept visualization, software use, suppliers identification, relationship building, gained enough confidence to start their own business etc. Basically, it has prepared them to for the exposure in real work environment. However, a few participants contradicted that they did not learn anything during their internship and it is of no use. Participant 6 said, he chose the wrong firm for the internship. So, he could not learn anything there. He regrets for not taking his internship seriously and later needed to struggle a bit more than his friends.

Though there are different types of learners, visual, auditory, or kinesthetic, OJT has incredible significance in today’s interior designing industry.

Effectiveness of OJT in the world of Interior Designing Industry

The second part of linkage in OJT and perceived professional success is effectiveness of OJT in the world of interior designing industry. It includes trainer’s competency, training duration, training transfer and market exposure. Participants shared their experiences about the effectiveness of OJT and its linkage on their perceived success. Positive transfer of training occurs when trainees use what they learned in training back on the job (Baldwin & Ford, 1988). Participant 4 said, *“Supervisor’s willingness to teach and trainee’s capacity to receive determines the result of the project. Sometimes, my supervisor does not want to teach or share because he was insecure that I will gain more exposure than him.”* On contrary participants commonly said, internship for the academic degree is not enough to get established in the market. Participant 1 shared her experience and said to collect at least 2 years of experience it will be helpful in documentation and material selection in order to start your own in the future. Participant 6 shared he sent to the site and allowed to make customized designs for the customers during OJT. This instilled confidence in him and reached today’s height. Participant

3 said, “*There is more co-learning as it is a creative field. Experience and seniority doesn't determine the acceptance of designs.*”

Lovely (2004) viewed and emphasized that for the new approach to training, “apprentice and intern programs allow prospects to get into trenches and discover firsthand what it means to be a learning leader. In this industry as well from the OJT, they discover firsthand experience and get huge exposure and are able to crack major projects in the future. But, only the creative, innovative and out of box thinker got more exposure. Hence, it is found that effectiveness of the OJT is linked with their perceived success in this industry.

Perception towards success in the world of Interior Designing Industry

Participants described a range of experiences in relation to their perception towards success in the world of interior designing industry. Some shared the perception of success in Nepalese society. There is social measurement of success and professional measurement of success. Participant 4 shared, interior designers are perceived differently on the basis of their economic standard and family background. Interior designers from elite family and those who have international degrees tends to get big projects irrespective of their competence. This could be linked to professional exposure and public relation. However, all participants do not term themselves successful just because they are earning well. Most of the participants valued appreciation of the work by clients and other seniors rather than economic benefits. Further, they termed other requirements like industrial knowledge, business modality, work environment, professional competencies, financial achievement, volume of business and sense of personal satisfaction for their perceived professional success.

No one could sustain in any industry without industrial knowledge. So, participants shared about the regular research of this market and need to be updated as per market trend. They should know the generation and act accordingly. People management skills, client dealing, management skills, proper communication are in terms of professional competencies. Participant 6 said, “Right PR personnel in the team is necessary to increase the market reach. Most Interior designers fail to understand it and try to become one-man army.” Participant 4 stated, “Personally, I felt the need of people management skills as we need to deal from blue collar workers to high end clients.” In Interior designing industry, salaried staffs are not satisfied due to low pay so eventually they will either freelance or start their own business. In case of freelancer, they do not have any specific location and office name so big projects do not trust them. Similarly, partnership could be burdensome due to conflict in interest of partners. But they are able to generate creative and innovative ideas. There are scenarios where both business modalities also impact the success. No. of employees does not determine the success as Participant 1 said “Rather than no of staff in an organization, capable staff matters for the success of an organization.” In contrary to that Participant 9 said, no. of employees in an organization is directly linked to the projects they have in their hand. So, higher the number, more successful they are.

Participants commonly found, when there is volume of work, it means more projects, more projects earn more income and exposure. So, volume of work is directly linked to the perceived success. Whereas, some participants term clients' satisfaction and personal satisfaction as success. Participant 1 shared, “*Due to difference in my interest between classical designs and modern designs, I need to leave my job. Profession of passion and interest will automatically enhance my job satisfaction.*”

Linkage of on-the-job training and perceived professional success in the Interior Designing Industry

It has been typically predicted “objective” career success like pay level, rate of promotion, etc. Now, studies about “subjective” career success like people's reactions to their own careers, etc. has been started that is most often indicated by their job satisfaction. Within each level of wealth and occupational status, some people view their careers as much more (or less)

successful than do others (Heslin, 2005). This variation seems to reflect different perspectives on what amounts to a “successful” career. From the interview, participants shared the degree of success they realize is highly consequential. For Interior designers, time, energy, and talents are the external markers of success. Those who can delegate their work adequately, they are subject to both objective and subjective success. In Nepali context, Interior designers work as a one-man army which is the one main reason for their professional failure. During their traineeship and internship, fresh graduates could acquire these skills which will ultimately enhance their perceived professional success. Similarly, Interior designers reflects their professional success reactions to both previous and anticipated career-related attainments over the period of time than one’s immediate job satisfaction. These may include the sense of identity, meaning, and work life balance afforded by this interior designing industry. According to the interview with the participants, subjective professional success depends on satisfaction with areas such as one’s income, advancement, and skill development. However, Interior designers with more year of experience and those who do not need to struggle for the projects, these interior designers tend to value things such as work-life balance and much more than their satisfaction with either their job or the objective outcomes of prestige, power, money, and advancement.

Discussion

This study provided insights into understanding significance of OJT, relationship of effectiveness of OJT and perceived professional success and perception of success of interior designers. The research study has identified three major themes – significance of OJT in the world of Interior designing industry, effectiveness of OJT in the world of interior designing industry and perspective towards success in the world of interior designing industry.

Firstly, this study explores that there is significance of OJT in the world of Interior designing industry as it prepares fresh graduates for the professional world and helps to maintain the balance between theoretical and practical knowledge. During OJT, fresh graduates observe all aspects of the work they will encounter. During this, they learn workplace expectations, equipment operation, and other skills they need (Barron *et al.*, 1997). It assists trainees in developing professionalism, technical and interpersonal skills necessary in the industry. It helps to connect fresh graduates in the working procedure 80% of the time beside their theoretical knowledge. Based on empirical research on experiential learning, Makota (2014) proposed the ‘70/20/10 model’, which states that 70 per cent of learning occurs through on-the-job experience, 20 per cent through coaching and feedback from others, and 10 per cent through formal learning and reading. The model indicates the importance of training and learning in the workplace in developing human resources in firms. It helps in client dealing, material selection, industrial knowledge, design visualization, suppliers’ identification, maintaining public relations, building confidence, work exposure. So, it has incredibly significant in today’s interior designing industry.

Secondly, supervisor’s perception towards their trainees also impact the performance of interior designers in the workplace. Not only supervisor, trainee’s capability to learn also determines the effectiveness of OJT which is directly linked to perceived success of IDs. In this industry, creativity and innovative ideas give market exposure rather than seniority. If learners are able to transfer their knowledge and skills learned in OJT back to their jobs or to their own enterprise, its effectiveness is reflected. Transfer learning must depict into performance which in turn leads to professional success.

Thirdly, for the perspective of success in the world of ID industry, sense of personal satisfaction is the major indicator. Appreciation from the clients and other influencing people enhances satisfaction rather than financial achievements. Profession of passion and interest increases the job satisfaction and is directly linked with perceived professional success. Interior designers must be up to date about the trends in the market. This will enhance customer’s satisfaction which ultimately increases personal satisfaction and is directly linked to perceived

professional success. Financial achievement and volume of the business are the matter of concern in the initial stage. Later on these factors do not matter much in this industry. Teamwork and work environment have major role in the success of IDs because due to conflict in the partnership and choosing wrong business modality has many IDs. Interior designers reflect their professional success reactions to both previous and anticipated career-related attainments over the period of time than one's immediate job satisfaction (Heslin, 2005). These include the sense of identity, meaning, and work life balance afforded by this interior designing industry.

Lastly, recent technological and organizational changes have dramatically altered the composition and the meaning of professional success (Heslin, 2005). Interior designers need to realize their capacity to reinvent by engaging in proactive socialization, cultivating the belief that they can change, recognizing, understanding, and nurturing the available network, and continually seeking to find the balance between work and the other important facets of life. Professional success depends on nature of Interior designers. They should selectively draw upon the collection of perspectives offered on career success that most resonate with them at the particular stage of their career.

Conclusions and Recommendations for the further research

This study explores that there is significance of OJT in the world of Interior designing industry as it prepares fresh graduates for the professional world and helps to maintain the balance between theoretical and practical knowledge. There is direct linkage in perceived success of interior designers. Effectiveness of OJT in the world of Interior designing is also linked with perceived professional success. This is measured by trainer's competency, training duration, training transfer, and market exposure. Perspective towards success in the world of Interior designing industry is a subject factor. They reflect their professional success in relation to previous and anticipated career-related attainments over the period of time. These may include the sense of identity, meaning, and work life balance afforded by interior designing industry. Subjective professional success depends on satisfaction with areas such as one's income, advancement, and skill development. However, Interior designers with more year of experience and those who do not need to struggle for the projects, these interior designers tend to value things such as work-life balance and much more than their satisfaction with either their job or the objective outcomes of prestige, power, money, and advancement. This research also finds the linkage of OJT with the perceived professional success of Interior designers. IDs who got proper OJT termed themselves confident and successful while others regret not knowing the importance earlier.

The finding of the research suggests freshly graduate Interior designers and ID educational institutes to take the internship in the course seriously. Stating its significance, internship duration could be increased. OJT is one of the crucial factor for the success in the professional life. There is the need to conduct further research to improve the richness of the research findings. For this, the researcher will be incorporating data from diverse academic qualifications like interior architects etc. Despite its limitations, the researcher believes the findings of the research study will help in Interior designing industry to know the overall scenario of this industry in terms of OJT and perceived professional success. As the constellation of factors that culminate in "career success" tend to evolve over the course of a career, a different set of ideas for increasing your experience of career success may seem more useful and meaningful at future points in the unfolding of your career.

Limitations of the Study

The research study was conducted using face to face interview as the only method to collect sample data. Other data collection techniques could also be used to improve the richness of the research findings. Due to time constraint, the research was conducted in a limited sample population among the interior designers with more than 5 years of working experience.

However, this has not affected the result of the study and can be used to conduct similar study again. The themes and findings generated are on the basis of the literature review and the experiences that the researcher generated during the research study. Potential biasness might occur in the preparation, data collection, analysis and results generation.

Conflict of Interest

All opinions presented in this research belong to the researcher alone, and not any institution. The researcher declares that the researcher has no conflicting interest.

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School Leaders' Views and Challenges Associated with Inclusion in Government Schools in Nepal

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Abstract

School leaders are persons in charge of a school's daily operations as well as its general well-being. The purpose of this study is to investigate the views and challenges of school leaders (headteachers in the context of Nepal) towards inclusion practices in their respective schools. A mixed approach was used to carry out data collection. The findings suggest that there is lack of support staff, resources and infrastructure, limited knowledge of inclusive education policies and teaching methods, which has created challenges for headteachers to incorporate activities that promote equity and inclusion. Furthermore, even though the headteachers believe that ensuring equity and inclusion in school falls under their responsibility, they have limited decision-making power. Overall, this study presents preliminary findings that will be used as a basis for developing an open course to improve school leaders' abilities through a different approach that views them as problem-solvers.

Keywords: Equity; Inclusion; Headteachers; Government School

Introduction

School leaders are persons that are in charge of operating a school and the overall functioning and welfare of the school (Coleman & Dickerson, 2017). In Nepal, they are headteachers or principals. An article on the principals' role as a leader (Wallace Foundation, 2013) as stated in (Danai, 2021) states that headteacher's role surrounds numerous responsibilities such as promoting teachers' leadership, improvement of school, management of data as well as producing a hospitable environment among others.

According to Nepal's Education Regulation, Rule 93, "there shall be a headteacher in each school to function as an academic and administrative chief of the school" (Education Act 2028, 1971). Similarly, the seventh and eighth amendment of Education Act and its succeeding regulation (Education Act 2028, 1971) states 31 duties/authorities that headteachers are entitled to which range from setting of monthly to yearly plans and goals, building school culture and environment to assigning responsibilities to teachers as well as selection and referral for various trainings.

In the past, inclusive education has usually only been attentive and limited to providing special education for children so that they are able to adapt to and be included in regular classrooms and properly learn and grow in the same environment (Childhood Education International, 2021).. However, this understanding has stretched to a wider and more comprehensive definition. In recent years, according to Bourke & Dillon (2018), as cited in CEI (2021), the definition on inclusive education includes not only children with disabilities (CWDs), but addresses to "all forms of exclusion and marginalization, disparities and inequalities in access, participation and learning outcomes" based on "race, class, ethnicity, geographic location, residential status, religion, gender, and/or ability". Other literatures also provide insight that there are a range of understandings when it comes to inclusive education

(Ainscow, Booth, & Dyson, 2006) (Armstrong, Armstrong, & Spandagou, 2010). Inclusive education in a narrow sense means the advancement of certain groups of students, while in a broader sense refers to the response of schools itself in including diverse or different groups of students as well as members of the school community (Ainscow, Booth, Dyson, & et.al., 2006).

According to a study conducted in Dhading, the role of headteachers is a major factor on “how teachers can address all the issues to ensure quality in education and increase the achievement of students” (Danai, 2021). Another similar research conducted in the United States explained that headteachers’ perceptions, interactions, and their vision are inseparable in creating an inclusive school environment (Dyal, Flynt, & Bennett-Walker, 1996). Since the headteachers are key constituents in guaranteeing an inclusive school environment and minimal number of studies have conducted on what their views are, this research was conducted with the objective of assessing their perceptions as well as challenges associated inclusion in their schools.

Methods

A mixed approach was used to collect data. 118 headteachers were included in the final survey analysis (100% response rate) and interview was conducted with 10 headteachers. Convenient sampling technique was used. The respondents were kept anonymous to ensure the confidentiality and reliability of data received. IBM SPSS Version 26 was used for greater part of the analysis. Descriptive analysis was conducted to compare proportions of the participant headteachers’ responses. Thematic analysis (Kiger & Varpio, 2020) was used to analyze and interpret the qualitative data from the interviews.

Result and Discussions

The socio-demographic part of the survey such as age group, sex, experience, education, geographical location, type of school and term as a headteacher are shown in *Table 1*.

Table 1 Socio-demographic information of the respondents

Socio-demographic variables (N=118)		Frequency (n)	Percent (%)
Age group	Under 30 years	4	3.4
	31 - 40 years	42	35.6
	41 - 50 years	44	37.3
	Above 50 years	28	23.7
Sex	Female	24	20.3
	Male	93	78.8
	Prefer not to say	1	0.9
Years as a headteacher	Less than 5 years	70	59.3
	6-10 years	23	19.5
	11-15 years	11	9.3
	16-20 years	7	5.9
	Over 20 years	7	5.9
Highest educational qualification	SLC	5	4.2
	PCL Certificate/ +2	12	10.2
	Diploma	1	0.9
	Undergraduate	24	20.3
	Post graduate *	76	64.4
*M.Phil. and Master’s degree compiled			
Geographical location	Central or Provincial capital city	2	1.7
	Other city	3	2.5
	Rural	89	75.4

	Urban	24	20.3
Type of school	Basic Primary (up to grade 3)	5	4.2
	Basic Primary (up to grade 5)	15	12.7
	Basic Lower Secondary (up to grade 8)	20	17.0
	Basic Lower Secondary (up to grade 10)	51	43.2
	Secondary (up to grade 12)	27	22.9
Been headteacher before	Yes	32	27.1
	No	86	72.9

Table 2 shows that 78% of the respondent headteachers agree that inclusive education is about ensuring that children, whatever their background, are able to participate fully in all aspects of school life. Nearly all headteachers believed that CWDs should be included and taught in the same school and classroom, however some believe there should be separate schools for some children, for example street children. One of the interviewed headteachers stated that “talking about including them (street children) in our school, it is difficult for us to teach all the groups of students in the same class since those children are brought up in a different way, maybe we can say that they are less mannered so, in my opinion, different schools should be established for those children.”

Table 2 Headteachers' views regarding inclusive education

Statement	n	%
Inclusive education means having CWDs and children without disabilities learning together in the same classrooms, in the same schools.	22	18.6
Inclusive education is about providing access to schools (mainstream or special) for children with disabilities only.	4	3.4
Inclusive education is about ensuring that children, whatever their background and situation, are able to participate fully in all aspects of school life.	92	78.0

The perceived importance regarding issues related to inclusion in school is presented in Table 3. Majority of the headteachers responded that for all issues mentioned, their perception was that the issues were important. However, 32.2% of the headteachers responded that having no inclusion issue in their school is neutral (neither important nor less important) and 21.2% responded that it is less important that there are no inclusion issues in their school.

Table 3 Perceived importance regarding issues related to inclusion in school

Issues	Extent of perceived importance of issue					
	Important		Neutral		Less important	
	n	%	n	%	n	%
Changing teaching methods so that all children can participate in learning	114	96.6	4	3.4	0	0.00
Improving the attendance of specific groups of children	106	89.8	8	6.8	4	3.4
Welcoming all parents and community members to your school governing bodies (addressing language, caste and other barrier)	104	88.1	13	11.0	1	0.9

No inclusion issues in my school	55	46.6	38	32.2	25	21.2
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The findings from a similar study suggest that teachers, in general, have a positive view towards inclusive education and are also zealous to implement inclusive education in their schools given that the required resources, facilities and policies are in place (Sharma, 2020). Similar findings can be seen in our study as well where majority of the headteachers showed positive views towards inclusive education (Table 2) and also noted major barriers to inclusive education in their schools were lack of resources, lack of required infrastructure, as well as absence of support staff (as shown in Table 4). Lack of knowledge on policies related to inclusive education was also seen as an important barrier. According to a study by Human Rights Watch (2011, as cited in Sharma, 2020), the attitude of people is not a barrier towards implementation of inclusive education but the poor implementation of existing policies in the ground level is an important barrier to inclusion in Nepal.

Another important issue on inclusion stated by most headteachers was the decreasing rate of attendance in female students. A headteacher mentioned “there is still the practice of sending the boy child of a family to boarding school and the girl child to government school”. However, the attendance in female students is seen decreasing as they age. Some headteachers mentioned that this may be due to “early marriage” since “most female students get married after grade 8”. Some have mentioned “household work pressure” and “mindset of parents that a girl child does not need proper education” as the reason for the decreasing attendance. A study also presented similar results with negative association between age and school attendance of female students (Bhattarai, Bernasek, & Pena, 2020). This is also consistent with another finding that marriage (or its preference by family members) and physical development i.e., the onset of menstruation is among the factors that affect school attendance.

Table 4 Perceived importance of barriers to inclusive education

Barriers to inclusive education	Perceived importance of barriers					
	Important		Neutral		Less Important	
	n	%	n	%	n	%
Lack of classroom resources	90	76.3	16	13.6	12	10.2
Teachers lack sensitivity and responsiveness to children’s learning needs	73	61.9	34	28.8	11	9.3
Teachers do not believe that all children in their class can learn	63	53.4	30	25.4	25	21.2
Negative attitudes of parents/community	71	60.2	31	26.3	16	13.6
Limited knowledge of inclusive teaching methods	83	70.3	23	19.5	12	10.2
Lack of knowledge on policies	75	63.6	30	25.4	13	11.0
Absence of support staff	91	77.1	17	14.4	10	8.5
Lack of required Infrastructures	88	74.6	22	18.6	8	6.8

Table 5 represents the formal responsibility of ensuring inclusion in school. 85.6% of the headteachers responded that it is their responsibility to ensure inclusion. However, the headteachers revealed that a major challenge they have faced as a school leader is the lack of decision-making power. A headteacher mentioned that “not all headteachers have the authority of making all the decisions on their own, they need permission from local government, SMC, and PTA”. Another headteacher further stated that “It (lack of decision-making power) is due to political interference. Politics or conflict takes place for the formation of the management committee of the school. Even teachers are involved in various political parties”. Various forms of politics take place in schools in Nepal and are also a cause of school closures and conflicts between teachers and management (Dangol & et al., 2013).

Table 5 Formal responsibility of ensuring inclusion (multiple responses)

Formal responsibility	n	%
Headteacher	101	85.6
SMC head	45	38.1
Teachers	49	41.5
Don't know	5	4.2
Local government	29	24.6
No one	1	0.9

Table 6 Inclusion within SMC/PTA

Inclusion within SMC/PTA	Yes		No	
	n	%	n	%
Female members in leadership	79	66.9	39	33.1
Parents of disadvantaged students members of PTA	37	31.4	81	68.6

Table 6 illustrates that 66.9% of the headteachers responded that there were female members in leadership in SMC/PTA and 33.1% said that there were no female members in leadership. A study exclaims that much of division of the household roles and responsibilities of male and female teachers is still very much socially defined where males have more responsibilities outside the house, where as females have more responsibilities inside the house (UNESCO, 2006). Household work is also mentioned by headteachers to be one of the main reasons why there are only a few numbers of female headteachers in leadership.

Conclusion

The headteachers, in general, have positive views regarding inclusion. Most of them agree in ensuring that children of all backgrounds and situations should be able to participate wholly in all aspects of their school life without any discrimination or bias. Most of the headteachers believe that it falls under their responsibility to ensure inclusion and have tried to incorporate various inclusion activities to promote inclusion and equity in schools. However, they face many barriers to inclusive education such as lack of required infrastructure and resources, absence of support staff, lack of knowledge on policies, etc. Moreover, the decision-making power of headteachers is very limited and they require permission from SMC to conduct any specific activities in the schools that they are in charge of. The interference due to the political involvement of the members of SMC as well as PTA is also one of the challenges to the headteacher.

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Pathways of Transformative Learning in International Citizen Service Volunteers

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Abstract

Volunteering programs have made promises of transformative learning to entice volunteers. Study on transformative learning of volunteers is relatively a new domain; however, they are either orientated to show the result of transformative learning or are theoretically constrained; using only Mezirow's theory which argues rational reasoning. I have applied theories of Mezirow, Taylor, and Dirkx to demonstrate how volunteers use different epistemic pathways to live life truer to themselves. I interviewed eight participants and found that transformative learning occurs in volunteers through rational, non-rational, and extra-rational processes. Volunteers often rely on the feelings and emotions that incidents present. Volunteers evade their inherited presuppositions and path of life by reflecting on the why question, simple feeling examination of whether the new learning felt right or not, or by assessing the deep resonant emotions that crucial incidents engendered in them. This led to transformation in how volunteers see other people, cultures, and perspectives. Emotion-laden experiences led volunteers to seek career choices that they felt were true to them. Transformative learning defied the authoritative beliefs conscripted in volunteers.

Introduction

When I was a volunteer for the UK government's International Citizen Service (ICS) volunteering programme, I experienced a profound shift in me. I had wanted my career in agriculture. But my perspective changed and I took the path of development work where I guided numerous volunteers that shared experiences similar to mine.

Volunteering programmes have made personal transformation their primary scheme. In contemporary society, ruled by the forces of modernisation and neoliberalism, volunteering has become more about ensuring volunteers' self-advancement (Griffiths, 2015), personal development, and making them active global citizens (Griffiths, 2014). Personal development and transformation have been volunteering organisations' key selling points to attract volunteers (International Voluntary Service, n.d.; Volunteer Initiative Nepal, 2013; Volunteer Society Nepal, 2022). But they come short of detailing how these transformations are achieved.

Research on volunteers and Transformative Learning (TL) mostly focuses on a singular agenda and theoretical lens. Studies either just focus on the triggering incident that ushers in transformation (Müller et al., 2020) or look at intercultural aptness (Bailey & Russell, 2010; Coghlan & Weiler, 2015; Hullender et al., 2015; Müller et al., 2020; Walker & Ngara Manyamba, 2020). Most importantly, the studies' theoretical lens is limited to Mezirow (1978)'s whose basis of TL is rational reasoning. The studies (Griffiths, 2014, 2015) that un-dermine affective realms of volunteers do not integrate the lens of TL. The purpose of my research is to explore the different epistemic pathways that volunteers embrace that helps to bring TL.

Literature Review

Studies mainly focus on critical reflection as the process of TL. Müller et al. (2020) stated that when volunteers critically reflect on their world view, TL is possible and paramount to every step of TL (Kedkaew & Ounvichit, 2021). Magrizos et al. (2021) argued that reflection enhances TL outcomes. Coghlan and Weiler (2015) delineated three self-reflective processes: content, process, premise and relational, that are crucial for TL.

However, Prince (2017) contended that critical reflection can occur in conjunction emotive experience. Burns et al. (2015) attested to the emotions that volunteers encounter during volunteering open ground for changes. Darley (2018) informed that emotive volunteering experiences help volunteers to construct the meaning of their experiences. Griffiths (2014, 2015) extensively elaborated on the vital role of affective experiences of volunteers that are metamorphic. However, the study on volunteers' emotion do not apply the lens of transformative learning.

Theoretical Review

Mezirow (1998) defined TL as shedding of uncritically acquired world views to make them open, inclusive, and understanding by reflecting critically on the inherited assumptions. Mezirow's assertion is criticised for not encompassing role of emotions and its over reliance on rationality (Boyd & Myers, 1988; Dirkx, 2001b; Taylor, 1994a, 1994b). In light of this, Taylor (1994b) put forward a non-rational cognitive orientation where, when learners encounter new worldviews, they act on it to transform their assumptions on how they feel at the moment. Dirkx (2001a) contended that role of emotion and emotion laden experience is more crucial and helps the learns to understand their true self by conversing with the soul.

Method

I used Yin (2018)'s criteria to define the case, set its boundary, and the unit of analysis. Case in my research are the former ICS volunteers and the unit of analysis is the phenomenon of transformative learning. Thus, my unit of analysis is Raleigh International's ICS volunteers that have undergone TL.

I carried out a purposive participant selection. A total of eight participants were interviewed in unstructured process through virtual medium. The participants' gender, nationality (Nepali and UK), and volunteer role (team leader and volunteer) were equal. I also carried document analysis of 23 published documents such as annual reports and blogs from ICS website (Merriam, 1998).

Results and Discussion

Lhotse, Cheviot, and Annapurna had uncritical assumption regarding leadership. As Lhotse put it, he had a "rose-tinted glass view" of what leading a team would be like. He asked himself "why am I like this? Why am I going through such struggles...?". Reframing, according to Mezirow (1998), occurs by reflection. The why question or the premise reflection is the most crucial form of reflection (Taylor, 2017). Cheviot asked herself what a leader should be like and heavily engaged herself in analysing her team leader's leadership skills. She recounted, "I realised a leader should be like that, they have to make a place in people's heart. They have to be the inspiration. That is a leader...I learnt that a leader means taking your team forward." Their view of leadership came from dominating institutions of society. Media circulation in mass culture and organisational materials had given him a false view of leadership. While Cheviot concept came from school where class monitors were assigned. "Monitors were the don of class" she added. Despite acquiring Lhotse and Cheviot's revision of values occurred via a rational process.

Nevertheless, reframing did not just occur through rational reasoning. Makalu's reframing occurred through a non-rational cognitive orientation (Taylor, 1994a) . He recounted how change in his view of food occurred:

It felt more humane and also the sharing of food in like a very much a community style, uh..., which is more than just about money...Um, just the, the kind of spiritual nature of food, you know, thankfulness... feeling as though it's more of a blessing...

Community culture of food is contrasting to the UK volunteers as Curry (2017) states, "In Nepal people share everything, especially food, which is a lovely quality" (para. 9), indicating that sharing of food in communal manner every day is not so prevalent in UK's culture. Contrary to the rational or ego-based phenomenon, Makalu's reframing occurred by

considerate action and inundating himself in a new culture. Being a part of it rather than just a passive observer.

Dartmoor's transformation was through an amalgamation of both rational and non-rational orientations. Taylor (1994a) contends refraining can occur by both reflective and non-reflective orientation. After he encountered and spent some time with the UK volunteers, the stereotype he had in him about foreigners being dismissive towards Nepali was challenged. The realisation dawned on him while he was spending time with his new team. He informed:

I came to know after 3-4 days of reaching community. In the 1st week we had team building activities, knowing each other I came to know what approach are they bringing with them. They came to learn things, to stay together and work in a team.

He regretted his stereotypical assumption that the UK volunteers would "treat Nepali in a certain way". Hinting they would look down. "I felt like my thinking was narrow...and [I felt] regretful..." he added. He applied rational reasoning while he was building up skills for a more integrative perspective where he questioned how he had gained the assumptions and what he could do to circumvent those.

Annapurna's and Nilgiri's reframing occurred also by how they felt at the moment of encountering a disorienting dilemma. Parts of training and team sessions struck a chord in Annapurna and Nilgiri. Annapurna preferred how ICS taught her:

I really like the way ICS teaches, cuz they teach you practical, visually you get into teams, you mix it up, you like swap about, and you're doing like activities. Like just watching them [mangers and other team leaders], they all had completely different styles. So, like learning by doing, by observing.

She also attested that receiving feedback from her counterpart team leaders helped her to learn. "I thought that was really important actually that we had our [counterparts] little, um, daily debriefs" she said emotionally. Nilgiri's reframing was ensued when she had no option rather than to listen to other people and she found that instance to be very powerful to her and forced her to reassess how she saw other people. Nilgiri described the experience as:

...a very intense and very profound experience...um, but it kind of just made me realize that, like, you don't really understand what people have been through. Um, and I think kind of doing an exercise, like that kind of made everyone very aware of why we were all the way we were.

Brecon's and Ochil's experience defied the norms of transformation laid out by Mezirow or Taylor and relies on the emotive experiences expressed during moments of altruism and powerful images (Kovan & Dirkx, 2003). Brecon and Ochil's career aspirations was shaped by influence of family and friends. "I had in my mind that I will study CA (Chartered Accountant)" since all of his friends' idea was to be business.

Ochil contrasted the incident of gazing starts from her placement community to her previous work environment which was narrow. "At that job I used to work like reach office at 10 bend your head down" whereas in ICS her team used to gather for "bonfires and...UK volunteers used to teach us to sing carols. And there we used to sit and star gaze. From our community we could see milky way soooo so nicely...we used to star gaze till 10-1". A very vivid difference in the working environment welled up different images in her. Images are the deep-seated concerns that are anchored within the self and only show up when deep emotions are jerked up by crucial events (Dirkx, 2006). Brecon was overwhelmed when beneficiary of the project thanked him with joined hand and the incident "made me very happy. I felt that getting such kind of happiness is difficult." The intense happiness and gratitude (Judge, 2015) he felt were second compared to none. A revelation that came straight from his soul. Dirkx (2018) states that emotions reveal who we truly are and strong emotions signal that something deep within us has shifted. After these powerful experience, Brecon and Ochil realised they wanted a career in development and changed their career trajectory.

Volunteers had acquired uncritical assumptions through medium of family, friends, education, mass media, general stereotypes. These presuppositions were for the volunteers while carrying out their duties. Duelling with incidences, volunteers not only used their rational reasoning which generally is supposed to be the epitome of good decision making, but mainly relied on their feelings and emotions to take a discursive move from the assertive dogmas that inhibited them.

Conclusion

The understanding that transformative learning only occurs through a rational judgement of assumptions is a narrow concept. It discounts other epistemological pathways. Volunteers utilise all of the judgement tool they have at their disposal. Not only do volunteers rely on their rational reasoning ability but conscience and extra-rational are used more frequently. Guided by how they felt at the moment, volunteers transcended their narrowly tailored dominant ideologies to a more open and truer to themselves pathway. This finding is important to volunteering organisations as by making volunteers aware of how they can understand their experience in during volunteering, transformative learning potential of the programme can be improved.

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Perception and Practice of Critical Reflection among Medical Professionals: A Collaborative Autoethnography

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Abstract

Critical reflective practice is considered a vital component in any practitioner's professional development however, many medical professionals lack a habit of practicing it. Dilemmas at workplace experienced by novice medical personnel's while performing professional role based upon personal and professional knowledge and experience is largely influenced by the assumptions and beliefs of the organizations which results in an imbalance in decision making leading to frustration and anxiety among the medical professionals. Hence this study takes the initiative to understand the perception and the practices of medical professionals on critical reflection and the barriers experienced by them in practicing it, I will be focusing on situations on difficult decision- making that affected their professional growth. Experiences of the medical professionals showed that frustration and dissatisfaction at work place due to organizational influence of power over novice professionals' belief and values leading to impairment in professional development. Reflective practices have been identified by health professionals as a method to understand the problems faced by them while dealing with situations of dilemma in performing the role of a clinician as well as during practical sessions of teaching as a medical educator. While critical reflective practices occupying an essential position in critical decision making which allows medical professional to make decision based upon self assumptions, values and experiences and be less influenced by the organizational beliefs needs to be exercised in order to reform practices and promote professional growth and continue their passion for work.

Keywords: Critical reflection, Medical professionals, Organization beliefs, Professional growth.

Introduction

A habit of looking back on one's journey/experiences is something most of us rarely give importance to. Reflection, a terminology often referred to a state of thinking about one's perception of an event, state or object (Mezirow, 1998). It also means to allow one's thought to rove over something and or generate ideas to work differently. Reflection may however be a simple pondering over one's doing, which is different from "Critical Reflection". Mezirow, (1998) elaborated critical reflection to be, "Either implicit, as when we mindlessly choose between good and evil because of our assimilated values, or explicit, as when we bring the process of choice into awareness to examine and assess the reason for making a choice" (p.40). Health professionals are a part of this rapidly globalizing world, who need to be updated not just with medical advances as well as adapt to the changing systems (Mann et al., 2009). They on the other hand, are mostly guided by certain preset assumption which influences their thoughts and actions, these assumptions described by (Brookfield, 2017) as paradigmatic, prescriptive and causal are often seen to be holding strong beliefs amongst them. Nevertheless, the ability to reflect and question the dominant ideologies and hegemonic beliefs occupies a very small untouched area within the mind of a medical professional.

Medical professionals these days need to balance themselves in a complex and competitive world which is largely influenced by the dominant ideologies, cultural hegemonic beliefs of the society, organizational institutions and people existing within the system. This pushes the novice medical professionals to a state of dilemma, when they come across any contextual problem during the process of providing care to the patients or educating medical students. Hence it has become essential to understand medical professionals' perception of critical reflection and their practice. During this process professionals are often unable to perform according to their principles and values (Gardener, 2009). This often leads the practitioner to a path of dissatisfaction which affects their performance, their passion for work and anxiety over their future growth (Gardener, 2009). Medical professionals around the world struggle to strike a balance between the professional and personal (Kaliannan et al., 2016; Yssen, et al, 2013). Nevertheless, the work satisfaction is higher in some countries like Norway as compared to other developed western countries (Rosta et al., 2019)

Medical doctors in Nepal have fallen victim to the practice of following the age-old tradition of acting as professional influenced heavily by the beliefs and practices of their seniors and teachers. Literature to support this issue is unavailable in Nepalese context. The need to perceive and practice critical reflection by the medical professionals has become an important part of professional development among our Nepalese medical professionals in order to guide their work by self-belief and values rather than those developed by their former practitioners and continue their passion for work as well as to balance their personal life. The purpose of the study is to understand the perception and practice of medical professionals on critical reflection. The research questions for my study is: how have medical professionals perceived and practiced critical reflection and the challenges faced while practicing critical reflection?

Literature Review

Critical self-reflection and practice

Critical reflective practice has been identified as a method by which individuals can merit their experience as knowledge and analyse the situation through different lenses of power, inequity, moral and ethical values and work towards changing practice (Ng et al., 2020). Currently medical professionals in academic institutes are faced with the responsibility of preparing medical students as 21st century professionals on one hand while on the other hand they need to have updated knowledge to be abreast with providing the best medical care to the patients (Wilson, 2020). This poses a huge challenge to the medical professionals which can be the source of anxiety, stress and limited performance, which may in turn lead to stress (Gardener, 2009). The stages of critical reflective practice illustrated by Larrviee, (2000) for teachers in the field of education also hold true for clinicians performing dual role of an educator as well as a medical practitioner. The first phase of examination, which questions and challenges our hegemonic beliefs, followed by a stage of struggle, where the individual is in a state of uncertainty which is also a state we fear of encountering lastly if we are able to negotiate the second stage, we reconcile and move towards change and start a new practice.

Reflective Practice among Clinicians

Clinicians are expected to undertake reflective practice as a part of their professional development however its practice has not been followed by many. The factors hindering its practice could be influenced by the sociocultural background of the individuals, their assumption, the influence of dominant ideologies and the knowledge of narrative writing as a practice of reflection (Brookfield, 2017).

Professionals, including medical professionals are guided by assumptions, simply referred to as taken for granted beliefs, which may well be the reason that brings our identity into existence (Brookfield, 2017). I have always carried the assumption that being a motivated person to learn new things and practice it in my real life will make me achieve my learning goals, however I was carrying a wrong assumption with me. A well-motivated and an eager

learner will not necessarily achieve his/her learning targets. I came to realize the difference in my long held assumption and reality only after questioning my assumptions. Likewise we are very much influenced by different kinds of assumptions highlighted by Brookfield, (2017) in his book namely paradigmatic, prescriptive and lastly causal. I as a medical professional and an educator in the field of medical education have always borne in my practice the beliefs largely influenced by others. There is a conflict between the experts institutional decision- making vs. a novice professionals evidence based practice which is usually overruled by the ideologies of the expert or the seniors (Brenner, 1984; Paterson & Chapman, 2013).

Narrative writing has been identified as a first step into critical reflective practice, as it may help an individual to untwine any complex phenomenon or process that needs to be looked into in order to come develop learning experience (Brookfield, 2017). It is also considered an important tool towards transformative learning which helps in adult development (Foote, 2015). I was unaware of such a role of narrative writing which allows a professional to come closer to his/her assumptions, ideologies which guide those assumptions and judge ones action based upon them. Such a practice gave me an internal voice, a voice that gave me confidence to critically inferred my actions and gave me a new learning experience. Medical professionals are far away from the practice of reflective writing as a tool to critical reflective practice, however with a highlight on the deeper benefits of such a practice may be a turning point in medical education and practice.

Transformative Learning

“Learning in adult is understood as the process of using a prior interpretation to construct a new or revised interpretation of the meaning of one’s experience in order to guide future action” (Mezirow, 1996, p. 162). This form of learning highlighted by Mezirow, (1997) as Transformative learning theory, explains that the learning process of developing and concluding new and reformed interpretations of meaning individuals concludes from the experiences in the world.

Mezirow, (1997) explained that an individual builds up his/her frame of reference based upon their assumptions which helps us in understanding our experiences. Any idea or situation that does not fit to our frame of reference, we usually reject it and label it to be not useful, however, a learner who is transformative, changes his/her frame of reference to be more inclusive and self- reflective and integrate experiences.

Mezirow, (1997) highlighted the kind of learners needed for the 21st century, to be an autonomous and a responsible thinker, who can critically reflect one’s assumption and engage self in asserting self beliefs through the others who share universal values.

The importance of critical reflection which is emphasized by Mezirow, (1995) to be an essential component of transformative learning theory, different from self reflection, where critical reflection makes an individual reflect upon the nature and consequences of one's action taking into consideration the related circumstances in which it arose (Kitchenham, 2008).

Critical reflective insights

A study by Ng et al., (2020), explored the critical reflective insights and practices among individuals involved in taking care of children with disabilities namely health professionals, advocates, parents they found out that critical reflective practice is not an in built trait in any individual and that it can be acquired through the process of learning. Critical reflective practice can be encouraged by allowing health education professionals to value their experiences as a source of learning blended with evidence informed approaches.

Methodology

Research design

I will use the method of collaborative autoethnography in my research as the method of gaining knowledge. Since I will be bringing across my voice and participants working in an institute,

who share commonalities in terms of past and present experience, knowledge, goals as well as a community of practice shared by us as medical professionals and educators.

Data Collection

I would take interviews of a few medical professionals (anesthesiologists) to start with and gradually include more to bring the voice, all practitioners trained in different universities in Nepal in order to promote diversity in training who are guided by different set of values and belief, all from different socio-economic and cultural background, while currently working in the same centre. Depending upon the information attained with interviews I will further engage in gathering data until saturation of the information. Informed consent from the research participants will be taken prior to the interview and data will be collected with multiple interview sittings with the participants until data saturation is achieved. The data will be recorded in the form of notes, audio recordings maintaining the confidentiality of the participants. I will explain to the participants the concept of the study and only after their agreement to participate in the study will they be interviewed. I will plan multiple meetings with the participants to gain an in depth understanding of their perception and practice of critical reflection.

Data Analysis

The collected data will be transcribed, followed by coding, categorizing and generating themes. The generated themes will be connected with the relevant theories.

Discussion

On the basis of the few interview sessions with the interview, the fact that the anesthesiologists have a passion for their work; however due to limitation in exercising their knowledge and skills guided by their beliefs, values and experiences has led to a level of frustration, anxiety and diminished interest for their work. The influence by the dominant beliefs of the organization and involved authority. The understanding of critical reflection and practice was limited in most of the clinicians however, many have a habit of reflecting upon their experiences of a situation involving dilemma during patient care, they would involve themselves in discussion with fellow colleagues mostly to develop measures of better patient care. The issue of overwork and underpay were factors leading to decreased job satisfaction among the clinicians. The lack of job satisfaction along with a lack of encouraging environment to promote professional growth motivated few clinicians to move to a foreign country for better professional and financial benefits. "There are many things that needs to be changed in our practice but I know its not possible", I feel powerless, one of the participants shared, such reflective thoughts are generated however the inability to transform an ongoing belief has led to frustration among the clinicians.

Conclusion

The perception of critical reflective practices are existent among the clinicians; however an in-depth knowledge and ability to exercise critical reflective practices are limited. There seems to be an existence of influence of those with power over those made powerless at work, which has largely hindered the professional growth of individuals. The challenges in practice of critical reflection could be lack of training modalities to clinicians, lack of confidence to be able to reform practices, large influence of dominant ideologies were a few of the barriers identified in practicing critical reflection by the clinicians.

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Annex

1. Interview Questions
2. What do you understand by critical reflection?
3. If not, then How do you learn to think for yourself rather than act on concepts, values and feeling of others.
4. How have you been practicing critical reflection?
5. How has practicing critical reflection helped you in your medical profession?
6. Is practicing critical reflection important for medical professionals?
7. How do you think we can encourage the practice of critical reflection by medical professionals?

Nexus between Ethnicity and Household Financing on Basic Education

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Introduction

Education is related to human development, which imparts the individual's knowledge, skills, and attitude during different stages of life. It is a continuous process throughout an individual's life, right from birth. In the view of Aristotle, education is the formation of a sound mind in a healthy body. It advances the ability of humans, especially their senses, so they might be able to appreciate the observation of ultimate fact, goodness, and prettiness, which complete pleasure fundamentally contains (Sharma & Sharma, 2016). Similarly, education significantly contributes to preserving the socio-cultural aspects and hands-on the future generation. Moreover, it aims to mainstream people in social change through strengthening democracy, valuing human rights, and creating a just society. Hence, the state has to make reasonable education provisions for its people.

The Government provides different levels of education to the people, such as basic education, secondary education, higher education, technical and vocational education, and non-formal education (Dupriez & Dumay, 2006). Basic education is the first step of education among other levels of the educational structure in the nation. The various instructive actions in numerous sceneries aim to encounter fundamental wants defined in the world statement on education for all (Dreze & Sen, 2003). Furthermore, it also includes a diversity of the non-formal and informal communities and individual activities proposed to meet the elementary learning requirements of the public of all ages (Aluede, 2006). It means all the fundamental knowledge-generating activities are included in basic education. However, in a formal education structure, basic education refers to the first step of the education system.

The Constitution of Nepal (2015) assurances the right to education as the fundamental right of all citizens. It comprises the right to access education, compulsory and free basic education, and free education up to the secondary level (Article 31). It shows that the Government of Nepal has prioritised school education as a fundamental right in the Constitution. Furthermore, more emphasis is given to basic education by making it free and compulsory. According to the Education Act-2028 (eighth amendment), basic education refers to elementary education to grade eight in Nepal.

Basic education is the most prioritised educational level in the global educational programs, policies, and agendas. In this context, the united nation development program (UNDP) set sustainable development goals (SDGs) in 2016 for the overall development of the globe. So, the SDGs have also focused on education and developed a global goal, such as "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" (UNDP, 2016, p. 7). Therefore, to ensure inclusive and quality education for all, the Government of Nepal has prioritised basic education to achieve SDG4. Furthermore, it has set the goal to "ensure that all girls and boys complete free equitable and quality primary and secondary education leading to relevant and effective learning outcomes" (NPC, 2017, p. 28).

Correspondingly, the Government of Nepal (GON) passed The Act Relating to Compulsory and Free Education in 2018. This Act made the state responsible for ensuring that no child is deprived of school education. According to the new Act, the Government has to ensure that every child of 5-12 years (basic education age group) is enrolled and receives a free education at public schools.

Consequently, GON has been spending considerable resources from the public treasury to fulfil the above-stated commitment. However, the resources from the private sector, including households, are also significant. In this context, a tremendous amount of money is being spent by students of all levels in our country to achieve an education. The student's families endure the amount required for school uniforms, stationery items, mid-day meals, etc. This expense varies depending on a family's economic and social status (Kushiyait, 2015). It explores that the parents spend their abundant resources on basic education for their kids even though it is free. In this regard, a study found that parents contribute 48.8 per cent of the total funding of education in Nepal (UNESCO/IIEP-USI, 2016).

Basic education, which enrolls a more significant number of students, receives the largest share of funding, with 49.9 per cent of the total public finance for education (MOEST, 2020). It indicates that the basic education level receives almost half of the entire education financing. On the other hand, households bear 48.8 per cent of the total education finance (UNESCO/IIEP-USI, 2016). It indicates that despite the Government spending enormous resources on education, the household also finances a substantial amount of resources on their children's basic education.

Similarly, Donkoh and Amikuzuno (2011); Okojie (2002); Rizk and Owusu-Afriyie (2014) and Choudhury (2019) argue that the cast/ethnicity, family income, gender of the students, type of school, and education of household head are significant determinants of household finance on education. Therefore, these factors play a contributing role in the determination of educational financing in the household. So, this study has attempted to find out the actual household financing on basic education in a municipality of Nepal and the effect of ethnicity on household financing on education.

Purpose of the Study

Find the per-child household finance on basic education and its nexus with ethnicity.

Delimitations of the Study

There are three forms of education finance by household, i.e., direct expenses (tuition fees, purchase of stationeries and books), indirect expenditure (finance on sports materials, day meal, educational excursion, and so on), and opportunity cost (foregone earning by the student while going school) (Woodhall, 1987). In this study, the researcher will collect only the data on households' direct and indirect education expenditure. The data relating to the opportunity cost of basic education will not be collected. Moreover, this study will be delimited to the Ratuwamai Municipality of Morang district survey.

Literature Review

Household Finance on Education

The burden of education finance is heavy on households (Tilak, 2002). Families in low-income countries spend more on their children's education than in the middle- and high-income countries (Acemoglu & Pischke, 2001). Similarly, in several developing countries, parents spend a far more significant portion of the average gross domestic product per capita on education than in developed countries (Todaro & Smith, 2020). For example, a study based on four countries Vietnam, Cote De Ivoire, Nepal, and Uganda, shows that the family contributes one-quarter of education financing in Vietnam, one-third in Cote De Ivoire, half in Nepal and more than half in Uganda (Huebler & Mcgee, 2019). It simply notes the heavy burden of educational finance on households.

In the Nepalese context, 5.3 percent of the total household budget is spent on education. Similarly, in the case of the Terai region, it was 5 per cent only. Moreover, according to the development region, 4.7 per cent of the total family budget was spent on children's education by the household in the eastern development region (CBS, 2011). It means a substantial household budget is financed for children's education in Nepali society. Moreover, parents spend their money to construct school buildings, playgrounds, and so on, besides tuition fees, stationery,

uniform, and coaching class fees (Kushiyait, 205). It explores that the households are bearing a considerable amount of finance on education from elementary to higher education.

Ethnicity and Household Finance on Education

The finance for the education of households is affected by various socio-economic factors such as family income, ethnicity, gender of the students, types of school, education of the household's head and so on. In this regard, Wilson et al. (2006) argue that there is a difference in educational finance by ethnicity, geographical location, and so on. Another thing remaining the same is significantly related to the likelihood of spending on education in terms of ethnicity. In the USA, African American and Hispanic families were significantly less likely to devote their income to education than white families. It indicates that the household finance on education in America also varied by ethnicity.

In the case of Nepal, there is a strong caste effect on the school participation of children (Stash & Hannum, 2001). The high-caste (Brahmin/Chhetri) households were significantly more likely to send their children to school (Jamison & Lockheed, 1987). Similarly, the family's ethnicity plays a decisive role in the participation of children in school (Ashby, 1985). More participation of children in school more is the household spending on education. So, ethnicity is a major factor affecting Nepal's household finance on education.

From the review of different empirical studies around the world regarding the effect of ethnicity in household finance on education, it is concluded that ethnicity plays a decisive role in confining finance on children's education. Moreover, ethnicity is one of the major determinants of household expenditure on education.

Theoretical Stance

The rational choice theory accepts that individuals or households wisely devote their scarce resources to fulfil their needs according to their personal and family needs (Green, 2002). The rational behaviour of the household may differ according to their socio-economic characteristics such as gender, ethnicity, income level of family, and so on. Their rational choices enact their interests (Redmond, 2000). So, the sensible choice of any household may differ due to different factors from family to family. They decide on their interest, such as spending the resources on their children's education or the other need. So, households decide to utilise their meagre income to fulfil different needs. The ethnicity of the household may affect the such decision. Therefore, per-child household finance differs based on the ethnicity of households.

Research Methodology

Research Design

This research will follow the quantitative approach adopting a descriptive and correlational design to gather and analyse data and establish the cause-and-effect relationship between ethnicity and household financing on basic education.

The researcher will follow the survey method to establish the rationale and give accurate and objective descriptions to accomplish this study. The researcher will use Yamane's (1967) formula to determine sample size and use the cluster sampling technique to select representative samples. Based on the research objective and hypothesis, a set of questionnaires will be designed to collect the data from the study area.

Study Area and Sources of Data

Ratuwamai Municipality in Morang district will be selected as the study area for this research. The population of Ratuwamai Municipality is quite diverse. Indigenous (Madhesi) people occupy the major population of this municipality. In this regard, 56.32 per cent of people are Madhesi, and 43.68 per cent are Pahadi. However, there is also diversity within the Madhesi people, such as Brahmin, Kshetri, Dalit, etc. (Ratuwa Mai Nagarpalika, 2021). Similarly, variety can also be found in immigrant people (Pahadi) from the hilly regions. Hence, the data regarding ethnicity and household finance in education can be analysed.

Population and Sample

The total number of households in Ratuwamai Municipality whose children are pursuing basic education will be the population of the study. The sample size will be determined using Yamane's (1956) formula (Monga, 2013).

Tools and Data

The structured questionnaire will be used to collect the data because the study will be based on the survey design (Majumdar, 2005). To construct the questionnaire, "the measuring household finance on education: a guidebook for designing household survey questionnaires" (p. 1) published by UNESCO in 2018 will be used.

The researcher will visit the selected households and clarify to them the research purpose and process of gathering information from them, which will be only after taking their consent. Furthermore, the researcher will persuade respondents that their data will not be publicised on their identity. Finally, the researcher will enter the data into the SPSS program and analyse it.

Data Analysis and Interpretation

The researcher will use descriptive statistics such as mean, median, standard deviation, and frequency table to describe the nature of the data. Similarly, ANOVA tests will be used to infer the result drawn from data analysis in the population (Dooley, 2008).

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Colonial Ideology and Epistemic Injustice in Mathematics Education of Nepal

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Abstract

I have experienced that Nepali schools and universities seem to be guided by conventional Western-Eurocentric emulations that prevent us from engaging in an alternative discourse in which interconnected ways of knowing are celebrated. We gradually become unaware of the detrimental effects of hidden encroachment of colonial ideology that helps create an epistemic injustice and vice-versa. In this regard, I want to explore the colonial ideology and epistemic injustice entrenched in mathematics education through auto/ethnographic inquiry. I deploy postcolonial theory as a theoretical referent for interpreting and meaning-making processes. The results revealed that embeddedness of myths of absolutism and foundationalism, the hegemony of the English language and consumerist ethos, disempowering informing pedagogy, and disciplinary egocentric thoughts support perpetuating colonial legacy in mathematics education further promote epistemic injustice. However, the participant teachers were unaware of these invasive attributes that help impede a transformative mathematics education. The implication is that we must always be conscious of colonial ideology and epistemic injustice. And we could be mindful of engaging in disrupting such disempowering practices aiming to envision a transformative mathematics education.

Keywords: colonial ideology; epistemic injustice; socio-cultural values; historical practices

Emergence of Research Issue

I rarely got an opportunity to engage in an alternative discourse of mathematics education before admitting to Kathmandu University, School of Education (KUSOED) to pursue a degree of Master of Philosophy (M.Phil.). In my M.Phil. journey, I got a chance to engage in different dimensions of mathematics education. Among them, social, cultural, and political dimensions were more precious because these attributes helped illuminate the hidden invasive nature of western modern mathematics. It further enhanced my understanding of how western modern mathematics has become a secret tool for cultural imperialism (Bishop, 1990). It promotes acritical, ahistorical, acultural and apolitical views and intends to produce culture of silence (Monchinski, 2008), a form of epistemic injustice.

The culture of silence drives the learners to become mutual followers. They cannot raise questions about asymmetrical power structures, 'status quo', and 'taken for granted assumptions' (Freire, 1993). It prevents creative thinking, and thus students become blind spectators of phenomena that help boost colonial ideology and epistemic objectivism (Kincheloe, 2008), a form of epistemic injustice. It further supports in creation of a metanarrative, 'the West is the best'. Learners have started to perceive mathematics as a set of rules, algorithms, and theorems that ultimately help neutralize and naturalize colonial ideology and epistemic injustice. Why could socio-cultural values, historical practices and ways of knowing are not considered in mathematics education? Whose interests are being served? In this regard, I want to explore the colonial ideology and epistemic injustice perpetuated in mathematics education in Nepal.

Research Question

How has the Western modern mathematics reinforced colonial ideology and epistemic injustice in mathematics education in Nepal?

Research Method and Theoretical Referent

I used auto/ethnography as a research method. The auto/ethnography helps explore the individual experiences within a culture and excavate culture within an individual. It is an emerging de/postcolonial research method that celebrates personal convictions, worldview, practices and experiences along with social, institutional, and historical settings for a holistic understanding of the phenomenon (Adams et al., 2015). It helps us to uncover colonial ideology and epistemic injustice because it works as an un-locker that explores hidden forces behind the colonial perpetuation, an energizer that empowers the marginalized people to fight against inequality and an enabler that enhances capacities in self/other so that they can work as change agents (Allen, 2011 as cited in Qutoshi, 2015).

To unearth colonial ideology and epistemic injustice entrenched in mathematics education, I need 'information-rich' participants and deep engagement (Patton, 2002) in the field. In so doing, three high school teachers having at least ten years of mathematics teaching experience from the Chitwan district were selected as research participants. I deployed in-depth open interviews and formal and informal conversations to generate the required information. Likewise, my lived experiences, convictions and practices were also used as field data. I acknowledged writing as a method of inquiry (Richardson & St. Pierre, 2017) in which uncensored lived experiences, feeling, emotions, and belonging were included. I recognized multiple and relational realities and acknowledged intersubjective ways of knowing and participants' values. I used the postcolonial theory as a referent for the interpreting and meaning-making process.

The postcolonial theory enabled us to see the colonial legacy and epistemic injustice and how they contribute to shaping mathematics education practices. It helps explore how the western modern project could naturalize the pathogenic colonial ideology and epistemicide (Santos, 2016), thereby creating a vicious circle of colonialism: condemning, brainwashing and conditioning (van Stam, 2017). Its critical intents also help raise practitioners' critical awareness of how existing mathematics education has contributed to the current form of epistemic injustice (Rizvi et al., 2006). The postcolonial motives us to bring a paradigm shift in people's ways of thinking and knowing to produce a more equitable and socially just world in which all people have an equal right to research scholarship and cultural well-being.

Results and Discussion

From the interpretation and meaning-making process, I have captured the essence of the experiences of the participants in the following section.

Myths of Absolutism and Foundationalism

Before engaging in my M.Phil., *I strongly viewed mathematics as a discipline consisting of well-proven theorems, structured knowledge based on a rigid foundation, incorrigible truth, and generalizable concepts. I felt proud as a mathematics student, and sometimes we (my colleagues and myself) engaged in defiant discourse for blaming groups of friends majoring in other subjects.* In a similar vein, one of my critical friends, Kriti (all names are pseudonyms), argued that *the mathematics curriculum has to develop based on rational principles and needs to incorporate universal knowledge and contents so that no one can raise questions; otherwise, our mathematics education will not be recognized by the international community.* Likewise, another friend, Umang, stated that *without a solid foundation and certainty of mathematical knowledge, we could not consider a mathematics education program. In my opinion, our mathematical practice could not develop a strong foundation and structural certainty, so we have repeatedly faced the problem of failure in mathematics.*

It illuminates myths of absolutism and foundationalism pervasive in mathematics teachers and educators that ultimately support fostering the ideology of singularity, realist

ontology and objective epistemology (Luitel & Taylor, 2010) collectively underpinning the epistemic injustice (Santos, 2016), because it does not welcome the local cosmological knowledge and ways of knowing. In our context, such practices started soon after the establishment of Durbar school and college of education, in which most of the curricula materials were imported from British-India and teachers were also trained by foreign educators (Shrestha, 2008). It led us to forget our epistemic pluralism emerged in diverse socio-cultural, ethnic and lingual groups (Phyak, 2021). Indeed, we didn't realize the necessity to teach and aware our children that we had our own epistemology and historical mathematical practices (Shrestha, 2008; Lamichhane & Luitel, 2022), further support absolutist and foundationalist views of mathematics which silently indoctrinate colonial ideology into the mind of prospective teachers and thus foster epistemic injustice.

Hegemony of English Language and Consumerist Ethos

My critical friend, Saurav, articulated his argument as *mathematics is a universally accepted subject. The nature of universalization helps us to develop globally competent graduates so that they can easily grab the opportunity available in the global marketplace. In this context, it is not necessary to argue against English as a medium of instruction and need not raise the issues of contextual mathematics in the information and communication technology era of the twenty-first century.* He added that *the arguments against English as a medium of instruction and standardized assessment system intended to paralyze our system and push us back into the nineteenth century because no one could enter the international job markets without a good English language command.*

Similarly, Kirti argued that *without English as a medium of instruction and globalized mathematics curriculum practices, how can we sustain in this twenty-first century? We do not think of reverting it. Some of the discourses, socio-cultural, historical, political etc., that you have raised (indicating me) are meaningless that contribute to lagging behind science and technological development.*

In my opinion, it is a product of the uncritical importation of foreign mathematics and the impact of capitalist thinking underpinning our socio-political milieu that could endorse consumerist ethos in youth and community (Ernest, 2016). Likewise, it promotes the views of thingification and objectification of education and learners (Memmi, 1965, as cited in Thambinathan & Kinsella, 2021), so that they become things to be sold in an international market. It happens when the education system is adversely affected by the worldviews of the colonial power and how people understand themselves and recognize socio-cultural values and epistemic strengths of their worlds (Rizvi et al., 2006; Santos, 2016).

Disempowering Informing Pedagogy

During my M.Phil. journey, I got an opportunity to revisit my pedagogical positioning through critical self-reflective practices. Now, *I feel that the teaching and learning activities adopted by most of my teachers and professors (including myself) were disempowering. Most of the time, we adopted piecemeal, reductionist, and prescriptive ways of teaching.* It helps enhance the concept of teaching as a mechanical, apolitical and acultural activity. Favouring the informing pedagogy, Umang argued that *mathematics teaching-learning activities must be based on strong conceptual structure:- definitions, axioms/postulates and theorems for ameliorating the conceptual understanding of mathematics. Our mathematics education could not develop or incorporate the deductive (Axiomatic) approach in mathematics, preventing students from enjoying mathematics's virtue and beauty.*

The apolitical and acultural approaches are guided by the banking concept (Freire, 1993). It focuses on imparting knowledge without due consideration of five interconnective ways of knowing: cultural self-knowing, relational knowing, critical knowing, visionary and ethical knowing, and knowing in action (Taylor & Taylor, 2019). Moreover, it is guided by conventional logics that promote exclusive dualism such as universal versus contextual, western

versus eastern, rational versus non-rational (Luitel & Taylor, 2010) and cognitive versus spiritual and favouring former ones, which certainly helps establish the superiority of western modernity. Through the prolonged implementation of such mathematics education programs, teachers make their beliefs and actions as they were taught and teach accordingly (Bhargava, 2013), which supports imparting colonial legacy and epistemic injustice.

Disciplinary Egocentric Thoughts

Before engaging in my PhD journey, *I held the view that mathematics is a discipline which plays a significant role in the advancement of scientific innovations, ICT and other disciplines. Mathematics is superior and all other disciplines are inferior.* Saurav aggressively pointed out that the *mathematics education practice of Nepal over the last two or three decades gradually lost its position due to unnecessary intervention by donor agencies. Previously, it had a strong curriculum containing modern mathematical concepts and standardized assessments. Liberal promotion policies resulted in diminishing the achievement in mathematics. Likewise, an integrated curriculum has been introduced in early grade (grade 1-3), in which mathematics is given less priority, and teaching mathematics needs to integrate other subjects and vice-versa. I can strongly claim that such a program creates havoc in mathematics education.* As a virtue, Umang ventilates that *due to the over-reliance on external experts, who are unfamiliar with our social, cultural and ground realities, our mathematics education gradually loses its essence of rigour and structure.*

These participants' stories largely reflect the teachers' worldviews who have grown with the conventional western modern mathematics education that has been in practice for the last two centuries. It promotes the disciplinary egocentric thoughts and realist agenda that overlook critical and creative thinking and ways of knowing (Connor, 2015). The disciplinary egocentric view promotes epistemic injustice because it ignores all other forms of knowledge, ways of knowing and values. It fails to see the connection between mathematics and other disciplines and disregards socio-cultural and historical settings (Connor, 2015). It also takes as hindrance forces which certainly creates room for colonizers to indoctrinate their ideology again promote epistemic injustice.

Conclusion and Implication

From the above discussion, I have come to conclude that the colonial influences in school and university mathematics education started just after the beginning of modern mathematics education, which was uncritically imported and implemented without due consideration of Nepal's socio-cultural and historical practices. However, mathematics teachers seemed unaware of its detrimental effects. The excessive modernist view pervasive among the practitioners plays a significant role in developing myths of absolutism and foundationalism, the hegemony of the English language and consumerist ethos, disempowering informing pedagogy, and disciplinary egocentric thoughts which promote epistemic injustice that further imparts colonial conceptions in practitioners' minds and thus supports for erecting a vicious circle of colonialism.

Last but not least, the colonial ideology and epistemic injustice have invisibly been indoctrinated in mathematics education in Nepal, supporting impeding personal and social transformation. It signifies that we must always be conscious of colonial ideology and epistemic injustice. And we could be mindful of engaging in disrupting such exclusive and disempowering practices aiming to envision transformative mathematics education in which practitioners can take ownership and enjoy the scenery and virtue of mathematics education.

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Practicing Multicultural Education: Narrating Gender and Sexual self at School Counselor Education an Indonesian Case

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Abstract

This pedagogical paper describes and discusses teaching activity of Counseling Multicultural course for School Counselor undergraduate students. Cultural self narrative aims at making students reflect on four area of their social identity: Race and ethnic identity, religious identity, gender and sexual identity and Social Class identity. Each students develop self narrative about their experience as group of member those social identity group. They send each narration weekly and discuss the content at class. This paper traces the main instructional phases of self narration methods and comments on students's learning experiences by reporting extracts from their self narration and reflection to the course on gender dan sexual identity. Overall this paper aims to describe how the teaching took place.

Keywords : Multicultural education, narrating self, self narrative, school counselor, gender identity, sexual issues in education

Transformative Learning through the School Production Unit: A Case Study of TVET School

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Abstract

School production units are a branch or department of technical and vocational education and training (TVET) institutions' practical areas or fields for the production of goods for facilitating work-based learning to improve transformative learning and upgrade skills for decent and sustainable work. This paper explore the experience of students learning approaches in school production units for transformative learning and upgrading skills for decent and sustainable work. A qualitative case study method was used in this study to explore the experiences of diploma final year students from TVET institutions in Nepal. This paper finds that production units in TVET institutions could contribute to students' experiential learning, active learning, competitive learning, sustainable learning, and collaboration and collaborative learning. The paper comes to the conclusion that school production units of TVET institutions are looking forward to improving transformative learning and upgrade skills for decent and sustainable work.

Keywords: *Transformative education, school production unit, TVET, decent and sustainable employment*

Background

Technical and vocational education and training (TVET) has been practiced in formal, non-formal, and informal approaches to education for the acquisition of skills and knowledge for better performance and sustainable employment (United Nations Educational, Scientific, and Cultural Organization [UNESCO], 2021). It is one of the important tools for social transformation through equity, inclusion, and sustainable development (El-Ashmawi, 2017). The objective of TVET is to prepare a workforce by acquiring knowledge, skills, and abilities that could enable them to effectively perform their job. Classroom-based theoretical knowledge not only improved the practical aspects of TVET but it also revealed skill gaps and mismatches (Naw, 2022).

School-based production units are a branch or department of TVET institutions' practical areas or fields, or labs, where learners are involved in either the manufacturing of goods as per market needs or providing services to the communities on the basis of their related subjects under the guidance of their professional teacher (Thapa., 2021). The school-based production unit is a new example of a work-based learning program that expands the interest of learners in TVET because there is support to improve transformative learning and upgrade skills for decent and sustainable work (Uchenna Chukwu et al., 2019). It is the area where manufacturing facilities, production facilities, and sufficient service-providing premises, as well as sales and distribution facilities, must be available as per standard specifications to assure learners' acquisition of adequate work skills and make them skillful as per industrial demands before the completion of their training.

The school production unit is a CTEVT- supported program for constituent, affiliated, and partner schools to improve educational relevance by integrating theory in class and practice in the workplace, i.e., in a school-based production unit for manufacturing and producing products with the best creative and motivated production plan and by providing efficient service on school premises. 2021). A school-based production unit provides not only a work-based

learning environment within school premises but also a chance to earn money for students. This earning with learning helps them to get sustainable TVET. TVET schools are obliged to equip learners to develop dynamic employees who have the ability to satisfy the needs of the workplace as well as to shift learners' status from being reliant on others' income to being self-sufficient, productive earners (Aw, 2019).

In light of the above, the goal of the study was to explore the experience of TVET student's about the role of school production unit in TVET schools to help their transformative learning for upgrading their skills for decent and sustainable work.

Methodology

A qualitative case study method was used in this study because case studies are important for researching a contemporary, real-life event that is time-constrained or space-constrained, and case study research is mostly used to look in-depth at a situation, problem, or event from the point of view of the people involved in the natural setting (Creswell, 2013; Denzin & Lincoln, 2011). This qualitative case study investigated CTEVT constituted schools' TVET students' experiences. Students in their final year who are actively involved in a school-production unit for their work-based learning were selected for data collection. Observations, semi-structured interviews, and document analysis methods were used for data collection. For an interview, 18 students (ten female and eight male) were selected.

The interviews were carefully transcribed and coded for each transcription. The relevant condensed meaning units were then grouped into categories. Then, categories were grouped under higher-order headings to form overarching themes. Each meaning unit was condensed and assigned a theme.

Findings

This paper draws on the experiences of eighteen diploma final-year student participants who were involved in a school production. Based on the participants' experiences, I developed five major themes: experiential learning, active learning, competitive learning, sustainable learning, and collaborative learning from the school production unit in TVET areas extracted from this study. Details of the themes are described below.

Production-based Experiential Learning

The objective of the school-based production unit in technical and vocational schools is the achievement of skills through relevant work experience in production-based learning steps. Most participant students agree that the school production unit is to offer direct working experience and on-the-job training that fosters students' opportunity to apply theoretical knowledge in a real workplace context. Field observation and documents like production log books show that school-based production units are connected with main vocational subjects, and they provide learners with workplace experience through the translation of theory to practice inside the school setting by producing products and integrating both learning and production. Work experience in a school production unit enhances the production skills needed in industry and other work situations by sufficient exposure to theory and practice. The school production unit involves learners producing goods and services as a part of their studies under the supervision of a professional instructor.

Production-based Active Learning

From my observation, I found systematic planned production steps are performed by the instructor to facilitate students' work-based active learning by participating and interacting with skill-based activities to produce a quality product as per market needs. Likewise, most participants agree that they have the ability to work in a team to accomplish shared outcomes that promote active learning. Active participation was seen during the observation of the students, by raising professional queries interrelated to their product, which will be manufactured or produced in the school

Production-based Competitive Learning

In the school production unit, students are divided into different groups to participate in different types of production. Each individual group is competing with each other for better production of the product. This competition enhances student achievement, and better engagement increases the innovation and creativity of students. Fourteen participants agree that competition helps students achieve better than their colleagues. In the school production unit, they like being the center of attention and getting praise for their good grades.

Production-based Sustainable learning

The production unit is expected to lead TVET institutions toward sustainability through income generation activities such as selling their products or providing services to communities. Twelve students agree that school production units can be used as learning sources as well as funding sources in TVET institutes. Students can increase their income in cash by selling goods and services provided. Commercializing knowledge and skills and the practice of production units over time will enable TVET institutions to stand the test of time, become sustainable, and reduce dependency on external resources, thus saving the national economy. It supports long-term TVET and helps students from low-income families because it follows the idea of learning, earning, and paying. Documents from the account department and their production logbook confirm their income through the school production unit.

Production-based Collaborative Learning

Students work in teams in a school-based production unit to promote work-based learning. They learn collaboratively through their interactions in their group discussions. Eleven people in the school production unit agree that collaborative and cooperative learning gives students a chance to work together and improve their skills.

Discussion

The objective of this study was to explore students' experiences of their production-based learning experiences and how these experiences helped them achieve sustainability and decent work through transformative learning. The findings of this study showed experiential learning, active learning, competitive learning, sustainable learning, and collaborative learning are the main themes obtained from students' experiences. These themes are the action-oriented, inquiry-based, and holistic basis of learning, and these are the main features of transformational pedagogy for sustainability (Bell, 2016). These learning skills, which are learned through school production units in TVET institutions where the teacher gives information, must give way to transformational education, in which the teacher helps students learn skills and competencies as well as basic values and facts.

Themes from my findings showed that school production units provide action-oriented active learning and people-nature interdependence through collaboration and enhance productivity through competitive and sustainable production-based learning. This is action-oriented transformative education, which is characterized by "people-nature interdependence, future focus, common agendas for sustainability, and personal and societal behavior regarding production and consumption. Likewise, school production units enhance transformative education based on Paulo Freire's critical pedagogy, which is seen as a way to develop students' awareness of themselves and their environment (Filho et al., 2018). As Freire proposed a method in which students take charge of their own education, the emphasis on education would shift from the instructor to the learner. This change allows students to take charge of their education by creating their own learning opportunities through school-based production. In a similar way, Mezirow (1990) defined transformational education as a way of learning in which students actively take part in the school's production unit to get a new or different understanding of what their experiences in the environment mean.

Conclusion

School production units are important work-based learning approaches by focusing more on learners in the workplaces of TVET polytechnic institutions. TVET polytechnic institutions have the responsibility of producing a skilled and competent workforce with action-oriented skills that can be produced from the school production unit. The school production unit is in charge of improving different types of production-based learning skills for transformative learning and upgrading skills for decent and sustainable work.

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Internal Assessment: Teachers' Perception and Practices

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Abstract

This study aims to explore the perceptions and practices of secondary teachers on grade XI assessment practices. The new curriculum in Grade XI demands formative assessment, introducing certain parameters; in this regard, how teachers assess the students plays a more important part in implementing the new curriculum. Formative assessment assesses the learners during the learning process with constant feedback. As a result, the learners get constructive feedback from the teacher and get the opportunity to improve continuously. Through narrative inquiry under the non-positivist paradigm, taking the data from the 3 working teachers of Grade XI, I have explored how "formative assessment" is perceived and practiced by the teachers in the classroom. The research draws the conclusion that formative assessment of Grade XI has not become effective with its true spirit and teachers need more training for its successful implementation to ensure the learning outcome of learners.

Keywords: formative assessment, Grade XI, Teachers, learners' learning outcomes, Curriculum, narrative inquiry

Background

I attended conventional education in school and college life and practiced the same as a teacher for a long period of time. There used to be summative Tests at the end of the academic session. I especially had this experience from Proficiency Level to Master's Degree of Tribhuvan University.

Despite being a good student, I rarely did well in the annual examination. I always got average results. Many of my friends used to astonish seeing my result. I always had underperformance in the annual exams.

When I joined KU, its assessment did justice to my potentiality and I could perform well. This incident has triggered my thoughts. At the same time, the government of Nepal introduced a new curriculum in grade XI. It made me ponder over the issue as an educator. In this regard, the present paper explores the teachers' experiences and perceptions regarding formative assessment

Implementing part of Formative assessment in Grade XI as introduced by Basic Education Curriculum (2077) seems more challenging unless and until the teachers' perception and practice of internal assessment is observed. Basic Education Curriculum (2077, P.10) mentions, "In formative assessment, emphasis will be laid on improving the learning condition by keeping the records of the students and improving the therapeutic learning." Here, the important issue is how the teachers are coping with this provision.

Similarly, Prayogatmak Moolyangan (2067) claims that formative assessment ensures effective teaching and learning practices and, to achieve the learning objectives targeted by the curriculum, formative assessment is essential. Guided by the research question, how do teachers narrate their perceptions and practices on formative assessment in Grade XI of Nepali Schools? The study aimed to explore teachers' perceptions and practices on formative assessment in Grade XI of Nepali schools.

Literature Review

Rowntree (1977, p.1) makes a comment that "if we wish to discover the truth about an educational system, we just look into its assessment procedures." This statement highlights the importance of assessment in learning.

John Dewey (1923) thinks of assessment as a dance practice. During the dance practice, the dancer gets feedback and improves the steps for the final performance, so does happen with learning process.

Education curriculum (2077) mentions that Assessment tools such as homework, classwork, experimental and project work, community work, extracurricular activities, unit exams, monthly and quarterly exams can be used as an integral part of classroom learning facilitation in school level internal assessment (p.10). It is a paradigm shift in the context of Nepal.

Khaniya et al. (2015) criticize the previous curriculum ‘There is not much value given to school based assessment. As a result, there is no practice of school based assessment which can effectively improve student learning.’ (p.5). In this context, how do teachers assess students under formative approach in Nepal? The paper seeks answer to this end.

Theoretical Perspective

Lebler (2008) highlights three functions of students’ assessment: assessment of learning; assessment for learning, assessment as learning. This is what the spirit of formative assessment.

Likewise, portfolios, or collections of student work, may also be used formatively if students and teachers annotate the entries and observe growth over time and practice (Duschl & Gitomer, 1997). It is a must process as it is a continuous assessment system. Similarly, Frey & Fisher (2011) emphasize that the teacher needed to establish learning goals, check for understanding, provide feedback, and then align future instruction with the students’ performance. It only ensures learning outcomes.

The teachers follow the Clinical treatment. They diagnose the problem of the learners and follow the clinical steps metaphorically maintaining the history and record of performance. Therefore, while looking over the practices, I am looking for whether the teachers are going through these procedures or not.

Methodology

I have represented through the multiple views and through various approaches (Ellis, 2004). A Narrative inquiry as narrative tells the truth and provides an opportunity to understand and know the truth closely. (Clandinin & Connelly, 2000).

This approach allows me to see the problem from my participant’s point of views providing the space for myself to express in different forms. The primarily, interpretivism as a research paradigm constructs contextual meanings of phenomena under inquiry (Taylor, Settellaier, & Luitel, 2012). Here too, I attempted to explore the meaning in the classroom context how the formative assessment is being practiced. I asked my participants to tell their life experiences related with assessment.

“Narrative inquiry is, first and foremost, a way of understanding experience” (Clandinin & Connelly, 2000, p.1). Therefore, this paper primarily explored the experience of teachers regarding their formative assessment. “It explores the subjective experience of my participants. Human beings think perceive, imagine, and make moral choices according to narrative structures” (Sarbin, 1986, p. 8).

Thick description, confidentiality, consent, prolonged engagement, revealing the purpose, trustworthiness and authenticity that I emphasized in my research as ethical standards.

Participants and field

I used purposive sampling while selecting my participants. My participants are 3 teachers teaching various subjects in grade XI from different schools. I tried to make it more inclusive by ensuring the private and government schools, males and females and even Brahman, Chhetri and Janajati. I have chosen the schools of A level, B Level, schools from Urban areas and Government schools from the rural area so that I could reach near to truth.

Methods of Data Collection and Analysis

I visited the field, Interview with participants, Google Questionnaires and Zoom meetings for data collection. I have saved all the phone calls, recorded interviews, and zoom meeting recordings in the Google drive for the future reference.

Then, I listened to the "data" collected from in-depth interviews. While doing so, I looked for trends in the narratives. In the data, certain things were repeated. I started coding the data for different themes or concepts for creating new knowledge (Neuman, 2006). After the narration of the participants, developing the themes, I started analyzing and interpreting the information. I took the themes that fitted with my research question.

Discussion and Conclusions

My research question 'How did teachers perceive and practice formative assessment in their classroom?' made me ponder over the narratives of my participants. All my participants came to the conclusion that formative assessment enhances learning experience. As Bikram Sir claims '*Formative assessment makes students conscious of learning*' It is the part of learning itself as it provides the opportunity to improve learning experience, enriching the learning outcomes. Teachers have a positive perception towards formative assessments. Sangita Mam says that '*Formative assessment is a good thing, we should follow it but being a new practice, we have just followed the formalities*'. They have the feeling that they have to implement it effectively as a part of learning itself but they are facing some hindrances. Formative assessment being new practice, teachers have failed to adopt it with true spirit. "Formative assessment is defined as assessment carried out during the instructional process for the purpose of improving teaching or learning" (Shepard et al., 2005, p. 75). My participants mostly did the assessment job at the end, not during the learning process. They should have given the feedback after the assessment and the students should have got the opportunity to answer their feedback so that they could improve their learning outcomes.

Satish Sir's perception and practice seems quite puzzling. He has highly positive views and knows the true spirit of formative assessment but in practice he has just followed the formalities. There seems to be a big gap between perception and practice. He grades the students at the end just to complete the procedures. His assessments do not provide feedback about how to improve, which is the crux of formative assessment.

First and foremost, the teachers have to be empowered with knowledge and skills of formative assessment and only then the implementation part of the curriculum becomes strong. Likewise, digital infrastructure like Laptop, Projector, and internet are the pre-requirement in the classroom for the effective assessment.

Heritage (2010) explains that formative assessment is a continuous process, and it is integrated into pedagogy to collect evidence about how student learning is progressing toward learning goals. They agree that formative assessment "takes place day by day and allows the teacher and the student to adapt their respective" (Allal & Lopez, 2005, p. 244).

All the participants unanimously agree that formative assessment enhances learning achievement; it must be carried out while learning stage providing ample opportunity of feedback and improvements of learners. Their perception towards formative assessment seems highly positive and they are determined that it must be practiced with its true spirit. But in the current context, some lacking persists and it has become more formalities rather than a tool to assessment as learning. Being new practice, teachers are still practicing like summative assessment.

Ultimately, agreeing with Shavelson (2008) we can conclude that in our context, our euphoria devolved into a reality that formative assessment, like so many other education reforms, has a long way to go before it can be wielded masterfully by a majority of teachers to positive ends.

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Ecopreneurship: A Sustainable Model for Entrepreneurship Education

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Abstract

Ecopreneurship is a combination of two words ‘ecological (eco)’ and ‘entrepreneurship’. Entrepreneurship is a part of economy which is demanded in modern open economies. Structural changes in the society are needed for creation of entrepreneurship. Entrepreneurship and more, particularly ecopreneurship, is essential to drive the sustainable transitions needed in educational sectors. Existing pedagogic frameworks should address these academic disciplines and they should be embedded in the educational curricula. This aim of this conceptual paper is to consider pedagogic and program design. This makes this paper of particular interest for academia, educational policy makers and education industry support sectors alike. An existing university that has both a student enterprise and ecopreneurship program and an established educational business incubator and accelerator is used as a case study to provide insight into how progress from ideation to commercialization can be more readily supported in a university setting. From a pedagogical perspective, it helps to develop new conceptual, methodological, and theoretically underpinned spiral pedagogies to teach and support colleges and universities as to how to exploit and take advantage of entrepreneurial and ecopreneur business opportunities. Ecopreneurship relates to environmentally friendly ways of doing business through school education systems.

Keywords: Ecopreneurship, Transformation, Environment degradation, School Education

Introduction

According to Schaltegger (2002), the term Ecopreneurship is a combination of two words, ‘ecological (eco) and ‘entrepreneurship’. Entrepreneurship can thus be roughly defined as ‘entrepreneurship through an environmental lens’. Ecopreneurship is characterized by some fundamental aspects of entrepreneurial activities that are orientated less towards management systems or technical procedures and focused more on the personal initiative and skills of the entrepreneurial person or learn to realize market success with environmental innovations.

Entrepreneurship education is defined as an educational program that is a source of entrepreneurial attitudes and overall interest in becoming successful entrepreneurs in the future. According to Budiarti and Bukirom et al., to measure entrepreneurship education variables based on the following indicators: entrepreneurship education programs grow the desire for entrepreneurship, when students have taken entrepreneurship courses, they feel a growing desire to become entrepreneurs; the entrepreneurship education program adds knowledge and insight into the field of entrepreneurship. Entrepreneurship education programs raise awareness of business opportunities. After taking entrepreneurship education, students are aware of existing business opportunities. Entrepreneurship education is an important component and provides a stimulus for individuals to make career choices, thereby increasing the creation of new businesses and economic growth. Entrepreneurship education is a learning process to change students' attitudes and mindsets towards entrepreneurial career choices that denotes the transformational in education.

Objectives of the Article

- To identify education, values and transformation

- To assess various opportunities and challenges for ecopreneurship in today business scenario in education sector.

Methodology

The method I applied is comprehensive literature review, secondary information collection and contextualize the interlinkages between ecopreneurship and analyze how transformation has happened and needed in the education sector in terms of ecopreneurship.

Review of Literature

Schaltegger (2002), in his paper has discussed the framework of measuring ecopreneurship. He mentions that there are five dimensions based on which ecopreneurship can be measured. These are environmental goals and policies, ecological range of products and services, market share, sales growth, and reaction of competitors.

Schaper (2002) in his research on “The Essence of Ecopreneurship” has touched on several aspects of environmental entrepreneurship. The researcher mentions that green entrepreneurship is a relatively new area but offers several opportunities for business sustainability through innovation. Kainrath (2009) in his thesis, has mentioned that ecopreneurship has emerged from finding solutions to environmental problems across the globe. Hence ecopreneurship relates to environmentally friendly ways of doing any business through transformation in education.

Evolution of Ecopreneurship

The relationship between business and the environment is not new. There was an upsurge of interests in environmental degradation during the 1960s, in Western Europe and North America because of the incidents of heavy smog in London caused by business activities. Business response to environmental concerns was antagonistic, with little care about the cost of business activities to the environment (Utting, 2000).

Ecopreneurship literature is still comparatively young (Linnanen, 2002; Pastakia, 1998a; Schaltegger, 2002). Ecopreneurship has thus become a market-based approach for identifying opportunities for improving the quality of life through meaningful education and sound environmental practices.

Education Transformation

In education sector, the state run global formal schools, colleges and universities started much later. It began to spread from 16th /17th century. The history of formal modern education in India began from the 18th century and in Nepal, it dates to the 19th century. Now, during the mid of 21st century, transformational education has been a key agenda for sustainable development. In a pre-literate society, education is acquired by gurus, parents, elders, religion, rites, customs, stories, myths, observations, and imitations of each other.

In 1870, the British Elementary Education Act was passed. In the early 19th century, mainly Churches became the education centers in Britain. At the same time. In the first half of 19th century, University College London and King’s College London opened. Many Nepali scholars are the graduates from these universities and played a key role in accelerating the transforming education in Nepal.

Ecopreneurship for Educational Transformation

There is a growing demand globally for renewable energy solutions, technologies, and products and as a result, there is a rise in opportunities for environmental entrepreneurs or “ecopreneurs”. This demand is the direct result of the challenges relating to addressing climate change, promoting sustainability, and improving environmental quality. As a result, there is a rise in opportunities for environmental entrepreneurs or ‘ecopreneurs’.

Human societies and the business which operate within them are substantial consumers of natural resources. Both organic (such as fish and flowers) and non-organic stocks (such as minerals or gas) are limited in their capacity and are a finite resource. Once consumed, many of them cannot be recreated. Without sufficient resources, firms cannot service consumers and so

generate a profit. Therefore, organizational survival requires biological survival (Arber Speich 1992; Barnes 1994,).

New Entrepreneurial Opportunities

Ayres (1997) remarked that “assuming technological and economic feasibility, it is difficult to conceive a painless (or near-painless) development trajectory such that each incremental socioeconomic change leaves every politically powerful interested party better or, at no worse off than before (p. 26).

Similarly, Walley and Whitehead (1994) remarked that the current talk of win-win solutions is cheap, while environmental initiatives are not, because of four main factors such as easy environmental problems have been fixed, as environmental challenges become more complex, costs are rising, and budgets are destined to increase even more.

Education, Values and Transformation

Education is to replace an empty mind with an open one for transformation. It is to awaken ourselves and the other by developing intelligence. It is to grow children into productive citizens that use their knowledge, talents, and learned skills to sustain themselves and help others to enable human race to move forward in areas of equity, justice, and harmony. Transformational education enlightens the person and society with good understanding, good health, good atmosphere, and good earning securing future. Here, I agree with John Dewey’s saying, “Education is not an affair of ‘telling’ and being told, but an active and constructive process”. Similarly, Albert Einstein says “Education is not the learning of facts, but the training of the mind to think for transformation”. Transformation in education strengthens the good character so that truth and uprightness are not sacrificed for selfish desire.

True values are more than successes that nurtures understanding, respect and happiness. A school is a place where children spent most of their time and energy to get to learn many positive values, roles, and responsibilities of their life. Value based education with transformation shapes future and add purposes to human life.

Transformation Happened in the Education Sector

Education and new technology help each other to advance the society further. Scientific knowledge based on technical education is used to create new technologies and new technologies often allow educational scientists to explore and innovate in different but logical ways and make new discoveries for meaningful transformation in education sector. Educational transformation is the key driver to modern development in education and infrastructure. As per Edward Teller “the education of today is the technology of tomorrow toward transformation”.

Relationship among education, science, technology, innovation, and globalization are not unidirectional. Struggle in transport, advent of ICT, migrations, growth in international trade and foreign direct investment; are a few aspects that have substantially shaped human life mainly due to transformational education. Modern educational approach shows how individuals deploy technology and use innovation, determining transformational role to facilitate the socio-economic change process. Educational transformation is needed to innovate ideas and life on this earth will be protected. Transformative learning involves using cognitive, emotional, social, and spiritual tools to reconceptualise and reshape this relationship. These higher-order abilities are essential for future community leaders to resolve complex ethical dilemmas arising from competing interests associated with issues of sustainable development (Luitel, B. C. (2018).

Findings

An overview of entrepreneurship education for transformation in general can be argued that entrepreneurship education contributes to the formation and development of-based skills ecopreneurship. Entrepreneurial values are more dominant is the value of creativity. Creativity is indispensable in entrepreneurial activities and things that need to be owned and developed in entrepreneurship for the development and success of an educational business. Creativity is seen as the ability to develop new ideas and to find new ways of looking at problems, solutions and

opportunities. School environment is a formal provider of entrepreneurship knowledge for transformation in education.

Conclusion

Based on the information collected and the results of this analysis, it can be concluded that entrepreneurship education is vital for transformation in education for developing country like Nepal. Ecopreneurship is a transforming system, socially committed environmental business characterized by breakthrough innovation. The current situation shows a clash between the conventional education, economic and the ecological system in global scale which will result in ecological degradation for the future. This article contributes to ecopreneurship and to the literature on actor selection like community schools and introduce school curriculum and engages in education through transformative approach.

Organizations also have the responsibility to make the consumers understand the need for and benefits of green products. Indeed, there are significant indications that environmental issues will grow in importance over the coming years and will require imaginative and innovative redesign and reengineering of existing efforts on the part of many businesses. Eco-friendly initiatives undertaken by ecopreneurs, and educational organizations will certainly be an integral factor in preserving the integrity of the natural environment through adequate value proposition, as it can yield better results for making successful business models along with environmental concerns even in educational sectors.

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A Transformative Journey of a STEAM Educator: Using Research for Advocacy of Change

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Abstract

This paper is developed from my MPhil dissertation in STEAM education. My journey as a teacher and teacher educator entails a transformative shift in thoughts and actions to embrace enabling educational models by promoting holistic and integrated learning systems. Characterized by conventional belief system of education, I was forced/motivated to be a transmitter of knowledge in a Banking Concept of Education as discussed by Paulo Freire in which I had to perform my duties and responsibilities to reproduce the knowledge for subsequent generations. My Masters and post-Masters' educational journey were the turning points for becoming a transformative educator who is responsible to facilitate learners (students/teachers) to reconstruct knowledge and skills of/for the world. I have used the theory of transformative learning and autoethnography as a method to portray this shift. My understanding/practices advocate for using progressive ideas such as the use of ICT-integrated learning from innovation, cultural contextualization, arts-based pedagogy, etc. Moreover, without being completely against conventional modes of education, the advocacy should be on discovering and implementing alternative models.

Keywords: Transformative Learning, Advocacy for Change, Progressive Learning

Introduction

The journey from a student/teacher in a conventional education system to a transformative education system is a shift in my thoughts and actions to see, perceive, and act in educational practices by emphasizing on holistic development of learners and societies. By critically reflecting on my experiences, I tried to bring my narratives to portray this shift. My experiences might be similar to your experiences of conventional educational system, values, and assumptions. More or less, this system prioritized assumptions of considering teacher as a knowledge transmitter or reproducer or source of knowledge and teaching as a job; student as a knowledge receiver or container; curriculum as a list of contents or culture of reproduction; examination as a race (Manandhar, 2022; Pant, 2015; Shrestha, 2018; Pant et al., 2020). When I got awareness of progressive education system, my understanding/practices hold the assumptions that teachers must be facilitators; the curriculum must focus on social reconstruction and formulation of values and behaviors among students that are essential for continuous improvement and growth; students must be active knowledge and skills constructors because they are responsible for their learning; and pedagogy must be for the purpose of knowledge reconstruction. After my MPhil in STEAM education, the awareness of cultural contextualization of education, the value of arts-integrated and discipline integrated learning; using technology for innovation, progressive methods (e.g., project-based learning, inquiry-based learning, etc.) changed my perception towards generating education and helped me to reformulate my thoughts and actions to be a constructive and transformative STEAM educator. So, this paper is a representation of that.

Transformative Learning Theory as a Theoretical Referent

Mezirow (1991) states that transformative learning theory is a process by which we transform our 'taken-for-granted frames of reference to make them more inclusive, discriminating, open,

emotionally capable of change, and reflective so that they may generate beliefs and opinions that will prove truer or justified to guide action' (p. 133). Transformative researchers "draw on constructivist, critical, social and arts-based epistemologies to examine reflectively, critically and imaginatively their lived experiences revealing the historical and sociocultural framing of their personal lives and professional practices" (Taylor, 2013, p. 2). My journey of becoming an educator was a transformative movement that has the attributes of the theory of transformative learning, such as learning by reflecting on disempowering belief systems, etc. and advocating for inclusive and empowering belief system.

Research Methodology

I have selected autoethnography as a research methodology and multiparadigmatic research paradigm (Taylor et al., 2012), combining interpretivism and criticalism. I used interpretivism to portray lived experiences of my culture and self and develop context-based interpretation; criticalism to bring forward the critical discourse of hegemony, status-quo, disempowering belief system, etc. I used autoethnography which is made by three interconnected triadic terms auto (self), ethno (culture), and graphy (research process) to portray 'selfhood, subjectivity, and personal experience ("auto") to describe, interpret, and represent ("graphy") beliefs, practices, and identities of a group or culture ("ethno")' (Adams & Herrmann, 2020, p. 2).

Discussions

Sense of Conventionality

As a student, I was presented with the context of learning where teachers used to be a sage on the stage to perform the ritual of lecture to transmit the containers of knowledge so that I could deposit them for my future (examination and job competitions). As a passive receiver, I used to keep information in mind by memorizing/rote-recalling them time and again. Teacher's performance was to spoon-feed me by telling 'important-for-future' sentences and by decontextualizing the contents because I could not sense it in my culture of being and living. Teachers, books, and guidebooks were only the sources of knowledge for me, and punishments were the motivational (with negative connotation) tools for rote-memorizing. One of the incidents when I was in grade 5 when one of my friends was not able to memorize the given information, the teacher beat him with sticks, injured him in blood, and told:

You rascal, scoundrel, poor fellow. How could you not even memorize this much information? How will you survive in this world with such performance? Go and look after goats, oxen, cows, etc. Go and do household work. You can do nothing in the future. Your father and grandfathers could do nothing good. You are also on the same line. Go 'Kathmandu' (the capital city of Nepal) to carry sacks with cement or wash utensils in hotels or restaurants. You are nothing. Your future is finished.

The expressions are sufficient to understand that mistakes are crimes then, but how can a person learn new things and develop knowledge without making mistakes? Moreover, *how could the teacher be so cruel and inhuman? What should be the nature of the student-teacher relationship? Do students trust you in such a situation?* In such a fearful situation, I invested most of my time to save myself from the cruel and inhuman behavior of the teacher. But there is widespread consensus in education that people (children) learn from their mistakes and mistakes are incredible learning opportunities and sources of understanding (Hattie, 2012).

Mathematics and science subjects, even other subjects, are separated from the arts and I was presented with the contents by using arts-based methodology. The expression of teacher used to be: *Is this your literature class? Is this your language subject? Is this your social study subject? No! This means you are not allowed to do such things in this period. These are the tasks of students who want to be artists. These are not important for a student who wants to be a great person in his/her life by studying mathematics and science. Read, memorize, and solve the questions given in the textbooks and practice books, in a cyclic process.* Mishra and Henriksen (2018) also asserted that schooling seems to be the most effective means to suppress creativity

and intelligence in modern days. I confess that the ignorance of arts lacks the interest of the student in learning. Teacher seemed to be unable to understand the value of arts.



The copying-and-pasting pedagogy was prevalent in my journey as a teacher and student. Textbook writers were/are copying the information from other textbooks (generally, textbooks of Indian or other foreign writers) and pasting them in their textbooks. Teachers were/are copying the information from those textbooks and pasting on the black/white boards. Finally, students were/are copying the same information from black/white boards/textbooks/notes and pasting them on the blank papers in the final examination. This copying-pasting business starts from textbook writers and ends with examination as the final battle of students. This was another dreadful situation of reproducing knowledge and transmit to the next generation which is against of the construction of conceptual understanding that is the knowledge essential concepts (Manandhar et al., 2022).

Within this jug-mug (transmitter-receiver) educational model, I perform my responsibilities as a teacher by copying my ancestors and teachers' ways of delivering knowledge by confining myself in a limited and conventional system of education.

My Shift Towards Transformative Education

During my Masters and Post-Master's journey, I was involved in various teaching and learning activities that potentially transformed my belief system of education from conventional education to constructivism and progressive education. This shift made me advocate for the progressive vision of education. One of my practices during this time was to use ICTs and technologies for innovation and empowerment. I was able to develop knowledge and skills to incorporate technological tools wisely to foster students learning as they are essential communicating with facilitators and co-learners guided by social constructivist theory of learning (Helling & Petter, 2012). This, I found, appears to be an alternative form of face to face learning mode in providing both facilitators and students to share thoughts, ideas, learnings, etc.; tracking the records of students; tracing the learning achievement and level of students; figuring out the engagement of students and teachers on the learning tasks; facilitating self-learning; and running collaborative works by inviting students to put their views on the given context/topic/issue etc.; making available the digital library to access the required resources to be downloaded; accessing the learning achievement of students, etc. This shift is likely to change the role of a teacher to facilitator, knowledge creator, and co-learner. The role of learner has also seemed to be transformed from learning to use ICT tools to using these tools to enhance their learning and problem solving. The rapid use of information communication and technological tools and techniques perhaps have transformed learning to access the world beyond a four wall of schools. So, this is one alternative and constructivist approach I advocate for change.

Next is the idea of cultural contextualization I advocate for. During my master's studies, one of the facilitators Mr. Reformist (Pseudonym) provided us a groupwork in which we had to discover mathematics in our cultural artifacts. This activity was completely new to me, and I had a very first chance to explore mathematics in my Newari culture. When I raised questions regarding 'ethnomathematics' when I first heard this word, Mr. Reformist replied: *Netraji, thank you for the questions. You raised relevant issues. Cultural mathematics means mathematics that you with your culture have been using for many years or even from your ancestors. These are 'our' mathematics existing in culture. For instance, there are communities in the village area where people use 'plough' or halo to plough the land. You might have seen Plough. That is the matter of cultural mathematics. The plough can be used to learn several concepts of mathematics such as there are straight lines, curved lines, different angles of different sizes, etc. So, these culturally embedded materials can be used to learn and teach mathematics.* After this conversation, our group work on discovering our cultural capitals and ended up with a beautiful result as follows:

Name of Artefact	Picture(s) of the Artefact	Cultural Usage	Mathematical Usage
Nyapu Shikha (Five Gold Chain)		It is another intricate piece worn on the head by Newari women which has many small strings attached to a point and is worn on the side of the head.	<ul style="list-style-type: none"> • Several geometrical concepts such as quadrilaterals, star, lines, angles, points, etc. • Symmetricity • Patterns
Dhimey Baja		This is a traditional Newari musical instrument used in various cultural programs and rituals.	<ul style="list-style-type: none"> • Concepts of circle • Concepts of cylinder • Concepts of geometry (shapes, lines (intersecting lines, parallel lines), angles (alternate angles, co-interior angles, vertically opposite angles), etc.) • Mensuration • Patterns

Rosa (2000) considers ethnomathematics as the intersection among cultural anthropology, mathematics, mathematical modeling that might be used to assist students to interpret various mathematical ideas and practices found in their community of practices. I find culturally responsive mathematics teaching (CRMT) wherein pedagogy is integrating both pedagogical contents knowledge and culturally responsive pedagogy (Aguirre & del Rosario Zavala, 2013) might be imperative. This perhaps refers to, in my opinion, recognizing and integrating students' culture and communities' cultural knowledge while designing instructional planning and executing them in the form of learning activities.

During my MPhil in STEAM education, I developed ideas on how/why arts-based methods are effective in delivering content knowledge in a motivating and engaging ways. For example, story-telling approach is effective to present contents in a narrative and story form to actively engage students in the process of knowledge construction. As an educator, I did numerous teacher professional development activities to help people understand the value of arts-integrated pedagogy. This is another movement towards the integration of arts in learning. It is considered that there are fundamental portion of the human brain such as prefrontal cortex, limbic area, cerebrum, visual cortex, cerebellum, auditory cortex, that need arts related activities or arts such as music, dance, drama, visual arts, etc. to proper function or activate (Sousa & Pilecki, 2018; Posner et al., 2008; Boccia et al., 2016).

I agree with Eisner (2002), who contends that sensory system does not work alone; it needs the tools such as language, the arts, science, values, and the like for its proper development. He emphasizes the role of arts by saying, 'education in turn, is the process of learning to create ourselves, and it is what the arts, both as a process and as the fruits of that process, promote' (p. 3). In such a context, integrated learning or education and STEAM (Science, Technology, Engineering, Arts, and Mathematics) as a pedagogical approach is effective and I advocate for this strategy. Here, STEAM as a pedagogical approach focuses on using multidisciplinary, interdisciplinary, and transdisciplinary approaches of curriculum integration to teach contents in a thematic and problem-solving manner wherein students are

engaged in dealing with some real-world scenarios to solve real-world challenges and problems (Manandhar, 2022). While doing so, arts-based approaches such as story-telling approach, dance, technology, performing arts, etc., are used to present contents in a creative manner. The approach is effective in developing 21st century skills and life-skills among students. Here, I advocate for STEAM pedagogical model. For this, the STEAM and integrated curriculum should be designed and implemented. Moreover, the nature of curriculum as agenda for social reconstruction, agenda for change, for developing students holistically should be in the focus.

Concluding Remarks

The critical reflection on my experiences helped me to discover the ways to imagine and create better alternatives to conventional educational models by prioritizing the holistic development of students. This shift is a transformative as it entails my perceptions and practices to resist the traditional assumptions of education and to advocate for progressive versions. My unfolding awareness is the wise use of technological tools for improvement and empowerment, culturally contextualized system of education, STEAM educational as a pedagogical model to embrace progressive methods of teaching and learning, and curriculum as/for social reconstruction and change, and assessment as/for holistic development of the learning and learner. Lastly, for me, these are essential to develop human resources for 21st century and next generation who can think and create better future for them and the world.

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Breaking Mismatched Relationship and Power Hierarchy through Collaboration: A Case from Participatory Action Research in a Public School of Nepal

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Abstract

This paper critically shares the lived experiences of two PhD researchers who had adopted the participatory Action Research (PAR) as methodological approach for conducting study in public school of Chitwan district of Nepal. Here, researcher had only shared their early field experience from 2018-2019 AD, which is now completely different, as the journey of PAR is continue till date. During the early field engagement mismatched relationship and power hierarchy was the main challenged that was faced and regular follow-up, informal meetings, prolonged fieldwork were adopted as remedial practice to mitigate those challenge before co-designing and co-implementing the school-based health education interventions. Furthermore, this study suggests to PAR researchers, especially the practitioner-researchers, have constant collaboration through prolonged fieldwork with negotiation and dialogic relationship with the co-researchers before co-designing and co-implementing the intervention activities.

Keywords: Co-researchers, Collaboration, Health education and promotion, Mismatched relationship, Participatory action research (PAR), Power hierarchy

Introduction

With the objectives of improving the quality of teaching and learning at basic schools in Nepal through innovative, transformative and contextualized pedagogical approaches through PAR, a project-based study was started in 2016, with coordination between three partner universities: Tribhuvan University (TU), Kathmandu University (KU) and Norwegian University of Life Science (NMBU). The project aims to strengthen the motivation and capacity of a range of stakeholders at the local level and also at the higher education level. Among the five PhD scholars from TU as PhD fellows, we two were looking for school-based health education session activities in collaboration with basic school health education teachers. We co-designed and co-implemented school-based health education session activities in collaboration with school stakeholders, particularly basic school health education teachers, employing participatory action research (PAR) as a methodology (MacDonald, 2012) in a public school in Chitwan district Nepal. This conference paper aims to share the lived experiences of early fieldwork of two PhD researchers, who spent their time together from June 2018 to May 2019, regarding how they developed collaboration with the school stakeholders (co-researchers) to break up the layer of mismatched relationship and power hierarchy before co-designing and co-implementing the school-based health education intervention activities.

Mismatched Relationship and Power Hierarchy

From the beginning of our fieldwork, we tried to be active inquirers to the school stakeholders towards the problems related to the skill-based health education and nutrition behaviours of basic school children, whilst the school stakeholders perceived us as the outsourcing experts. We had considered ourselves as a scholar from the University, while the co-researcher with whom we were working considered us as a developmental agent. We realized this when the teachers asked us for tailor-made solutions to their problems. Teachers argued that university

researchers are highly qualified with a higher academic degree. One of the basic schoolteachers, during lunchtime, opined.

“You are here from a university with a high academic qualification, but we are just undergraduate schoolteachers. We are yet to learn how to have an academic talk with you”.

Similarly, the school management committee and parent's teacher association used to invite us as the experts to provide them with a tailor-made solution to their problems. The community people also believed us as the 'religion change agents'. It happened because the project we belonged to was named *Rupantaran*, which literally means 'transformation' in English. They had a kind of misunderstanding towards us and our project. They thought that we were in the project school to transform the children's religious identity through project activities. Coincidentally, at the time, there was a rumour in the community about western people's influence to change Nepali people's religion through project-based activities. In the meantime, the professors from 'Norway' frequently visited the project school. This has created tension and dilemma (Smith et al., 2010). This situation pushed us to redefine the relationship with the community people.

We had to come out from all these discrepancies before co-designing and co-implementing the school-based health education intervention activities. We reflected that we could have prolonged fieldwork with dialogic relations among the school stakeholders to redefine our mismatched relationship (Ahmad et al., 2016).

Collaboration: A key to Break up the Mismatched Relationship and Power Hierarchy

Collegiality for Collaboration

Through the dialogic relation (Ahmad et al., 2016), we tried maintaining the 'power relations and hierarchy' between researchers and co-researchers. For that, we started reaching school on time, shared food with teachers at the canteen, engaged with students in the classroom during their leisure periods, and had a tea talk with teachers outside of the school. Apart from this, we also developed friendly relations with students by having participatory discussions, presentations, and collaborative learning in the classroom to familiarise ourselves with students' socio-cultural context, where they belong. After having a series of discussions, students also involved themselves in classroom activities with their active initiation.

Besides, we also interacted with the community people by involving ourselves in social gatherings like *Chautara gaf* (an informal talk with a cup of tea under a big tree, which is very common in Nepal mostly in the countryside) and *Melamahotsab* (local fair and festival where community people exhibit their local foods, goods, animals, and birds followed with folk songs, dress, and dance performance) to get familiarized with the socio-political context of the community and exchange our cultural behaviours with each other.

Co-understanding for Collaboration

The two PhD researchers, who engaged in the field works before we joined the school, had developed a PAR committee at school with 21 members from different fields; some of them were schoolteachers, parents, community people, health personnel, school management committee (SMC), local farmers, local political leaders, social activists, and female representatives. We worked with this committee as the learning community for us. The committee performed a series of activities prioritizing the school health and nutrition related needs together.

In the succeeding fieldwork, we got an opportunity to involve ourselves in the programme held at the school organized by the municipality education committee in collaboration with the Education Review Office (ERO), Ministry of Education, Science and Technology (MoEST). At the programme, the school management committee chairperson, ward chairperson, municipal education committee member, municipal vice chairperson, and authorities from ERO raised health and education related issues based on the survey conducted

in the school. Most speakers focused on improvising the existing classroom teaching practices and students' health-related behaviours. They particularly focused on health-related issues like proper use of latrines, hand washing behaviours, school meals behaviours, and disposal of sanitary pads. Further, the school stakeholders focused on solving those issues through collaboration with the Rupantaran team. The school chairperson concluded his remarks with, "*I hope the issues as highlighted by the ERO team will be addressed very soon by collaborating with the Rupantaran team through the need-based research activities*". This is the formal announcement of the school management to collaborate with us. This has created a paradigm shift to develop a kind of co-understanding between PhD researchers and the school stakeholders to contextualize the problems with solutions.

Supporting Environment for Collaboration

We (researchers and co-researchers) made a shared understanding for exploring the school's needs through the need assessment procedure before we switched to developing school-based health education interventions. Through the need assessment study, we explored life skill-based health education and nutrition education as the focused areas of the intervention. As PAR researchers, we were keenly interested in cooperating with the school's stakeholders. But initially, we could not find positive enthusiasm among them and a supportive environment for collaboration. Some teachers expressed that they felt overburdened after being involved in the intervention activities.

We held a round of informal talks with school's stakeholders regarding how to ensure their self-directed participation in the study. Based on the school stakeholders' choice, we involved them in observing one model public school to observe the key components of the school such as the Ecosan toilet, school gardening and farming activities, school midday meal programme, science laboratory, biogas plantation, and some entrepreneurship activities. We also interacted with the model school's teachers, SMC and PTA members regarding how they struggled to achieve success. After observing the model school, the stakeholders were motivated to participate in the school's health education intervention activities. Visiting model school inspired the school stakeholders, particularly teachers, to create a supportive environment for collaboration.

Participatory Approaches for Collaboration

As Jacobs (2012) asserts, 'PAR is all about doing research 'with' people not 'for' people' (p 48), we also involved teachers and students as the co-researchers of the study. From the time of rapport-building, we shared our professional knowledge and skills with the co-researchers. For example, Sudha shared her nurse skills, like measuring the schoolteachers' blood pressure and sugar level and Yadu engaged in classroom teaching in the absence of teachers. We started a collaboration with students, teachers, parents, and the school management team during the need analysis stage, where they were involved in contextualizing the problems from the emic perspective (McNiff & Whitehead, 2006). This kind of participatory approach made us familiar with teachers, students, and school stakeholders. Upon completing one academic session of our fieldwork, we could own the self-directed participation of the co-researchers while planning, designing and implementing the school-based health education session activities.

Though we heavily followed Jacobs's idea while undertaking the field works, where we (both researchers and co-researchers) were involved in participatory approaches throughout the process, it was not easy to ensure the self-directed participation of the co-researchers in PAR-based study. Unlike Salehi (2018), who claimed PAR is enjoyable for both researchers and the researched, we had tension and dilemma at the beginning of our fieldwork because of the mismatched relationship and power hierarchy between the researchers and the co-researchers. However, prolonged fieldwork with collaboration made us possible to break up these discrepancies, which further made us easy to plan, act, observe, and reflect upon the school-based health education intervention activities.

Conclusion

We reflect from this study that sharing professional skills and experiences with the school stakeholders helps manage the mismatched relationship and power hierarchy between the researchers and the co-researchers, which further needs prolonged fieldwork. We also reflect that as school is a complex adaptive social system (Keshavarz et al., 2010), we need constant collaboration with the school stakeholders to contextualize the needs of the school and design need-based intervention activities through participatory approaches.

Collaboration with the co-researchers through the PAR methodology is challenging and time-consuming, often demanding prolonged fieldwork with negotiation and dialogic relationships among the PAR researchers. Co-understanding, a supportive environment, and participatory approaches are essential to developing collaboration between the researchers and the co-researchers. This paper suggests to novice researchers who seek to conduct PAR in a similar context to develop constant collaboration with the co-researchers through prolonged fieldwork with negotiation and dialogic relationships before co-designing and co-implementing the intervention activities.

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Can We Teach and Learn All Subjects? A Journey of Breaking Down the Barriers

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Abstract

In recent years, interdisciplinary learning has become a trend in education to promote problem-solving through collaboration from various scientific perspectives. The transformation of monodisciplinary to interdisciplinary learning becomes an important challenge for Indonesian teachers to implement this integrated curriculum. Graduating with education and teaching based on particular disciplines, teachers certainly enter a period of re-learning to understand this transformative educational changes. Reflecting on my experience as a prospective educator, I come up with a common issue that teachers, pre-service teachers, and students may ask - Can we teach and study all subjects, especially science and mathematics, by integrating them with art-based pedagogy and ICT support? This influenced my way of thinking about breaking the barriers across STEAM to engage learners to become more knowledgeable, skillful, and aware to solve their contextual problems. Thus, this paper describes my journey of empowering STEAM education practices via autoethnography as a methodology and transformative learning theory as a theoretical referent. This research is expected to be helpful for educators and educational institutions to bring about changes in quality and meaningful learning practices.

Keywords: Autoethnography, interdisciplinary learning, STEAM, transformative education

Introduction

The interdisciplinary principles widely accepted today result from the conception of various projects initiated by UNESCO in various countries' early seventh decade of the last century and are referred to as integrated sciences. The interdisciplinary concept was understood at its inception as "a universal pedagogical and epistemological panacea" (Văideanu, 1975). Furthermore, Hughes (1985) argues that monodisciplinary is not a fallacy of knowledge but does not provide a complete picture of what is seen in isolation. This thought prompted him to propose various forms of curriculum integration: integration through the correlation of subjects, integration through themes, topics on ideas, integration in practical thinking, and integration through the learner's interest in the inquiry.

This paper describes my journey as a prospective educator in understanding the development of pedagogical approaches that support students' holistic comprehension. This paper incorporates my shift in thinking from teaching and learning concepts from a particular discipline to integrated learning across multiple domains. This shift was generated by the realization that there are no barriers between sciences in solving real-life problems (Boon & Van Baalen, 2019).

From a critical theory perspective, I reflect on and assess learning practices throughout my school education journey, starting from elementary to master in chemistry education. Here, I describe my life experience and make a critical explanation with a high awareness of how to deal with the demands of a dense curriculum in a monodisciplinary frame. Next, I describe my learning experience at the State University of Jakarta, which gave me a way to rethink educational practice from the lens of transformative education. This point became a turning

point for me to critically examine my system of thinking and assess the learning practices I have taken and develop new perspectives that align with the times. Thus, this paper also incorporates my journey as a prospective educator in empowering myself in STEAM education as an approach that facilitates an integrated curriculum and emphasizes the formation of a set of skills, values, and knowledge. The point of research question that guides me in describing my journey to become a transformative STEAM educator is: How is my journey from student to aspiring STEAM educator to empowering meaningful, lifelong, and sustainable education?

Bordering the Understanding

I was an empty glass and blanked paper – a saying that represents how I felt treated as a student in my school days. Armed with thick textbooks in my backpack, I rushed across the school gates and sat in class from 7 am until late afternoon to listen to the teacher's lectures. Not surprisingly, studying became a mandated routine activity that often bore me at that time. Not to mention the demands to pass the required score limit and the expectation to have a good grade graph for the duration of studying at a certain level. My head feels full of knowledge, like a teacher pouring ten subjects from different dispensers into this one glass that is considered empty. But there is one thing that bothers me – *why should I study it? Is it useful for my future life?* I couldn't see the relevance of each concept I learned in each subject, which eventually led me to one point: memorizing the concepts and passing each paper test.

Then, when I was in my bachelor degree in chemistry education, students' tweets on my first day of practicing teaching at school seemed to remind me of my past days. They talked about many things and expressed their grievances regarding various learning challenges. *I wouldn't say I like chemistry, even though choosing a science major was my parent's will, or I don't really like chemistry; there's too much I have to memorize. Likewise, physics or mathematics are too complicated for me; it's boring to listen to lectures and then work on questions set, and why should I study them? I can't even see their connection to our life.* I was stunned to hear it, a question that may have crossed my mind before. This point became a critical juncture for me to think about – *what is the best way to provide meaningful learning for students?*

Learning is like building a house – a proverb representing how I struggle to interpret each lesson to build a meaningful conception. Placing students in the leading role in learning means acknowledging their existence and giving them the confidence to become builders and owners of their knowledge. They are given critical freedom to reflect on their deep-rooted beliefs, values, intentions, and attributes (Mezirow, 1991). In this context, the teacher does not mean letting students sink into the vast ocean of knowledge without giving directions on where they should swim. Henceforward, I continue to learn to improve my teaching practice by reflecting deeply on the curriculum, pedagogical approach, and educational journey that I have experienced as learning. So I believe meaning is construct through learning, reflection, and dialogue (Manandhar, 2022). Thus, an understanding of transformative education led me to a conception of how to provide new ways for students to see the world and provide opportunities for them to criticize and consider their assumptions in constructing their understanding (Paul & Quiggin, 2020). Moreover, this journey became a stepping stone for me to move to STEAM educators as a transformative movement to empower them in learning. In addition, it provides new ways for the students to see the meaning of merging the scientific boundaries they learn to have a holistic understanding to solve problems in their lives.

I implemented STEAM learning on the concept of acids and bases by placing them in a dilemma about the detergent waste problem as a starting point in project development. Students are enthusiastic about new learning experiences by making a detergent wastewater treatment project. They tried integrating their acids and bases concepts, testing the pH solution using universal indicators, and utilizing technology products such as laptops to design PowerPoint as an attractive and interactive communication medium. They also created models and applied precise calculations in developing their projects. Analysis of the observations throughout the

learning and tests carried out, the integration of STEAM has supported the development of students' chemical literacy (Rahmawati et al., 2020). In addition, working in groups to solve challenges opens up space for them to develop collaboration, communication, and critical thinking skills.

Design Thinking: Blurring the Disciplinary Boundaries Across STEAM

Sailing to the new horizon – another saying that describes how I found myself drowning in the ocean of a complicated educational context, not knowing where and with what to start, then how to reach the shore. I feel that there is a new horizon in teaching that I have never explored as a prospective educator. Armed with the design thinking training I received at the undergraduate and master's levels in chemistry education, I learned new things that basically implemented in the business world. I feel that bringing the practice of design processes into the classroom to engage learners in real-world contexts is closely correlated with important concepts of STEAM education (Henriksen et al., 2019; Liao, 2016). In the context of education, design thinking supports opening up space for the integration of various disciplines (Cook & Bush, 2018). The design thinking practice I experienced challenged me to think creatively in model development. However, I have to think about how to understand the pain points and needs of other people as users, think quickly in generating ideas, collaborate to reach team consensus, develop prototypes, till conduct tests to find out how far the solutions made have met user expectations.

Reflecting on how the design thinking experience has encouraged me to develop valuable skills, I think that – *is it possible to bring design thinking into education to spread its benefits?* An in-depth study of various literature and reflections on my learning experiences, showed me the importance of implementing the design thinking-STEAM model in teacher education courses to enhance teacher professionalism. To become professional educators, prospective teachers must possess a good understanding of technology, pedagogy, and content knowledge. Thus, I implemented the design thinking-STEAM model in a basic chemistry course for pre-service chemistry teachers by integrating global warming as a contextual issue that needs to be solve. They were warmly and passionately welcome this practice. I engaged the pre-service teachers to do some techniques in order to understand the situations, defining the problem, and challenged them in a brainstorming as a medium for generating ideas quickly. Besides, they encouraged to do ICT integration to facilitate their collaboration (e.g. jamboard, moodle, zoom meeting, and etc.) and designing their prototype (e.g. canva, figma, videoscribe, doratoon, and etc.). *I can correct my misunderstanding of certain chemistry concepts; this practice led me to develop various skills I need as a teacher candidate, such as communication, ICT skills, and critical and creative thinking. In addition, the practice of design thinking-STEAM inspired me to continue to explore various pedagogical approaches to increase students' understanding on how this integrated discipline works in real-life problems.* The pre-service teachers' reflection touched me and made me realize that blurring the boundaries of STEAM through the design thinking process can sacrifice the depth of knowledge gained in individual disciplines, in order to gain understanding that transcends disciplines (Chalmers et al., 2017).

Concluding Remarks

Engaging in critical auto/ethnography studies has prompted me to reflect on my experiences as a student, teacher candidate, and educator. I raised a few questions: *Was it a meaningful journey? Am I applying the proper knowledge and skills to solve my challenges of providing meaningful learning for students? Has my practice empowered other prospective educators and myself to become teaching professionals?* I walk from a monodisciplinary learning experience that places each discipline in an insulated box. Learning by rote became a common thing I experienced to prepare myself to achieve the highest score target in the exam. I realized that such practice had killed a critical skill in my life. The learning journey encourages me to

transform my thinking to put students as the main actors in learning and give them the freedom to reflect and mix their innate understanding and assumptions in constructing their new knowledge. Through the research that I have done, I have found that the practice of blending the boundaries of disciplines has brought benefits for students to find new ways to see the world and integrate their understanding to solve contextual problems. In this paper, I also articulate my journey against conventional models in teacher education and advocate the empowerment of pre-service chemistry teachers through the practice of the design thinking-STEAM model as a transformative educational practice. It opens up opportunities for inquiry, problem-solving, critical thinking, innovation, communication, and collaboration. As an educator, I advocate transformative learning that emphasizes applying knowledge and skills to solve contextual problems to encourage students as agents of change in maintaining environmental sustainability.

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Assessment Practices by Community Schools: Questions on Transformation, Equity, and Justice

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Abstract

The paper aims to present the contemporary modality of assessment practices of community schools in the name of reform and transformation, which have created stress for the students and parents, thereby affecting their well-being. More test in school creates more anxiety for students and parents. The backwash effect of the test hinders the development of students' creativity. This paper explores different assessment practices of community schools that focus on scores. The paper also reveals that more tests cannot support student learning. Recent practices by community school as a means of quality education and transformation create inequality to disadvantaged children. Deprivation in the enrollment process based on score creates injustice as well. The cases are analyzed by taking the reference of the capability approach.

Keywords: normative assessment, test anxiety, score, transformation, equity, justice

Introduction

The term test, examination, assessment, measurement, and evaluation can be used interchangeably; however, they have different meanings. In this paper, the term assessment has been used more comprehensively than others. Assessment is the process of finding out the strength and weaknesses of the student's learning. In the education system, any assessment activity has mainly three purposes i) to know the status of student learning ii) to certify the student learning and, iii) to monitor the strength and weaknesses of the education system. Lingard et al. (2006) mention that assessment is also the power act to privilege and exclude the underperforming ones from the learning process.

Comparing the students' performance based on the given criteria and ranking them as competent and incompetent could not be a good practice. It is a critical question to the schools that rank the students in this manner, ignoring their creative possibilities and holistic development as well as individual privacy and dignity. The community schools are doing the ranking practice from kindergarten based on their exam performance and have posted on social media publicly.

The assessment system in education has been rooted in the concept of measuring personal merit and intelligence in a normative manner. The Nepali education system has been largely dominated by the paper-pencil test, which falls under the normative test and is used for ranking or selecting students based on scores. The purpose of the assessment can be determined by how the assessment data has been used. The single assessment information can be used for formative, summative, diagnostic, and placement. Scriven (1967) categorized the assessment in two ways summative (assessment of learning) and formative (assessment as and for learning). Assessment has various purposes, but the crux should be supporting and motivating student learning (Hattie, 2012).

Assessment has different meanings and purposes for different people, and they understand it differently. Young children who come to school to develop their full potential are faced with a competitive, stress-fueled, and score-focused assessment system. Score centered assessment system and the high-stake assessment in different grades hinder the full potential of the student. Taking high-stakes entrance tests for enrollment has raised questions about the purpose of education and school. Schools seem to disagree with the discussion of reducing the number of

tests showing the parents' aspirations. They are not taking responsibility for convincing the parents; rather they just offer the education that parents want, like English as a medium of instruction, a greater number of tests, and punishment in the name of discipline, as presented in the cases below.

According to Gardner (1993), multiple intelligences exist in everyone at different levels but the assessment practices by school measure only linguistic and mathematical intelligence. Using only the paper-pencil test for the assessment and the test items designed only covering the lower-order thinking skills (Anderson & Krathwohl, 2001) could not be justifiable for diverse students. Then, a challenging question for the school is measuring only two to three types of intelligence and creating their rank with other individuals. This is a concern about justice and equity in the educational system.

Moreover, students and parents also show their pride and prestige accompanying high test scores in the test even in trimester exams and kindergarten. UNESCO (2018) studied the culture of testing in Asia and the Pacific region, which reveals that family and society are the greatest drivers of developing assessment culture in school. The parents always put a kind of pressure on their children to secure high scores on the test. Then, the students are worried about disappointing their families. Pressure to do better in exams leads to stress, anxiety, depression, and even suicide. In our context, there were many suicide cases found after the publication of the result of Grade 10 (Rastiya Samachar Samiti, 2016). The trend seems to depict reform of the certification system, but not in assessment practice. In this regard, the purpose of this paper is to explore the assessment practices adopted by community schools as a means of school transformation and to explore how the assessment practice contributes to inequality and injustice. The paper only covers community school practices regarding student assessment. The cases presented below cover the entire study.

Case 1: Rasiya Secondary School HT

We are offering English medium education for parents. It is our responsibility to fulfill our parent's desires. They demand more tests and scores on the test. We have taken weekly exams in upper grades and monthly exams in lower grades. Our teachers have no leisure time, even on Saturdays and public holidays, to prepare exam papers and scrutinize the answer sheets. They present their dissatisfaction with more involvement in the examination process. So, we request parents for a small amount of money for the teacher's motivation. We are doing good, parents are satisfied with us, and they are ready to pay some amount monthly. We have put pressure on enrolling the children, but we select the students based on merit. We offer quality education with low fees. Many students from private schools have been enrolled in our school.

Case 2: Janjyoti Secondary School Teacher

Without changing the approaches of teaching-learning practice, the examination itself does not contribute to student learning. The schools have taken the exam to collect fees. When the exam routine is published, then almost all the students pay the fees. Without paying the exam fee, the student will not get an admit card. It creates anxiety among students and parents. Only taking the test has not been supporting student learning, except for creating anxiety. Sometimes teachers have just taken the exam to take a rest. Similarly, sometimes teachers just show their work to the headteacher but do not provide feedback to students. I worked at a school in an urban area and one in a rural area of Rupandehi. The school in the urban area paid teachers for preparing questions, invigilating and scrutinizing answer sheets, but the school in the rural area did not provide any allowances to the teachers. Examinations have different politics and are used just to differentiate the children in learning achievement.

Case 3: Saraswoti Secondary School HT

We have weekly, monthly, and trimester exams. For those who are poor in the exam, we provide them the chance as the supplementary exam. We prepare for better results in tests, so we know the test is very important for children and parents. We know that students will study for the exam. Class teacher takes unit-test at least once a month. Students should be attentive to the test. Parents are happy with our assessment practices.

Case 4: Janapriya Secondary School Teacher

I know that taking more tests is bad for students. We need to reform the classroom. Conducting more tests in school is our obligation. The market model of education seeks more grades or scores on tests. To get more grades or scores, students must practice and recite the answers. By attending more tests, they will read more and get more marks. I know about the student anxiety, pressure, and demerit of more examinations. Society, parents, and even local government want to see students' scores. The big question for a community school is survival. We may be doing wrong practices for survival in the market. We don't want to dissatisfy our stakeholders. There are multiple approaches to transforming the present normative assessment, but I couldn't do it alone, and my school also cannot do it.

Method

To accomplish the objectives, the researcher reflects on his observation as a scholar and practitioner of the assessment system for ten years. School visits in the Kathmandu valley, interaction with the teacher and students, some secondary data, and telephone conversations with the teachers are the sources of information. The collected information is interpreted based on the different perspectives (e.g., teachers, parents, and students) and through Sen's (1993) capability approach. Four different cases were collected from two HTs and two teachers. One HT and one teacher from the Kathmandu valley and one HT from Province one and one teacher's opinion were taken from Lumbini province. The information has been collected from the community schools. I have selected the community school and teachers as they developed their identity as good schools.

Discussion

The government policy of school-level assessment has focused only on formative and continuous (CDC, 2019). However, the schools are practiced with a focus on the ranking of the students based on a normative way. The recent trend has been growing to post all the personal details of the student, achievement scores, and rank on social media. One model school has posted the result of all the students of a class with ranks, even early childhood education (Shrestha, 2021). Similarly, Rastiya basic school in Rolpa posted the student result with positions first, second, and third, whereas there were only two students in Grade 2, and they were ranked first and second (Panthi 2022). Moreover, the class teacher and schools behaved discriminately toward the students based on their learning. The social media post itself indicates it. Community schools have developed their identity as good schools, just follow the private school assessment system like entrance tests for enrollment, unit tests, and monthly tests and ranking the student based on their score (Acharya, 2021; Pradhan & Valentin, 2020).

Student enrollment based on merit

Selecting the student in the enrollment process leads to pressure on the students. When they are trying to get enrolled in school, they should already have better knowledge of the assessing subject. Selecting the students based on merit demands that students should gain knowledge before entering the school. Students who can spend more time in pre-school will get more scores to secure a good position. Enrollment of the students based on merit deprives the children of disadvantaged groups, minorities, low learning level students, and the poor. This indicates that enrollment based on merit at the public school is trying to serve only the high-class people. The parents are putting pressure on small children to perform better in entrance

tests. In the city area, there can be found tuition centers and entrance preparation books for grade 1. This could be an injustice and raise questions before going to school. Selecting the student based on merit leads to injustice to some children. Similarly, weekly and monthly basis tests create pressure on children. The teacher from Janjyoti school presents his opinion that the student should attend the exam to practice for getting a good grade in the final exam. However, the case 4 teacher has a different opinion than the case 1 and 2.

Do more tests lead to more learning?

Assessment practices by the school do not seem to be effective in enhancing student learning. It does not seem to motivate the student in the process of learning. More tests create more anxiety and pressure on the students. However, teachers and schools are focusing on tests for various purposes. The purposes of the assessment should be positive and supportive of the student's learning. In practice, it seems ineffective, as mentioned by Moss and Brookhart (2009). An examination should work as a windmill for student learning. The teacher and school share that when the notice is published for the test, then the students will start reading for it. This is the backwash effect (Biggs, 1995) of the assessment to teaching. Such practice leads to teacher teaching for the test. Marope et al. (2017) stated the issues of assessment in many education systems where teachers tend to teach for assessments, tests, and examinations. The schools which show better results in the tests from Lumbini Province have many examination activities. It seems that they just focus on assessment rather than good teaching.

Capabilities (Sen, 1993) approach to education focuses on children's holistic development. Nepali education system more focuses on scores, and schools focus on tests rather than learning. Normative assessment does rank the student based on their test score. Due to social-cultural factors of the assessment, the parents are also putting pressure on their child for better performance in tests. It creates anxiety, depression, and pressure on the students. Similarly, the schools that enrolled the students based on test scores (called merit) offer education only for capable children. Social justice and education as public goods have raised critical questions.

Equity and justice

Education could be the means of reducing social inequality and promoting social justice, but the assessment system creates inequality. It only focuses on the test score and merit, categorizes “good” and “bad”, high achiever and low achiever, and so on. Learning inequalities exist between different groups and regions of the country. The public education system does not seem to be effective in reducing inequality. The concern is not only access and equity, but it deprives a certain group of people in the name of community school transformation. The school has become a place where students, families, educators, and administrators have thrived, regardless of race, ethnicity, religion, and other social differences (Irving, 2016). The examination system of the school has created inequality in society, and less priority is given to developing individual capability.

The case from the school and teacher practice and understanding of community schools are just adopting more tests, student selection from test-based merit, rank the student, high-stakes exam and just teach for the test. The practice which is adopted by the school does not seem to be a good practice. Schools should emphasize informal classroom assessment. Exams should be the tools for learning motivation, assessment for and as learning. The activities of the assessment are designed for assessment *for* and *as* learning, transformation is needed from formal assessment practice to classroom assessment. The classroom assessment allows the teacher assess the student in an informal way with greater autonomy.

Conclusion

Assessment is an integral part of the teaching-learning process. Reducing the formal examination activity becomes supportive to motivate the student. More focus on classroom assessment in an informal manner provides the information to a teacher for providing feedback

and support to the students. Given more focus on classroom assessment, the student's motivation to learn improves, and its benefits to student's well-being. Better classroom assessment practice can ensure better teaching-learning and better learning outcomes and the holistic development of a child. Only taking more tests and focusing on more scores cannot bring transformation to school. Well-planned classroom assessment creates energy for student learning.

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Ecopreneurship as an Innovative Pedagogy for Sustainability

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Abstract

Nepal is a country with diversity and these diverse people have their own indigenous knowledge. Their socio-cultural know-how has largely influenced their daily practices towards sustainability as they possessed high respect towards mother nature. But these days, in the name of modernization people have slowly started to embrace the western culture and values and have started to show the disastrous footprint on the earth. They started to ignore the uniqueness of their own indigenous knowledge, which prioritizes sustainability. Hence, this paper will focus on viewing indigenous knowledge as ecopreneurship and developing ecopreneurship as an innovative pedagogy. This paper uses Action Research to intervene in the current pedagogical practice to introduce ecopreneurship as an innovative pedagogy. The participants of this research will be the teachers and students of grades eight and nine.

Keywords: Indigenous Knowledge, Ecopreneurship, Innovative Pedagogy, Action Research

Background

The environmental issue and its sustainability has been a matter of concern in every aspect as its condition is deteriorating daily. In this regard, Appannagari (2017) stated, “The environmental crisis is caused due to environmental and ecological changes as a result of the developmental process of the economic and technological man of the present century”. In order to live a lavish life, people started to exploit the natural environment without considering the negative impact on the environmental aspect. Dues to this, in the past decade, in order to coordinate with the interests of globalizing economies, bicultural diversity, and the natural environment, the United Nations identified the compulsion of education for sustainable development (Taylor & Taylor, 2019). Instilling students with the values and belief in sustainable development has been a necessity at the school level so that their further steps and activities will just be directed towards the conservation and preservation of the natural environment, whether their activities might be economic, political, or socio-cultural aspect. Hence, incorporating ecopreneurship as an innovative pedagogy for sustainable development will try to solve the prevailing environmental crisis.

Most of the people in urban areas is so used to the easy and comfortable lives that they have slowly been abandoning their own practice of producing different eco-friendly items like weaving straw mats, making different earthen pots, creating utensils out of copper, bronze, etc and even slowly they have turned their agricultural land to housing area to live a comfortable life. They are in favor of importing their daily necessity and other goods rather than producing their own which were unique and traditional. This type of activity has raised the dependency of people upon other countries to fulfill even their daily necessities and the pandemic and lockdown have made us realize how dependent we are upon others for fulfilling our basic needs if our neighboring countries stopped exporting our necessities, we would die of starving and not fulfilling basic necessities.

Along with this, most people are practicing their daily activities without considering environmental health like turning agricultural land into residential areas, excessive use of plastic materials, use of outdated vehicles emitting poisonous gas, and excessive use of insecticides, pesticides, and other chemicals to increase production decreasing productivity of land and having an impact on human health. Hence there is a direct impact on environmental health

causing environmental crises due to changes in the lifestyle of human beings. In the name of modernization, people have been continuously extracting natural resources which directly have an impact on the environment. If this continues, then surely the next generation will question our existence.

Keeping the environmental crisis at the center this paper aims to explore the ways in which students will be able to sustain their own life through environmentally friendly activities which ensures sustainability by empathizing with the ways how the environment has been degrading day by day in the name of development. Incorporating ecopreneurship as an innovative pedagogy helps to instill life skills among learners so that they can lead independent lives ensuring environmental health. Keeping this concept in mind the main purpose of this research is to explore the ways to incorporate ecopreneurship as an innovative pedagogy to ensure sustainability.

My research focuses on the different ways to make teachers and students aware of environmental crises and the importance of ecopreneurship in order to sustain one's life without having an impact on the environmental aspect. Hence, I will be aligning with the following research question: How to incorporate ecopreneurship as an innovative pedagogy for sustainable development?

This study will be significant to teachers, teacher educators, and curriculum developers to incorporate ecopreneurship as an innovative pedagogy in the curriculum in order to ensure a sustainable environment. Incorporating ecopreneurship as an innovative pedagogy into the curriculum will help students to empathize with local issues and will help students to understand the importance of eco-friendly activities to live a sustained life and at the same time engage students in their ecopreneurial activities to enhance their creativity, critical thinking, rational decision making, interaction, and problem-solving skills along with enhanced empathy, aesthetic, moral and ethical values.

Innovative Pedagogy

The term "innovation" itself refers to improvement, modernization, or advancement. Subsequently, bringing improvement in the teaching-learning practices is Innovative Pedagogy. The demand of today's world is to enrich the students with critical thinking, creativity, self-reflection, interaction, logical argument, negotiation, and problem-solving skills along with enhanced moral values and ethics which are considered 21st-century skills. Santos, Figueiredo, and Vieira (2019) claimed that "in an attempt to respond to the demands of today's world, teachers have been abandoning the traditional model of content memorization and verification, seeking to train critical and reflexive professionals, capable of solving problems" (p. 12). It is obvious that an old mindset does not lead to a new path. Therefore it is crucial to discard the conventional pedagogical practice to meet the demand of the 21st century. Challenging the conventional approach to teaching and learning, the educational system should be reformed by facilitating students in the learning process through inquiry-based and project-based approaches. In this regard, the improved pedagogy or innovative pedagogy should include content that focuses on problem-solving, critical thinking, reflection, reasoning, rational argument, and interaction abilities for the holistic development of the learners.

Transformative Theory

People have slowly adopted the lavish lifestyle, thereby abandoning their own way of producing or creating their daily necessities goods. This result in the excessive import of goods from other neighboring countries to fulfill our basic needs and convert their own fertile land into housing area or decrease the quality of land using excessive chemical to increase the production impacting the environmental health. Along with this, people's own knowledge of production or creation has been eclipsed due to addiction of comfort or lavish life. So here my question is; How to make people aware about the impact on the environment as the consequences of human daily practice? How to encourage people to continue with their own traditional practice in the

production of their own unique knowledge or skills which are eco-friendly? Hence, to solve this issue, it is necessary that the education sector can play the vital role. For this it is necessary to make the teachers and learners critically reflect upon their daily practices and the skills and knowledge of our ancestors. Mezirow (1997) stated that when any reflection is done critically on the assumption upon which our practice, beliefs, expectation, and disposition or thinking process are based, then the transformation takes place. Hence, making learners aware about the existing practice and its impact upon the environmental crisis, along with making aware of our own traditional unique skills and knowledge in the production and creation of daily necessity goods helps bring transformation in the existing curriculum by incorporating ecopreneurship as an innovative pedagogy for sustainable development.

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Schools Sustainability Strategies During the Covid -19

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Introduction

I was keenly interested in teaching mathematics. My teaching process was teacher centered and I was not satisfied with this teaching. Because the students were not able to solve the mathematics critically and develop their creativity. After completion of my bachelor degree I joined my Master degree in Kathmandu University School of Education in 2013 AD. I tried to implement mathematics teaching learning on the student centered. I was able to engage the students in group work, critical interaction on mathematical problems contextualized with real world (Sanders, 2016). The mathematics performance of the students were gradually improving. The school management were happy with my activities of mathematics teaching. One of the board member of school management offered me to invest in the school. I was happy with their proposal and tried to make a dream of 21st century global school.

I joined my school as an executive director and acted as the vice-principal. My KU class was continued which helped me to practice the concept of student centered teaching learning in my school. I was working under my principal. He wanted to change the school but lack of number of students and financial burden we could not get success. I worked for 5 years as a vice principal. I found that the financial problem effect on the day to day school operations. The school management was not able to invest that is why we could not able to run the school. We decided to handover to any other stakeholders. I was thinking about my dream to establish a 21st century global school was not completed. I shared my problem with my friends circle. I and my friends were engaged in the cooperative. My friends suggested me to take over the school and operated through the cooperative. I was encouraged with my friends and took an initiations to operate the school through cooperative investment and management. After leading by the cooperative the huge amount of investment was done. New infrastructure of school, enough spaces of playground and resources made me felt that now I can transform my school as a 21st century global school. I was an executive member represented from the cooperative and acted as a principal.

In the year of 2016 AD, I had a bitter experiences of day to day school operation in the past. I made a plan for quality education. I created the environment of in-service teachers training in the school premises. I invited the experts from the KU for teacher professional development. Some time I also organized the workshop as I was a teacher educator. My beliefs was that the teachers should trained as a student centered teaching learning paradigm then only I can able to create an environment of the 21st century global school. I consulted with various stakeholders to change the quality of education in my school. I was very happy and excited to work with the British Council of Nepal on the International School Award (ISA). I was participated in the various workshops organized by the British Council. Also, I sent the teachers on ISA workshop as well. I created the environment of sharing in the group of teachers. I assigned the quality of task to the teachers which was effectively carried and the students were actively engaged in the project based learning. The students were presented their projects among their parents, local community and our national and international partner school. I was able to collaborate with more than 14 different international school from various countries. I was happy to work with them. My students were working with them and they were constructing a new ideas by sharing, presenting, interacting, engaging on the project work. The students generated a meaningful learning from the project based learning (Kean and Kwe, 2014). Our students were engaged on the various projects such as ‘Roof Top Farming in the City Area’,

‘House Hold Solid Waste Management’, ‘Sithi Nakha as a Local Curriculum’, ‘Rice Plantation’, ‘Maha Puja’, ‘Art and Craft’ etc.

In 2017 AD, British Council of Nepal evaluated critically our projects and facilitate as ISA winner school. I was very happy to share that we were awarded with the International school award and also won the best project award on ‘Roof Top Farming in City Area’. I got lots of appreciations from the various organization and realized that now my dream came true and proudly able to announce that my school was branded as a 21st century global education. I had built up a relation with my partner school and working a project with them. The British Council offered me for the reciprocal visit with my partner school at UK, London. In the year of 2018, I had visited to my partner Prendergast School at UK for 2 weeks. It was my great experience and memory. It motivated me to make our school as an academic institution in my locality. I came from the London with lots of energy to transform my school. I proposed my plan of school transformation in the board meeting and all the members were very happy with my proposal. I was planning to implement my next plan of academic journey from the new academic session. But at the end of academic session, there was a covid-19 pandemic. We were almost finished the end exam of the students of this year. School management committee and I was very worry about to execute our plan in the next academic session. I was blind on the process of teaching learning due to the pandemic. The government announced the lockdown sequentially. I was waiting for the government notice. But the lockdown was continuously carried by the government. It was all about for 2 years.

During the covid-19 pandemic, it was very difficult to teach the students. School was closed for a long time. The students were not getting the education. There were challenges to deliver the knowledge due to the time situation of pandemic (Bozkurt and Sharma2020). It was a worldwide problem and in our context also the same problems were faced by all the schools. The social media helped to connect the students and parents during the pandemic and we had no more option for physical teaching learning. So, we started the virtual class for 2 years pandemic. The various challenges were experienced during this pandemic on the teaching learning. Moreover, the different strategies were also implemented for effective teaching learning and sustaining my school. Mhlanga and Moloi (2020), stated that the school were transforming from physical to digital learning. The problem faced during the digital learning and sustaining my school in the covid – 19 pandemic was very challenging.

The teaching learning during the covid-19 pandemic was very difficult. The government had also no idea about to start school physically but announced to start virtually. Digital learning was new teaching method for us. Teachers were not familiar with the digital literacy for taking virtual class (Lamsal, 2020). The parents and students were not mentally ready for taking the virtual class during the pandemic. Students were engaging in their household activity and there were no more teaching learning. In this situation, the major concern was big challenging for sustaining my school in this pandemic.

The electronic gadgets and internet facility management for virtual class was very difficult for the parents. Also, the parents and students were not familiar with the electronic gadgets like laptop, tablet, desktop and smart phone. Most of our parents were using smart phone for taking the virtual class and the internet was not strong and the teaching learning was not fruitful. According to Surkhali and Garbuja (2020), the digital literacy of teacher and student for conducting virtual class was insufficient. Peer learning, two-way communication and interactive class during the virtual classes were not as fruitful as in the physical classroom setting.

Social Constructivism

Society is a group of people and culture is the learned behaviors that are shared by the members of society. According to Njuguna (2021), socio-cultural theory is an arising theory that people's development is possible through their involvement and engagement in society and culture. It

emphasizes and suggests that there should be regular communication between the society, people living there and their culture. Learning stimulates the holistic development of a child which is possible if the child interacts with the real world and through cooperation among his/her peers.

Zone of proximal development (ZPD) enhances cognitive growth. The student can learn and generate new knowledge through the zone of learning with the help of a facilitator. Scaffolding learning process is used in Vygotsky's zone of proximal development theory. The support and encouragement to the students during the learning enables them to engage in learning activities (Roth & Radford, 2010). He believed that it is cooperation that acts as a basis for learning. While teaching mathematics to empower and scaffold students, we need to use as much control as we can in the elementary classroom. Controlling can be effective tools to motivate and support students to remove mathematical anxiety and to assist for high involvement in mathematics learning.

I have viewed an assessment as an inseparable part of teaching and learning. That is why the teaching and learning process is continuous and needs to assess student learning continuously. I used the zone of proximal development theory on how students are learning and where we should scaffold them for better learning.

Finding and Discussion

Digital Literacy Skill and Teaching Learning Impact

My school was on the learning phase of digital literacy. We collaborated with the national and international school on various project was done during the ISA project. We implemented the digital learning such as email, power point presentation, and project sharing by using skype with the partner school. Students and teachers were being familiar with the digital literacy. Students gradually improving their learning while collaborating projects with the partner school. Care et al. (2018) mention the presentation, interpersonal, intra-personal, critical thinking, collaborative and communication creativity and imagination skills of students were developed day by day while working on the project based learning. I found that the digital literacy skills was very important for the 21st century global education. The critical thinking motivate to find new ideas for which the digital learning was very effective in which the student and teacher could easily search on the internet.

We were promoting the digital literacy skills in the physical class but when the covid - 19 pandemic happened then we were getting confused to deliver the education. At that time, the lockdown made us unable to start the physical class. The regular class was stopped and we wanted alternative process of teaching. The student and teachers were at home and it was difficult to take a class. There were no ideas about virtual class. Even though, I found a learning management system moodle cloud and taking class through zoom meeting. I introduced the online training on the implementation of the moodle cloud and function of zoom meeting. This learning management system helped us to start virtual class (Namada, 2021). I found the students and parents were not familiar with the learning management system and we tried to orient and trained about the learning management system. I realized that most of the students got a problem on electronic gadget because they could not offer and due to which the learning was not effective than the physical class.

Digital Learning: Physical to Remote Learning

Coronavirus covid -19 was the cause of transforming learning environment from physical to remote learning. The long time lockdown pressurized to accept the virtual class and digital learning. I found that the teaching learning process was changed from physical to remote learning during the pandemic. The implementation of virtual class was challenging task for us because it was new approach. The concept of learning by doing had been used to understand the digital learning skills during the pandemic. The zoom meeting were used for taking a virtual class but there were a problem on the assignment checkup for this we did work on the moodle

cloud learning management system. We also used the ‘veda’ learning management software for the virtual class which made us easy to manage the classes.

Learning management system, internet and social media connected all the teacher, student and parent closely in the virtual class (Squire, 2022). I found that the teaching learning could be done through virtual mode. But all the parents did not have a facility of internet and electronic gadgets which creates difficulties of remote learning. Classroom management on virtual class was very challenging for the teachers. Remote learning was new for all. So, the teacher also could not address the function of learning management system and the classroom was not effective. When the teacher and student were familiar on the virtual class then they enjoyed on virtual class and the learning was improving gradually. The mindset of physical class disturbed teacher and student while conducting the virtual class. I realized that now a day if there were any problem and could not present the teacher and student physically then we could continue the learning through virtual mode.

Struggle during Pandemic for Sustaining School

Long time lockdown due to the pandemic made me difficult to sustain the school. There were lots of problems which I had to address. The major concerned was to deliver education to the students. We did not have any alternative ways of physical class. We accepted the virtual class and tried to include all the students on the virtual based teaching learning. I created the environment of in-service teacher and students training on digital literacy skills because it was the fundamental parts of the digital learning (Schrodt et al., 2022). I created online webinar to the teachers on how can we teach effectively through virtual class. In this regard, I introduced google, google drive, google sheet, google docs, email, power point presentation, learning management system, zoom meeting. I motivated to the teachers for developing the digital literacy skills. The hard work and active initiation of teachers made me built up the confidence of taking virtual class. It was difficult to monitor students closely in the virtual class than the physical class. The student attitude and behavior was not in proper discipline in the classroom. So, I realized the strong bonding and communication between teacher, student and parent was very important. I started a PTA meeting and tried to counseling the students and parents for active participation on the virtual class. It helped me to create effectiveness on virtual class. Some of the parents shared their problem that the students got electronic gadget and internet facility and they were engaged on the online games rather than learning. It was very difficult task and I counseled them that the parent was a first teacher for your children so, your positive response and guidelines were important for the progressive learning. I found that the organizational based operating school got less problem in the pandemic and it was easy to manage the problems and solution among the teacher, student and parent through academically, financially, socially, morally.

Strategies Implemented on Virtual Class

The familiar with the digital literacy was the key point of the virtual class. So, I created the environment of the training, webinar on digital literacy on the phase wise to the student, parent and teacher. It helped me to conduct the virtual class smoothly. The academic teaching learning plan was another challenging part on the virtual class (Oliver et al., 2010). For this, I prepared the online plan submission policy and monitoring strategy for the effective teaching learning. I observed all the virtual class by attempting their class and gave a feedback and encouragement clinically to the teacher for improving their teaching learning. Moreover, I motivated to the students for their active participation, discussion, sharing, presenting and completing the assignment. I found that the parenting education was very important for effective teaching learning. I did continuous communication with the parents and tried to aware the role of parents during the pandemic and parenting education which helped me scaffold the students for their learning progress.

Conclusion

Digital literacy was one of the key components of the 21st century global education. Digital literacy skills was very important for the teacher, student and parents for effective digital learning. Corona virus covid – 19 pandemic gave us a lesson that we could teach not only through the physically. The remote learning was also possible for effective teaching learning. The resources for remote learning were very important for the virtual class. So, the government, school administration, and parents should manage the required resources for the digital learning. The entire education system was transforming from physical to the virtual mode during the pandemic. Now, we could apply the virtual class in normal days not only in the pandemic. The proper management of academic, administration, financial helped to sustain the school in the pandemic if it was leading through institutional based and systematically followed by the teacher, student and parents. The continuous in-service training, parenting education and scaffolding to the students helped to improve the learning. It impacts the entire school for sustainable development.

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Transformation (Rupantaran) in School Teachers of Nepal due to Participatory Action Research

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Abstract

Quality education is a way to ensure good health, healthy livelihoods and contributes to economic growth of the country. The main aim of this paper is to improve the quality of teaching and learning at the basic education level in Nepal through innovative, transformative and contextualized pedagogical approaches. Quality education is the fourth goal of sustainable development goals SDG that this study is aimed to fulfill by motivating and capacity building of head teachers, teachers and students. Rupantaran, which means transformation, was established to improve health, livelihood and education and conducted participatory action research in five remote schools of Namobuddha Municipality, Nepal. As a result of this participatory action research, there are some transformations in school teachers. This study shows that teachers are empowered after being involved in the study. Teachers developed ICT skills and now the teachers are using ICT in the classroom as needed. The teachers are able to teach using STEAM approach in the classroom. In addition, the teachers also use project-based teaching/learning practices in the classroom connecting classroom activities with gardening, mushroom farming, goat farming, etc. Due to field visits in many different sites, the teachers are able to develop sustainability plan for the on-going project activities. In conclusion, it can be stated that school-based activities are means to develop a sense of belonging in the community and to reach large number of parents in the wider community.

Keywords: Quality education, intervention, participatory action research, transformation

Background

Rupantaran, which means transformation, is a project funded by NORAD. Kathmandu University, Tribhuvan University and Norwegian University of Life Sciences are working with several schools of Nepal to bring change in education, health, and livelihood. Rupantaran aims to improve the quality of teaching and learning at the basic education level in Nepal through innovative, transformative and contextualized pedagogical approaches to build the motivation and capacity of head teachers, teachers and students to improve health and livelihood prospects at the local level, and to build capacity at the higher education level to take a leading role in establishing dynamic networks which focus on the development of innovative, transformative and contextualized programs to improve teaching and learning. To improve the quality, relevance, and sustainability of education in Nepal, Rupantaran planned the concept of contextualized curriculum approach to teaching and learning.

Rupantaran has been focusing on different components such as participatory action research, innovation in ICT, transformation, empowerment of the school community, contextualization of curriculum, capacity building and policy advocacy to name a few, to improve the teaching and learning in schools where resources are constrained. As every other public school, Janajana school (pseudonym) was also following the traditional didactic approach of teaching. Teachers were following the teacher-centered approach to teaching. The teachers were not familiar with the progressive method of teaching, such as inquiry-based teaching and learning, project-based teaching and learning, art-integrated teaching and learning, etc. After doing a need analysis, Rupantaran team members conducted several researches through master's, MPhil, Ph.D. and Post-doc students.

To explain the work of Rupantaran, the concept of mandala is being used. Each piece or the research that each student is conducting represents the pieces of mandala, which is beauty of Rupantaran. Each piece or research perfectly matches with the other piece or research and balances to give a broader shape. To beautify the mandala, each students-researchers' interests add a new dimension to the mandala. Students-researchers' research topics/interest are professional development, STEAM pedagogy, mushroom farming, robotics, fish farming, pig farming, Ecosan, gardening, goat farming, gender, hydroponics, inquiry-based teaching and learning, and contextualized curriculum, which are done to bring transformation in the school. Students/researchers are working on each piece or research to bring a holistic change in the schools, teachers as well as in community. Furthermore, each piece of the mandala is in collaboration with other pieces for the smooth run of the project. Thus, the purpose of this study is to describe the transformation in teachers, schools or the community due to the involvement of researchers in the school.

Theoretical framework

Transformative learning theory was a driving force behind this work. One of the main elements of the project is social transformation. For transformation to take place, one must be aware of their prior knowledge, current information, and current worldview. The evolution of an existing point of view and the establishment of a new point of view, both of which are the results of being aware of our misconceptions and prejudices and critically reflecting on them, are described as transformations by Mezirow (1997). For social transformation, Rupantaran conducted several training and seminars.

Change is a natural process, and both the world and schools experience change. In certain cases, the school brings about change while in other cases, the change is brought by the school. The school is also altering or self-organizing in this shifting world. The interventions served as triggering events that caused a transformation to take place.

Methods

Study Site and the participants

To see the transformation in schools, teachers and the community, this study looked at five schools of Namobuddha Municipality, Kavrepalanchok District; however, this paper will focus on one of the five schools of Namobuddha Municipality, the name of which is Janajana Secondary Public school (pseudonym). The school is located in a hilly region of Kavre, which is 59 km away from the center of Kathmandu. The participants of this study are the schoolteachers of the school. There are 18 teachers, 9 of which are teaching as basic teachers.

Study Design

Participatory action research is action research that aims to intervene in the school to bring change in the school with equal participation of all the participants. We followed the spiral chain of planning, action, observation and reflection involving the head teachers and teachers in this participatory action research. The following conceptual framework was used to bring transformation in teacher's pedagogy.

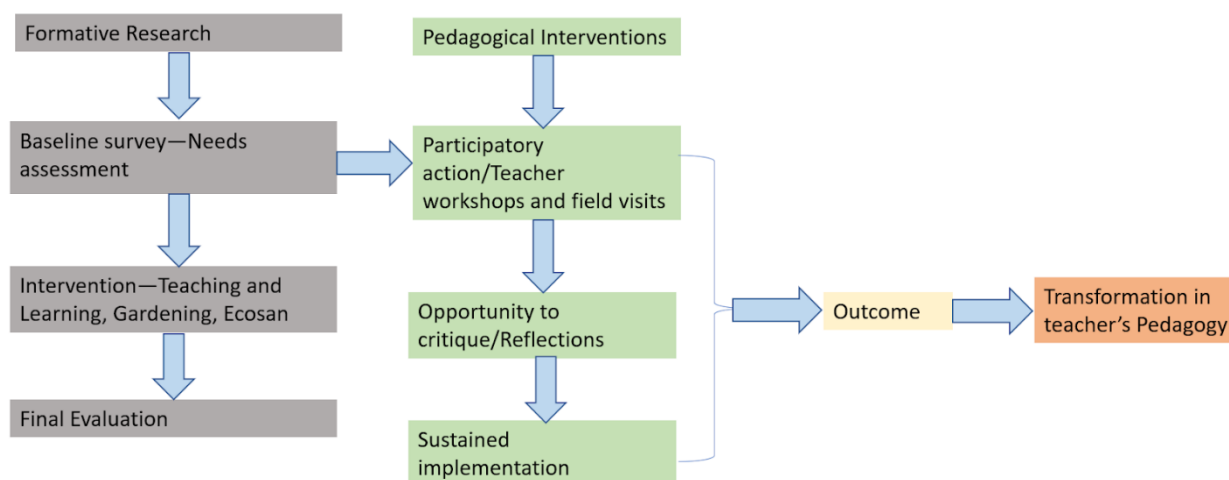


Figure 1: Rupantaran Project Overview

- **Planning.** The project has distinct goals. All the stakeholders were involved in participatory planning to achieve the project's goals. In a participatory planning process, the participants expressed their long-term goals and indicated the prerequisites for achieving those goals (Taplin & Clark, 2012).
- **Intervention.** Different interventions were carried out, with each intervention linked to the project's outcome, which was based on the needs assessments. As the project's users, implementors, and evaluators, different stakeholders were involved from planning of the interventions to implementation.
- **Observation.** Following the intervention, it was necessary to carefully observe how the interventions were being put into practice. Rupantaran found areas that needed improvement during the observation phase.
- **Reflection.** Reflection is an essential step of participatory action research. The project's review benefited from reflection. Reflecting on one's action is crucial in participatory action research for instructors, students, and parents. The process of reflection also aids in internalizing the actions. The changes in instructors' pedagogy was also a result of their frequent reflection on their work.

Transformation as observed through an insider's perspective

When a baseline survey was conducted to find out the needs of the school, Rajbanshi, Dhungana and Luitel (2021) identified a few areas that needed interventions and they are i) professional development to improve the content and pedagogical knowledge, ii) contextualization of the curriculum and use of local resources as teaching-learning materials, iii) use of available technology to improve teaching and learning, iv) and connection of urine diversion toilet and garden with the curriculum. Along with interventions, a few other activities were conducted which emerged as the project progressed in the school.

ICT Skill Enhancement

Before the engagement of Rupantaran team in the school, only few teachers were proficient in using ICT. Some teachers acknowledged having a basic understanding of ICT at the beginning of the interactive investigation of the technology; however, the teachers displayed having poor self-efficacy and some even had trouble turning on the computer. These days, using technology in the classroom has become crucial due to widespread access to technology. Despite the availability of technology, if the teachers cannot utilize the technology, then the access to technology has no value.

Rupantaran identified ICT use was one of the needs of the teachers. Thus, intervention was done on ICT. Teachers got involved in professional development related to ICT. Some hardware were also provided by Rupantaran; however, the software or the ICT skill was equally

important for proper utilization of the available technology. Some researchers focused on providing ICT skills to teachers so that teachers could use technology effectively in class. After five years of intensive work by some researchers, there has been a remarkable improvement in teacher's ICT skills. The result of the workshops is that the teachers were able to conduct online classes for grade nine and ten during lockdown and teachers were also teaching via CUG (Closed User Group). Teaching and learning was possible through ICT during the difficult time of COVID. This was also school's contribution to the community at the time of pandemic. Along with these, during experiential sharing workshops, teachers showed astonishing skills on ICT. Teachers prepared PowerPoint slides and displayed them with confidence among their fellow teachers. Just to display PowerPoint, the teachers have to know many small things that are related to ICT skills and teachers were able to showcase them smoothly. Rajbanshi (2017) identified technology as the third side of the triangle or the link between the teacher's subject-matter expertise and the students through the tool with which students are familiar. This study also identified technology as a necessary tool to connect content matters with the students. These days, teachers regularly use the computer lab for teaching and learning purposes. Thus, technology brought transformation in teachers' pedagogy.

Contextualized Education

Contextualization of the curriculum has been a discourse in education for a long time. We tend to provide context-independent knowledge by giving content from textbooks without evaluating them to see if local knowledge is prioritized or not. Indigenous wisdom is taken for granted and is not highlighted. Instead, the textbook information is given greater weightage than indigenous wisdom, which results in the overlooking of our knowledge, culture, and language and emphasis on western knowledge. Contextualization of the curriculum is rarely found in the schools of Nepal. Recently, educators felt the current curriculum was inadequate for the newer generation. While changing the curriculum, our education got influenced by foreign or western concepts and we lost our originality. Contextualized education is now just a name that has been emphasized in the curriculum.

However, with the engagement of Rupantaran, teachers have started to emphasize on contextualized curriculum. The teachers have started giving project works to the students relating with the local context, thus emphasizing contextualized curriculum. Teachers have begun connecting classroom activities with gardening, ecosan, mushroom farming, goat farming etc, which are related with agriculture. Agriculture is one of the main occupations of the area. Thus, it can be confirmed that teachers' have taken the initiative to contextualize the curriculum. With the continuation of project work relating to garden-related activities, this project envisions the sustainability of contextualizing the curriculum.

Linking curriculum with Ecosan/Urine Diversion Toilet/Gardening/Mushroom Farming.

Ecosan/Urine diversion toilet, gardening, mushroom farming etc., are some of the activities that Rupantaran conducted in the school. Linking gardening, ecosan, mushroom farming etc., with the curriculum, is difficult for those teachers who consider textbooks as sole information providers. However, these days, the teachers regularly take the students to the garden connecting garden activities with the current curriculum. Figure 1 is an example of how one of the researchers conducted action research with the school teachers.

MUSHROOM CULTIVATION AND ITS RELATION TO SUBJECTS	
1. Relation to Mathematics <ul style="list-style-type: none"> ● Profit and Loss ● Income and expenses ● Data Analysis ● Conversion (Market Rates) ● Area ● Unitary (If 200 g cost Rs 20, how much will 1000 g cost?) ● Averages ● Operations (Addition, Subtraction, Multiplication, Division) 	2. Relation to Science <ul style="list-style-type: none"> ● Renewal and non-renewal ● Parasites (Dead or Alive) ● Plants and Animals ● Chlorophyll ● Survey ● The pH value of Gypsum, and why Formalin is added ● Fermentation ● The discovery of penicillin, etc. ● Temperature measurement ● Heat ● Instruments ● Unit of measurement ● Conversion between deg Centigrade and deg Fahrenheit
3. Relation to Geography <ul style="list-style-type: none"> ● Weather and Climate ● Temperature ● From where is Gypsum obtained? 	4. Relation to History <ul style="list-style-type: none"> ● What could the origin of mushrooms be? ● The history of mushrooms ● Food and Drink
5. Relation to Language <ul style="list-style-type: none"> ● Listening ● Speaking ● Writing ● Reading ● Questioning 	6. Food and Nutrition
7. Marketing and Packaging	8. Career and Employment - Any person (male or female) can do this work, either individually or in a group. Not much investment is necessary, and it can be started with very little expense, and still gain profits.

Source: Lama (in press)

Through professional development, there has been a change in teachers' pedagogy. Many teachers implemented project-based learning in the classroom, and the students gained knowledge through the community while being involved in project-based learning.

STEAM Pedagogy

In the beginning, teachers were not aware of STEAM pedagogy and were hesitant to use STEAM pedagogy. STEAM was a foreign concept and using STEAM pedagogy was beyond teacher's thinking. STEAM enhances students' 21st skills. STEAM is a cutting-edge approach that can help students have life-changing educational experiences (Rajbanshi & Dhungana, 2020). By incorporating the arts into STEM, transforming learning encourages students to consider their underlying assumptions (Taylor, & Taylor, 2019). By actively participating in their own learning, the learners will be able to create concepts using a transdisciplinary method through STEAM pedagogy.

During workshops, the teachers gained knowledge on how to use STEAM pedagogy in the classroom. Now the headteacher envisions making the school STEAM-based school in the near future. The school has STEAM lab/maker's space that the students can use to enhance their skills. The teachers can easily use integrated approach of teaching and learning, which is one of the essences of STEAM approach. The project work that they prepared for their classroom shows integration of STEAM/integrated approach. With the internalization of the STEAM pedagogy, the transformation that happened in the teachers' pedagogy is sustained for life long.

Conclusion

In conclusion, working together in participatory approach brings change in not only researcher's perspectives but also in teachers through a variety of ways. This study shows that there has been some transformation in teachers which are enhancement of ICT skill in the teachers; use of STEAM pedagogy in the classroom through project-based learning approach. The teachers have started contextualizing the curriculum depending on the need. Transformation is not possible, if the teachers do not participate fully from their heart to bring transformation in themselves and

participatory action research results in empowerment of the participants. Furthermore, internalization of transformation with sustained participation in this project has brought sustained transformation in the teachers.

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A case Study of out of School Children in Madhesh Pradesh of Nepal

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Abstract

The paper aligned with the conference theme of education and research for the common good. The paper explores the complex phenomenon of out of school youth and children and possible risks on public education space. Such risks have been expanding even after the emphasis of the government initiation. The paper usages the transformative case study in Madhesh Pradesh to uncover the risks and adversities of the children and their learning in school and ways of mitigating such risk in the ecology of school and society. The study listed three main findings: The school attendance system from register to head count, The school and community culture of school going and role of initiatives in retention and enrollment. These risks are complex in nature thus the complex system reformation helps to address these problems. The research is important to reform public education in the Madhesh Pradesh of Nepal.

Keywords: Out of school Children (OOSC), dropout, access, national data, education, Nepal

Introduction

One of the main obstacles in accomplishing schooling and attaining proper education in developing nations is high absenteeism and dropout rates (Roy & Sharma, 2019). Nepal's national literacy rate has improved by 10.64% over the past 70 years, rising by 11.27% for men and 8.09% for women in each decadal census year. Despite a rise in reading rates, kids still leave school without graduating (Pokharel, 2022).

According to (CEHRD, 2021) primary level (grades 1-5) student dropout rate in 2020-21 is 3.5% and the dropout rate for lower secondary level has fallen from 4.4% to 3.5%. Despite the national level data showing the dropout rate to be minimal, there exists parallel data articulating that dropout is one of the major challenges of the education sector in Nepal. According to the government's economic survey report, which was released on 28 May 2021, 36 of the 100 kids enrolled in grade one dropout by the time they are in grade ten (Ghimire, 2021). 770,000 children aged 5-12 years are still out of school in Nepal (UNICEF Nepal, 2017). The government does not have reliable national-level data of school attendance, and depends upon the school attendance registers maintained by the school for the allocation of budgets of school amenities and school meals. Reports from Auditor General, 2078 suggest that the school attendance data are misleading and do not represent the real scenario.

Children of school going age remaining out of school and the ones that are enrolled dropping out from schools is an issue that everyone should be concerned about because proper education can help a child as they grow up in developing stronger reasoning capacity, make themselves capable of earning more money, become more independent, get less likely to engage in criminal activity, become more likely to pay taxes, and get more likely to participate in national level elections as a loyal citizen (Rumberger, 2008). So this study aims to investigate the actual scenario of school enrollment and attendance with data from concerned stakeholders as well as the students themselves.

Objectives of the Study

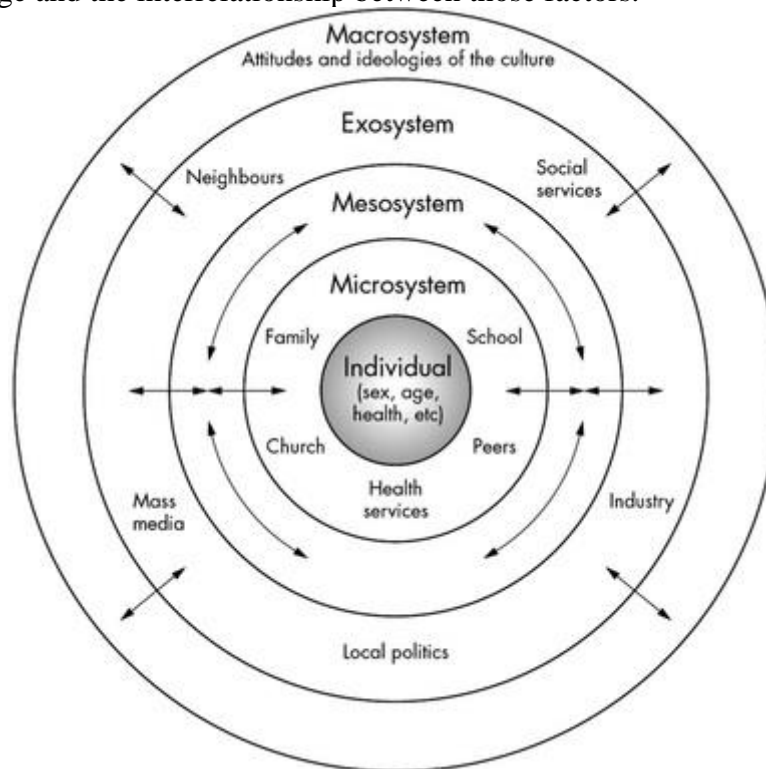
- a. To explore the practices of enrollment and attending schools by children of school going age
- b. To know the perspective of parents on education, schooling and school regularity

- c. To figure out what efforts are being made by the local government to reduce dropouts and bring out of school children back to school

Theoretical underpinnings

The study draws from Ecological systems theory (also called development in context or human ecology theory) developed by Urie Bronfenbrenner. This theory will be used as a theoretical base for this research. It offers a framework through which individuals' relationships within communities and the wider society is examined which influence their behavior (Ettetal & Mahoney, 2017). It identifies five environmental systems with which an individual interacts (Darling, 2007).

Similarly, this study also wants to examine how a child develops in connection to the network of relationships that make up his or her environment. As suggested by this theory the child's growth is driven and guided by the interaction of elements in the surrounding he or she is growing; his immediate family and community, and the social environment and changes in one layer will have an impact on all the others. Hence, using this theory as a base the researchers want to pay attention to the multiple factors influencing the school going behaviors in children of school going age and the interrelationship between those factors.



Contextualizing Ecological systems theory

As the study revolves around the students' school enrollment and school going pattern they are at the center of the circle. The children are aged between 6 years and 15 years, who are of official school going age at basic level. The individual characteristics such as disability, motivation, aspiration, fear of bullying, role models etc. plays a part in his/her school going behavior.

1. **Microsystem:** Refers to the institutions and groups that most immediately and directly impact the individual's development including: family, friends, other school going children of the community, School and its amenities, religious institutions, neighborhood, and elders in the community. The impact of connections at this level can be felt both toward the child and also from the child.

2. **Mesosystem:** Consists of interconnections between the microsystems, for example between the family and teachers or between the child's peers and the family. In our study it is important to consider the relationship between the family and the school. It is important to understand how each of them perceive one another.
3. **Exosystem:** Involves links between social settings that do not involve the child. For example, a child's experience at home may be influenced by their parent's experiences at work. In our study, it is important to understand the income earning activities as well as the daily routine of parents and children.
4. **Macrosystem:** Describes the overarching culture that influences the developing child, as well as the microsystems and mesosystems embedded in those cultures. Understanding the school going culture, historical concept of education and its value to the locals is crucial for this study.
5. **Chronosystem:** This system contains elements that can either be internal, like the physiological changes arising from a child's aging, or external, like the timing of a parent's death. As kids get older, they might respond to environmental changes differently and possibly be better able to predict how those changes will affect them. The current federalism and decentralization of the education system has its impact on schooling and more particularly on the management of community schools. Consideration of these various dimensions of the current education system will be helpful for the research.

Methodology

Research Paradigm

The methodology is seen as a philosophical/ theoretical bridge that connects research problems with the research method. Hence to address this stance the following ontological, epistemological and axiological dimensions are taken into consideration. The philosophical position relies on the non-positivistic research paradigm and further shapes belief and action of research with the paradigm of interpretivism.

In the relation to ontology, there exist realities in multiple forms of mental construction the participants hold (Guba as cited in Lincoln, Lynham & Guba 2011). The findings are true to the experience and beliefs of participants on education, its access and delivery. The research problem is addressed assuming that education participation is contextual (time, space and intentionality) . This study tries to construct knowledge based on observation and experience shared by parents, education providers, students and education officials at local government.

The epistemological paradigm is generated through interaction, continuity, situation enacted with people and their experiences (Creswell, 2016). It is believed that participants wholly or partially construct social meaning of the phenomena of educational participation in the community schools on the basis of interpretive processes, and they may have the ability to tell about these constructions and offer their own explanation. The study is value-laden, and hence the values of researchers have been openly discussed with participants that have shaped the narratives of the participants. According to stake (1995), “direct interpretation of the case comes under two strategic ways through which researchers reach new meanings about cases. They are through direct interpretation of the individual instance and through the aggregation of instances until something can be said about them as a class” (p.74). In this study, the school enrollment method and the pattern of attendance could be generalized by combining the cases to give the complete picture of access to basic education and improvement.

Research Approach and Design

Within the broader framework of interpretivism, a Qualitative case study approach is adopted, an in-depth inquiry that investigates a contemporary phenomenon within its real-life context. Case study is not just a research strategy, but also a method to analyze and examine qualitative content (Kohlbacher, 2006).

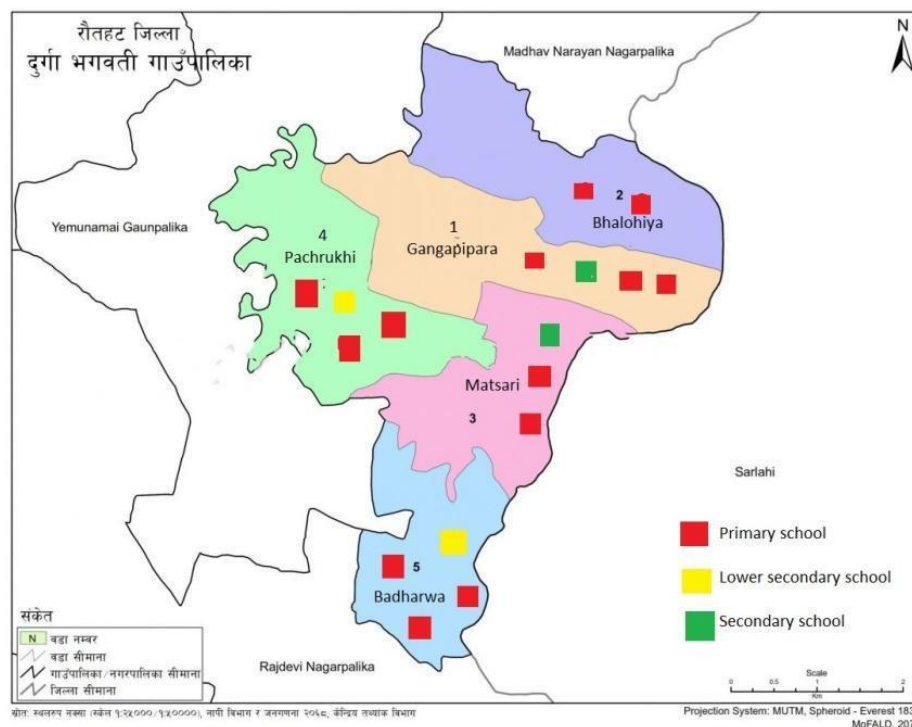
Stake (1995) suggests preparing a plan of the generation of field texts which should include definition of case, list of research questions, identification of helpers, sources of information, allocation of time, expenses and intended reporting. As for the approaches to the generation of field text, Stake suggests the use of observation, interview and document review in qualitative case study research.

The first research question is about the exploration of the current practices of enrollment and school attendance of students at basic level. This was carried out based on Stake (1995) suggestion of categorical aggregation and direct interpretation. According to Kolchbacher (2006), researchers constantly compare theory and information iterating towards theory which closely fits the information. The Ecological systems theory guides the further research questions on identifying the role of microsystem (Parents) and Mesosystem (local government).

Research Site

The data published in a report called Literacy status in Nepal published by (UNESCO, 2013) presents that the least literate district in Nepal is Rautahat. This created an interest to consider Rautahat for the research. Hence, judgmental sampling was used to consider Rautahat for study. There are more than 20 municipalities in Rautahat, out of which Durga Bhagwati Rural municipality was selected for the study. The issue of OOSC was assumed to be more severe in rural municipalities compared to Municipalities. There are two rural municipalities in Rautahat. Out of the 2 rural municipalities, Yamunamai has an advantage over Durga Bhagwati in terms of its geographical location, therefore Durga Bhagwati was considered for our study.

Durga Bhagwati Rural municipality lies on the western bank of Bagmati River (Fig. 1). It has; 2 secondary schools, 2 lower secondary schools, 12 Primary schools and 1 Madarasha.



Population

After the first round of interviews with some of the school dropout children, six cases were selected. Thus, these six cases are the representative cases of the research site which shows various triggers of the school dropout decision, the dropping out process, and the destination of school dropouts. Moreover, they all had unique and thematic-wise representative OOSC stories

reflecting the situations in the community. Here, the primary purpose of selecting the cases for qualitative research was to clarify and deepen the understanding of the OOSC phenomenon rather than making the samples representative.

In-depth interviews were carried out basically with those selected school dropout children and their parents along with observation of their everyday activities. In addition to this, group discussions were also conducted with other community people such as teachers, head teacher and local key informants including the in-school children. The purpose of interaction with other stakeholders was basically to understand the issue from different perspectives and also to triangulate the experience of those children and parents.

Findings and Discussion

Key findings have been thematically presented as follows.

Theme 1: The school attendance system from register to head count

During the researchers' interaction with headteachers it was known that most of the schools have two registers maintained. One to submit for the electronic management information system (EMIS) and government level, and another to keep attendance records of children who actually come to school. This means the data in the government system may not be able to depict the real situation.

Theme 2: The culture of school going

In all of the schools the researchers visited, students' absenteeism seemed to be the most significant problem. It could be a newer form of dropout because the students enroll in school but only attend on days schools are distributing one or the other things or cash for scholarship and mid-day meals. Rest of the days they are out of school.

The school teachers do not teach anything properly, my son is already 8 years old and still doesn't recognize and write alphabets and numbers. They collect money and other things in our name and make excuses to not give it to us. This year I fought with the school team and got my share of resources but I will not send my children to school. If they go to school neither they or I will gain anything but if they stay at home, they can help me a lot. (Interview, Parent)

Moreover, there are also some children who appear at school only during examinations.

The schools have been instructed to practice liberal promotional policy which means that the government doesn't restrict a student from getting promoted to next class regardless of what his attendance and academic achievement is. If they are enrolled in school and attend the examination they will get promoted to the next class. (Interview, Headteacher)

The students in most of the schools too seem to be very frustrated with the school management and teachers' behavior.

The Nepali and Social Studies teacher is always watching movies and serial in mobile phone. If we ask anything he will hit us with a stick and tell us not to disturb him. Only if the school has good teachers and a computer lab and computer class everyday I will come to school otherwise just to waste my time and get beaten up by teachers no one will come. (FGD, Grade 6 student)

It was understood that students wanted to come to school and learn but they are not happy with what the schools are offering to them. They think if they can learn English and computers they will come to school otherwise they won't.

Whether we complete school or not ultimately we are going abroad, we are not getting any jobs here, so most of us go to India or Kathmandu to learn different skills when we have holidays, sometime we miss schools for months also, but it does not matter because the syllabus is not properly covered by teachers. The teachers do not teach properly in school but take tuition classes after school and charge tuition fees and there only they will teach properly. (FGD, Grade 6, 7, & 8 students)

Theme 3: Role of Initiatives in Retention and Enrollment

Sixty percent of the schools have stressed that mid-day meals provided to students have played an important role in retention of students. Some schools have also considered enrolment campaigns to be very effective in reducing dropout rates in school. Other than these, distribution of school dress and stationaries from time to time by different donors also encourage the children to come to school.

Instead of only relying on different programs from other organizations, the school has been taking initiatives on their own in coordination with the Provincial government and Education Section. They enroll school dropouts aged 14 and above for different vocational training and provide after school support to weak primary students. (Interview, Principal)

Principals outline that dropout is not a pressing problem but the absent rate of students is.

Dropout was a problem 5-10 years back but not today. Dropout rate must be tentatively 2-3% or only 0-2 in average in a class. However, being absent frequently and also for a very long period of time is a problem. Young children approximately from 6-7 years of age are engaged by parents in household chores, agricultural activities, and used for selling different products during important festivals. Support classes are run by the school targeted at weak students so that they don't discontinue their studies. (FGD, Principals)

Hence, in schools of Durga Bhagwati Rural municipality, we could witness a newer tendency which is different from what we at present understand as dropout and absenteeism. The students here are somewhere in between dropout and absenteeism. Neither have they completely left school and its association nor do they attend schools properly.

Conclusion and Recommendation

So, it can be concluded from the evidence that school enrollment data (of the government) cannot represent the school going behavior of the students, instead their daily attendance in school is a stronger indicator for the same.

The head teachers were aware of different shortcomings in their school; be it the school infrastructure and facilities, or the administration, or the insufficiency of human resources and their skills, capacity, and techniques; and therefore, they also consider these limitations to be the cause of students' persistent nonattendance. Apart from these inadequacies, there were different societal issues such as; involvement of children in domestic work during school hours, participation in cultural and religious events considered more important than attending classes and likewise. Such factors have contributed in establishing absenteeism as a social norm. One of the foremost issues that was uncovered during the study was that, more than dropout, absenteeism of students is the pressing issue faced by the primary level schools.

Nepal evidently, has many barriers for children in attaining schools, some of which are; poverty, social exclusion linked to caste/ethnicity, disability, child labor, trafficking, gender biases, child marriage, supply constraints in terms of school infrastructure, resources, and staffing, difficult land terrain, Nepali language still being a second language in many communities making learning challenging, mostly in settlements in disaster prone areas, and governance and financial bottlenecks (Government of Nepal, UNESCO, & United Nations Children's Fund, 2016).

Hence, many more researches should be conducted targeting to contribute to development of education at all three tiers of government (local, provincial and central). So that a better and a deeper picture of the phenomenon of dropping out and children of school going age remaining out of school is obtained.

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Experiencing Identity Change through the Transformative Sensibilities

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Abstract

This extract of the paper explores about my journey of identity change through the transformational processes. My voyage started as a mathematics student and reached up to the level of a professional through different steps involved in different institutions. In my professional career, I was highly guided by conventional teaching as well as a behaviorism learning theory. Now as a doctoral student, I am searching for a transformative learning pathway as an identity change. As per my experience as a teacher, teacher educator there is a constant leap and refinement in pedagogy through knowledge. Interpretive, critical, and postmodern research paradigms endorse research design. Subscribing autoethnography inquiry as an emergent methodology, I have linked transformative learning and identity theory (Illeris, 2014). The main discussion in this paper is about my identity, teaching pedagogy, sustainability and its change with value, belief, and assumption which guides transformative learning and sustainable future. The different phase in my journey has continuously transformed and is still transforming my identity as to who I stand now.

Keywords: Conventional method, pedagogical change, transformative learning, identity change.

Setting the Scene

It was the festive time of Nepali culture in October. All the people were celebrating the festival, but our family, on that occasion, was welcoming a new baby girl. From the day I stepped onto the earth and opened my eyes I started sensing my identity with conscious and unconscious small experiences of my life. During that time, it was a great challenge for a female to receive education and pave way to a higher education. Female students couldn't imagine studying and pursuing the subject of mathematics in their life. It was an uphill battle for a female to create their identity in mathematics education. Despite of this scenario, I struggled a lot and finished master's degree in mathematics education itself. After passing master's degree, I started my teaching career as a mathematics teacher. This was a breakthrough for me as a female professional in mathematics, both as a teacher and teacher educator.

In my teaching profession, I was considered to be a good mathematics teacher based on my students' evaluation but I was not professionally satisfied with my teaching. My skill was only limited to techniques learned through my teachers and what I learned during my student life. I was under the domination of the highly teacher-centered and one-size-fits-all nature of teaching pedagogy. As a teacher, I also followed the traditional perspectives just like Habermas' technical interest (Habermas, 1972). Mascolo (2009) explains traditional teacher-centered pedagogy as a style of teaching where the teachers assume themselves as a primary responsibility for the communication of knowledge to students from their point of view. So, I was not able change my values, beliefs and assumptions. After that I began to question myself, Is my teaching only used in a conventional way about making students memorize formula or

about solving problems? Can this teaching approach fulfill the demand of 21st century skill for the students? (Beers, 2011). This question ran through my mind. I constantly questioned myself whether my identity was limited to use only as an informative teacher or if I would be able to proceed as a transformative teacher. Likewise, I as a researcher started challenging and questioning my own values, beliefs, and assumptions which will put forward the transformational learning process and identity change. Then, I burst out searching for my identity change and ways to develop and transform myself professionally as a transformative teacher. In this scenario, the aim of this paper is to explore how I have been experiencing identity change through transformation sensibilities for sustainability.

Theoretical Lenses

I preferred referencing Illeris' (2014) as theoretical lenses as it has focused on transformative learning and identity. Transformative learning is learning linked with change in the identity of the learner (Illeris, 2014 as cited in Jordan, 2020). It explains learning process of constructing, appropriating new and revised interpretations of the meaning of an experience in the world (Taylor, 20116). It describes how our expectations which are framed within cultural assumptions and presuppositions directly influence the meaning we derive from our own experiences (Dirkx, 1998). Similarly, me being a mathematics professional, from critiquing and questioning my value and belief system, identity change starts from my professional life and continues towards travelling my journey and moving towards my profession to establish as an empowered teacher. In this journey, gradually my identity moves and evolves step by step. The transformative learning and identity theory will prove to be helpful for me to make sense of professional experiences with the world from the subjective perspectives.

Transformational Journey in Mathematics Pedagogy

After many years, my professional life started to feel monotonous as I was teaching with same kind of pedagogy and living the same routine. Then, in order to advance my studies and to take a drastic change and transformation in my professional life, I joined Kathmandu University. That was the turning point of my professional life. The system of teaching learning was different from other universities. As it is said in every difficulty there lies opportunity, those new and tough coursework shaped my knowledge level. Along with the toughness, the coursework enhanced my creativity. It was a real eye opener and an educational catharsis for me in many ways. From all the tasks, I learned many lessons which included refining my teaching pedagogy as well. After that, as a mathematics teacher I started to change myself from different notch. Taylor & Taylor, (2019) explain that transformative approach is such pedagogical practice which engages the students in reflecting critically on the presuppositions underpinning their values and beliefs. This transformative learning articulated in various ways for much of the 21th century skill to address the need of developing student's multi- disciplinary abilities for engaging as future citizens in sustainable development debates, decision-making and practices through the design of STEAM teaching and learning approaches.

Now as a doctoral student, I critically analyzed my values, beliefs, assumptions that slowly started changing which impacted my teaching and professional development. I gradually realized that my pedagogical practice was teacher centric and I had to transform it to student centric. Then, I started listening to students' views, opinions, analyzing students' level of understanding and encouraging them to work collaboratively. I began to link mathematics with relevant socio-cultural practices and real-world problem. As classroom is the mediator of the culture and society, so the whole mathematics classroom environment constitutes a micro-community in which learning takes place (Chaviaris & Kafoussi, 2010). From this type of teaching learning process, students were motivated and encouraged. Furthermore, these activities gradually stepped forward to enhance my pedagogical knowledge, update my profession and achieve change in my teacher practice or professional practice. Likewise, this critical paradigm has enabled me to develop critical self-awareness, understanding and meaning

making of my world which is developed with experiences of mathematics teaching-learning (Luitel, 2019). I am a conventional teacher and follow the same style of teaching as my teachers. However, I do not want to become a teacher who is just confined to the same trends of teaching learning history; I want to be a teacher who brings about holistic and transformative dimensions. This desire has guided me to apply the path of criticality for sustainability. The critical researcher stands out to be a change agent and guides society to a path which is enriched with sustainability, equity, and fairness (Taylor & Medina, 2011). It is giving me an opportunity to improve my pedagogical practice for a sustainable future in teaching learning.

Changing Journey of identity in mathematics pedagogy

The sweet and bitter phase of my professional journey had been bringing about my identity construction as a mathematics teacher. Here, I am continuously filling up only one pedagogical colour to facilitate student learning. This form of traditional colour of the routine continues serving the student. Can I facilitate the student well in my one colour? I questioned myself. How can I develop myself professionally and change my identity? This question made me internally unrest, burning my heart. At that instant, I realized that this traditional pedagogical colour needs to change and improve and filled up with different transformative colours.

It was around 8:30 on a gloomy morning in the month of June. It was my last period of teaching mathematics in the morning. I entered the classroom full of students. It was so noisy like a fish market. I started saying, "Good Morning Class. How are you all? Did you do your homework? If you haven't done, do you have any problems with your homework? If there are problems then I will solve them." The students were silent, no one uttered a word. Then I planned to make a scenario. I started with a question by writing on the whiteboard. "In any rectangle, one side is 4 cm and another side is 3 cm, what is the area of the rectangle?" All of the students answered in a loud voice, 12 cm square. I asked one of the students named Kamal. "Kamal, please tell me how can you find 12 square cm?" Kamal answered, "Length equal to 4 cm and breadth equal to 3 cm then the area of the rectangle is found by multiplying the length by breadth so the area 4cm x 3cm is equal to 12 cm square."

Me: How did you know that multiplying length x breadth is the only way to find the area of rectangle?

The students had no answer. They were looking at each other with a surprise. Maybe they thought what a ridiculous question the teacher is asking. In the meantime, there was a student to break the silence. Among them one of the students addressed that sir taught them to learn the formula, set of rules, and procedures that can be used to solve the problems in mathematics, but didn't describe about how the formula came into existence. I nodded my head then I turned towards the white board and started to draw rectangle, write the steps from which area of rectangle was derived. Seeing this process of connecting arithmetic, algebra and geometry, the students were surprised. Likewise, the students were so happy to know the theory behind the formula.

So, over the years, when I enter the domain of my classroom, I have started using many colors to facilitate student learning. I want my students to get a different experience in learning from my class. Not only me, I have been involving students to participate equally and use different pedagogical colours. This collaborative teaching experience change in behavior and identity. Baldwin (2019) explains that from our experience, fundamental shift in the sense of our identity that focuses on the way of being in the world can take place. A journey that takes through worlds and experiences challenges beliefs as well as expectations thus bringing any individual to new thresholds of understanding (Kimaliro, 2015). These all happenings guided me towards a paradigm shift in my way of dealing with people, situation, and forms of knowledge in order to construct my identity as a mathematics teacher struggling to take my identity transformation to make a difference in the society. In this regard, Colliander (2019)

argues that professional teacher identity is transformed from the teachers' actions and the position they have negotiated in and between different communities in the landscape of occupation. It leads to a shift in the regime of competence in the teaching practice and other professional communities to which the teacher belongs. From this, I came to realize where I was and where I am supposed to be. These different colours of pedagogy shaped me and made who I am now.

Concluding Remarks

In conclusion, I being a PhD student am a university mathematics professional as well. I was raised with a traditional teacher-centric approach and started my career as a mathematics professional with a similar approach. Now, I have realized that my perception in teaching mathematics has gradually changed. I have started mixing different colours of learning perspective in pedagogy. My new efforts to change pedagogy includes STEAM approach, group discussion, classroom collaboration, teaching material enhancement and use of technology. These are my present efforts whereas, in the near future, I am planning to go ahead with transformative learning perspective in my pedagogy with a new fragrance that includes transforming myself as well as my students. Thus, with a sense of transformation, I am planning to deal with my present so as to make a sensible transformation to my future identity. This paper lands with an implication that transformational process and identity are interrelated for bringing a change in a person from individual to societal level. This paper is the story of my journey of identity, teaching pedagogy and its change as a mathematics teacher educator which guides transformative learning. It can serve as a vehicle to mathematics teachers who are in search of methods of examining and improving their teaching in an increasing era of accountability and a call for change in mathematics teaching practices. The critical paradigm in the research is a change agent for guiding transformational education with a motive of sustainable future.

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School Leaders' Experiences and Practices of Recognizing and Motivating High-performing Employees

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Abstract

Leaders are the change-makers and are to motivate, guide, and recognize every employee of the organization for organizational efficacy and higher productivity. Leaders' recognition of their employee's performance enhances motivation for higher productivity. The qualitative research presented in this report showcases how school leaders motivate and recognize high-performing employees. The data were gathered from in-depth interviews with four school leaders with more than a decade-long experience leading schools. The data were analyzed thematically and were presented as themes that emerged inductively. The results showed four major strategies that leaders used to motivate employees: (1) Sharing the load: and assigning some responsibilities; (2) Strategic rewarding culture. (3) praise and (4) financial support. The findings imply that school leaders' willingness to recognize the performance of their employees and reward systems for motivation can contribute to schools' overall performance and can help them to have a reflection in them and adopt the new practice for transforming journey.

Keywords: leadership, high performers, recognition, thematic analysis, organizational productivity

Introduction

Since we are closely observing the teaching profession and aware of the practices, mainly what is being done to motivate employees/teachers when they are found to be doing something contributing to the institution. Once the school came up with Research and Development projects, it was done in a group. Members of the group, where we were members had a wide range of abilities. High performers of the group came up with special projects, beyond the expectation of the organization, and became very frustrated when we got the same incentives as the other team members who couldn't perform well.

That incident increased the frustration, our members reached the authority, but no concern was shown. Seeing this dropped level of enthusiasm in us and no action taken by the responsible authority towards our reporting, we got stuck. Since then, I was interested in understanding whether the leaders can address this issue to keep the high-performers motivated. In this twenty-first century, leading schools and organizations need special focus and leading needs some extra potential. A leader is to win the heart of employees and have recognition for those who perform better. Leaders are those who are determined to bring changes in the organization or system by transforming themselves and recognizing employees (Harris et al., 2014). Organizations and schools globally are facing a future of slow growth coupled with a significant demographic shift as many boomers reach retirement age (Bérard, 2013). The fact might be that leaders are lacking some talents they need to have to lead effectively and motivate high-performing employees.

It is for this reason that many organizations now face an increasing shortage of leadership talent (Bartol & Zhang, 2007; Vardiman et al., 2006). Not only that, to lead an organization one needs to be exemplary so that s/he can be a good leader and can win the heart of employees. In this regard, Chen et al. (2018) assert organizational performance in the real sense is the change of inputs into outputs through achieving specific outcomes. Besides this

honoring the good performers are mandatory to shine on the leadership as high performers sustain higher efficacy if motivated (Sasala, 2014).

High performers are defined as individuals that are driven, passionate, and who make contributions vital to the organization's success (Morgan, 2008). Research proved that there are many obstacles faced by high performers and 55% are supposed to quit in the first year of their job (Jayatilake et al., 2020).

. Different ways of motivating employees have been explored but how the leaders are motivating and recognizing high-performing employees for high productivity using this method has not been widely explored. It means that the need to conduct research in our context is still a potential area to be explored. Therefore, this research explores school leaders' experiences in motivating and recognizing high-performing employees.

Literature Review

When high performers are left behind in educational organizations such as schools, there emerges a demotivation for better performance in the future. Likewise, high performers are the treasures of the organizations, so they are to be valued (Davenport et al., 2010). To keep other employees motivated and to have speedy efficacy, honoring high performers and avoidance of less committed employees' influence in obtaining reward and motivation in the school system should be the prime responsibility of the organization (Thorton, 2007). Likewise, a leader is the one responsible for recognizing and motivating the employees to work and to motivate them for higher performance in the organization as asserted by (Knies et al., 2016). A major chunk of the daily conversation on leadership significantly impacts performance (Knies et al., 2016). So, a leader is to motivate the employees without biases and preferences. If the employer is not able to create an atmosphere encouraging high performers, it will be difficult to have them work in the best interest of the organization (Marisola, 2018). What is being done by school leaders of Nepal to keeping the high-level motivation of top-performing teachers is still lacking while visiting the literature. So, I am motivated to explore this as there is no such literature to address our queries.

The present study explored how school leaders are motivating high-performing employees for organizational efficacy and better performance and productivity as previous research has intended to focus on the other areas to motivate employees only like to know high performer attitudes (Cepin, 2013). An urgent and important, and yet unanswered, the query was how school leaders are motivating high-performing employees and how it's beneficial in increasing organizational efficacy.

Theoretical Underpinning

Distributive leadership is a multi-dimensional concept, as per McInerney (2003 as cited in Zepke, 2007). Distributing leadership roles among teachers has been proven to be useful in minimizing as well as reducing the workload of headteachers. Bold (2007) found it a bit different from other theories of leadership as of its distributed cognition, and human cognition and knowledge do not confine to one person only and human knowledge and cognition are not confined to the individual but are finding space amid the networks of actors, artifacts as well as circumstances (Spillane et al., 2000). *Grin* (2002) has two distinct meanings of distributive leadership that are holistic practice and shared responsibility for better productivity in the organization. A leader creates other subordinates equally for better productivity in the organization. So, my research has stood on this theory. By sharing the load to motivate high performers organizational efficacy also can be enhanced and contentment also will increase among teachers.

Materials and Methods

Participants and data collection

I adopted purposeful sampling as its widely used technique in qualitative research mainly in those cases where most likely to be information-rich on the point of interest (Patton, 2002). All

participants were over the age of 30 and I took two males and two females both from public and private schools, two were from Kathmandu and the other two were from Pokhara for rich data an email was sent to potential principals requesting to take part in interviews. They participated spontaneously. The goal of the study was to gain a depth of understanding of the point of interest (i.e., participants' experience of motivating and recognizing high-performing employees for organizational efficacy and better performance). The interviews were conducted through the zoom platform and face-to-face mode.

Interview Process

Participant interviews occurred in their convenient place with prearranged and mutually fixed schedules using semi-structured interview questions based on the research question.

Data Analysis

The data were analyzed thematically (Braun & Clarke, 2006). It demanded the transcription of interview recordings followed by coding. Initially, I read and re-read transcripts for generating potential themes, and I did the second level of analysis by reviewing the codes made initially. Subthemes were generated from the major themes and thoughts and worked on creating sub-themes being stuck to the research question of how leaders are motivating high-performing teachers and employees for higher efficacy and performance in the organization. The cohesion and coherence of the theme are maintained and reviewed before the final analysis.

Findings

Workload Management and Assigning responsibilities

Leaders reported that they are sharing the load to motivate high-performing leaders like assigning some event responsibilities and asking them to coordinate some internal programs. Illustrative extracts appear below.

One participant stated:

Amon: I like to create co-leaders, I assign them some events responsibilities like fellowship program, and welcoming events to newcomers and visitors."

Participants highlighted that they can motivate the employees further and can have higher satisfaction as they are performing well and it's their responsibility to let them have self-motivation and reflection on their work. They also revealed that sharing the load with subordinates has made them a true and transformed leader.

Jonathan says: I am finding my version, me in the past and present have changed abilities, none side I have a fusion of transformation in another side I could keep my high performing employee happy.

Strategic Rewarding

The second theme is strategic rewarding. In their accounts, most leaders highlighted the strategic rewarding cultures for motivating high performers in the organization.

Colly: "I have the staff of the months and staff of the year strategies, which is the right option to award and recognize the worth of my high-performing employees."

Leaders stressed their strategic mechanism to recognize the high-performing employees and revealed that such strategic options work much and set the way for better performance in the forthcoming days.

Jonathan: "I see it differently. I do have plans for special staff development programs. sometimes if they perform well, I send them for fellowship projects abroad among those who perform better."

Praise

Leaders frequently praised the performance of teachers using soft words, which they used as one of the strategies for appreciation of the work done by high performers. This strategy was used for recognizing their work on an occasional basis.

Colly: *“I simply smile at them, praise them they might after they accomplish some tasks, and ask them to visit me in my free time as I have an open-door policy. I don’t make them feel low, I easily praise them by saying, you are doing great”.*

Participants realized that soft words worked.

Regarding it, Jonathan said:

“I once simply congratulated one of the English teachers for conducting a welcoming program with the best of his abilities of class eleven students in the staff meeting. The next day, he is found to be working so hard in other areas as well.”

Financial rewards

Many participants described the impact of monetary reward on high performers as it brings concrete results and is a great tool for ensuring longevity beyond other sorts of rewards, words, climate, and strategies in the workplace and could feel the transformation in them.

Missi: *“My employee’s demand is money that I can sense from reading their face and it might be because of their small business will be solved and it’s given in regular basis has good aspects than the annual star certificates, goshala /shawl/and all.”*

Amon *“It (monetary reward) has impacted my employees as my secretary is seen so much contented”*

In terms, of the direct impact of monetary rewards, all participants seemed positive and all are implementing it on their system and on a need basis.

Jonathan: *“I apply it in my school, especially to be fair to all. Yes, because when I use month star or annual star it will address only a few employees but when I allow certain increments in salary, a larger group who are performing can be covered.”*

Discussion

High performers often motivate other employees, which is beneficial to organizational output (Merisalo, 2018). Motivating and recognizing high performers in the organization is a key factor as high performers are there to influence and indirectly in the case of motivation, which has higher benefits in the organization. Recognition of the employees by the leaders is very essential even for perfect leadership practice as leaders are always to motivate the employees and it is one of the leadership qualities (Morgan, 2016). Merisalo (2018) adds that if high performance is not addressed, heard and recognized, and motivated there comes the situation of high turnover. Distributive leadership seeks collaboration at optimum and always offers holistic practices. Gronn (2002) has two distinct meanings of distributive leadership that are holistic practice and shared responsibility for better productivity in the organization. In this connection, the school leaders are found to be sharing the load to recognize high-performing employees and cocreating the leaders. The sampled leaders ‘practices in recognizing high performers via load sharing and assigning event responsibility were notably positive.

Specifically, the participants in our research reported that they are using praise words when they are found to be performing well as words were only found to be triggering ones to boost their confidence and further good performance. As it is also included in distributed leadership theory that what is done for the common good sounds great in an organization and if leaders are to recognize the worth of all has a higher essence Wenger (1998). This was found in the practices of leaders. Bradley et al., (2016) argue that the use of high rates of compliments increases the performance exclusively which is being done by the leaders.

There is a perfect match with our research question and the experiences of participants as outlined by distributive leadership theory which believes success is achieved through social interaction. Here leaders are also found to be aligned with having recognition and are going also for monetary rewards which aligns with the ideas of Palmer (2012) who believes productivity of the organization decreases as high performers are not much motivated to work in the organization. Sajjad et al. (2011) revealed in their study that financial rewards and employee motivation are two sides of the same coin and it’s found so in our context too. Bereket et al.

(2016) say that compliments are essential in high-performance motivation and recognition of employees. However, productivity at work decreases because of the absence of suitable incentives (Palmer, 2012). All our themes are found linked with the ideas of Purwanti et al., (2015) who believe there are different ways to make an organization productive. All making schools and organizations are productive with different measures of addressing employees (Koltin, 2013). entrusting other tasks to move to the next career level or further opportunity (Jolly, 2012) increased control. Likewise, our research shows the transformation in leaders from the reflection of their practices. They could find what works and what doesn't from reflecting on what they were practicing. Montuori & Donnelly 2018). The results of the current study have clear standpoints that high performers are to be motivated by different means, leaders are aware of it and it further has a bigger contribution to organizational productivity It can be related to their transformation from the authoritative leadership style to distributive leadership too.

Conclusion and Implications

Every leader is to recognize the potential, to influence and aspire to employees for higher productivity in the organization. Most importantly leaders use different ways of recognizing the high-performing employees with the possible resources and abilities they are provided and of the context and setting of their workplace particularly. Our leaders are found to be using different ways including praise, monetary rewards, and load sharing for it. These findings imply that current leaders and aspiring leaders need to adopt the findings for organizational efficacy as it is found working in our context. The findings show that there is the transformation of traditionally enhanced authoritative leadership into a distributive one.

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Self-Directed Professional Development Practices of Private Schools' Teachers in Nepal

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Abstract

Teacher professional development programs focus on instilling knowledge and skills in teachers. Almost 90 percent of government-funded community school teachers are trained and have the knowledge and skills required for their professional development. However, they have failed to transfer their knowledge and skills gained from the training to their classrooms. To this end, this paper reports on a study that explored private school teachers' self-directed professional development practices in Nepal. The study was conducted using narrative inquiry as a research method and self-determination theory as a theoretical lens. Using purposive sampling, two teachers from a private school based in Kathmandu, Nepal, were recruited and were interviewed using open-ended questions. The interviews were recorded, transcribed verbatim, and analyzed using an inductive method of qualitative data analysis. The study concluded that individual autonomy, leader support, and monthly sharing session were the key catalysts to motivating teachers toward self-directed teacher professional development practices. In addition, the attitude of listening to constructive feedback from peer shared classroom practices, and regular personal reflection has also contributed to self-directed teachers' development practices. From the lens of self-determination theory, it can be claimed that the feeling of being autonomous, competent, and relatedness change the attitude and intrinsically motivates teachers toward self-learning and self-growth.

Keywords: self-directed professional development, private school teachers, community school teachers, self-determination theory

Introduction

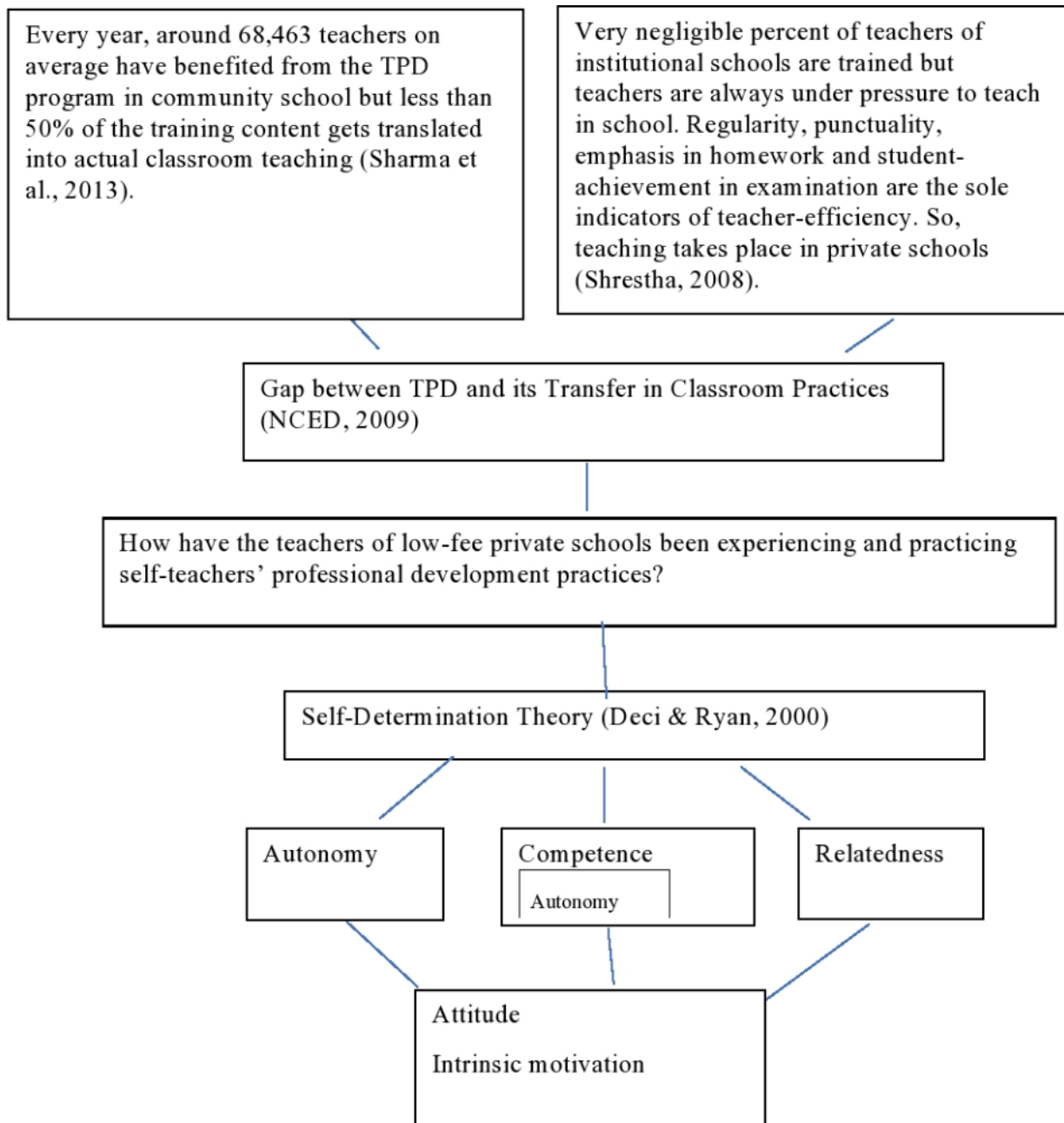
Realizing the importance of professional development in the context of the schools of Nepal, the formal training of teachers started in 1946 A.D. The Ministry of Education (MoE) provides financial support to teachers when they are deputed for training. It is claimed that nearly 90 percent of the teachers of government-funded schools have received adequate teacher training. Yet, the teachers have not been able to transfer their knowledge and skills into classroom practices (Subedi, 2006). In contrast, private schools' high school students demonstrated better academic performance in national level examinations administered by MoE than those in community schools (Sharma, 2012; Thapa, 2011). The teachers in private schools are always under pressure to maintain the academic performance of the students. Regularity, punctuality, emphasis on homework, and student achievement in the examinations are the sole indicators of teacher efficiency. Almost the reverse is true with community schools. Teacher accountability is almost absent in community schools. This is found to be the main reason why private school students score high on the external examination (Shrestha, 2008). This difference in student learning outcomes shows that the relationship between teachers' professional development and student learning outcome is questionable. This means professional training in teachers does not necessarily lead to improved academic achievements in students in the case of community schools in Nepal. This brings us to contemplate the reasons behind the low academic achievements in community schools despite the training given to the teachers.

Advertisements

If we search for the reason behind the ineffectiveness of professional development training in the community schools, we can find that the absence of the provision of knowing how the

trainees are doing in schools after the training period is over. It suggests that centralized teacher professional development (TPD) programs have less impact on their self-learning and self-growth. The report of MoE (2017) also showcased those non-participatory approaches have failed to support teachers to enhance their professional development. The participatory professional development approach is conceived as a professional co-learning opportunity that bridges the gap between the trainers and trainees. The MoE, therefore, felt the need to create a collaborative, collegial, and purposive learning culture in the schools. Though the policy has envisioned self-motivated, responsible, and autonomous (self-determined) teachers, the teachers are habitually taking TPD as an escape from the daily routine of the schools (Mathema & Bista, 2006). Despite the policy suggestions, schools in Nepal have not been enabled to promote influential professional development programs that reflect the changing paradigm of learning. Thus, there is a policy practice gap in the context to the community school despite it stressing that the teachers “must be made more responsible, accountable, and trained as per need of the twenty-first century” (MoE, 2017, p. 172). The post-training monitoring, supervision, and performance assessment have been overlooked in all the teacher training programs implemented so far. Besides this, the dominant use of the lecture method for teacher training and the availability of facilities (including furniture, projector, etc.) have also played an important role in the ineffectiveness of transferring TPD into classroom practices.

According to Self-Determination Theory (SDT), humans have three basic psychological needs: autonomy, competence, and relatedness (Deci & Ryan, 2000). These psychological needs help gain pleasure from activities people choose to do by themselves rather than from activities they receive from external reinforcement or from activities they are pressured to do. With regard to teachers, therefore, the three psychological needs play a crucial part in them being intrinsically motivated to learn new things on their own rather than by force. Therefore, I have chosen this theory due to the notion that teachers’ intrinsic motivation toward the self-learning process is possible if their psychological needs are met. The three psychological needs are explained below.



Autonomy is the first psychological need. It comes from a sense of well-being, and the ability to choose one's course of action on one's own initiatives (Deci & Ryan, 1985). Consequently, the quality of experience and performance is not as good in general when people are controlled than when they are autonomous (Deci & Ryan 2000). Regarding this notion, intensive TPD practices imposed by schools do not guarantee professional development or quality assurance of teachers. Instead, it is the autonomy to make free choices that leverage the performance of teachers. Therefore, although teachers may regularly participate in PD programs hosted by the schools, they may be participating unwillingly with no choice and endorsement, ultimately resulting in unproductive teacher performance.

Likewise, competence is the second psychological component of self-determination theory. According to this theory, competence is related to a person's sense of accomplishment and a need to feel confident and effective while accomplishing tasks (Deci & Ryan, 1985, 2000). More specifically, it refers to individuals' perceived competence, which can be different from their actual level of ability. This suggests that despite a low level of ability, an individual can

still be intrinsically motivated to perform in a desirable way if they perceive themselves to be competent in any activity. With regard to this psychological need, constant encouragement and appreciation become the key to enhancing the competence level of teachers. This in turn helps teachers to engage in all types of professional development learning opportunities sincerely and actively (even if limited in number) as they come by and to transfer the learning to their classrooms for successful student achievement.

Relatedness is the need for a “psychological sense of being with others in secure communion or unity” (Ryan & Deci, 1985, p.7). This conceptualization includes a sense of belongingness with other individuals, as well as with one’s community. The more individuals feel connected and related to the community, the more intrinsically motivated they will be. With regard to TPD therefore, the performance of teachers is leveraged if they feel they are valued members of the schools and that their voice is heard. In contrast, the performance of teachers may decline if their efforts are overlooked.

Research Methodology

To investigate the self-directed professional development practices of the two secondary level teachers (one male and one female) from a private school based in Kathmandu, Nepal, I have used a narrative study as the research methodology. Narrative inquiry is a common qualitative research method as it offers practical and specific insights to explore the personal experiences and stories (Creswell & Poth, 2012) of the teachers. The narrative study closely draws on the people’s experiences and stories (Geertz, 2000). Further, it is a method of recollecting a person’s life, experiences, and emotion from the people.

Using a purposive sampling method, I recruited two teachers from a private school based in Kathmandu. I was already familiar with them and shared the purpose of my research. Initially, I thought, “Won’t they hesitate or feel offended and awkward sharing their practices and experiences, and stories?” However, they willingly accepted my request to share their professional development experiences with me. It was for this reason; I not only developed an insider’s perspective but also work towards the sort of research relationship described by Connelly and Clandinin (1990) where participants feel free and respected to share their stories. Consequently, I interviewed them using open-ended questions in their cabins based in their schools after the classes. I met them three times on separate days, and each meeting lasted for one hour. While interviewing, I kept myself very neutral and friendly to keep my participants in their comfort zone. After their consent, the interviews were recorded. I transcribed the recorded data manually. Then, I read the verbatim many times. I adopted the inductive method of coding the interview transcripts and reported the results under three common themes that emerged from the data. To increase the trustworthiness of the results, I have used the participants’ quotes.

Results of the Study

Based on the analysis of the participants’ interview transcripts, three main themes were generated. This study illustrates how TPD practices are enriched by teacher autonomy, leader support, and monthly sharing sessions.

Individual Autonomy as Opportunity for TPD

Upon asking one of the male teachers to share how autonomy has helped him professionally, he replied:

Since I teach grade 10 students, I have the liberty to allow students to different categories based on their learning skills and provide needed assistance to upgrade their performance. This means I can guide students in ways that meet the learning standards set according to their aptitude. This makes it easier for me and other teachers to assist them as per their learning ability. This also makes students feel less pressurized and less burdened. Instances like this where you can experiment with ways to find out what works well for your students are always a source of motivation for teachers to perform optimally.

From the above data, I discovered that individual freedom to make choices and decisions also played an important role in trying out new things that helped them grow professionally thus enriching professional development experiences. Upon asking him how the positive culture of the school has helped him in TPD, he replied that an autonomous workplace environment encourages him to take accountability and responsibility for his decisions. It also makes him feel valued and appreciated. This in turn helps him to research and find various ways he could contribute to effective pedagogical practices in the school. He gave an example of how he tried to make online classes effective on his own. He shared:

It was challenging for the school to run online classes in the beginning as the only online tool we used was google meet. The teachers including myself still relied completely on books to take online classes. However, after attending a couple of online zoom webinars arranged by the school, all the teachers including myself got basic ideas on how we could use online tools to make the online classes more effective and interesting. There was no looking back from there. Each day became a new exploration as I, including my colleagues, would try to search for new digital online tools from the link provided during the webinar session. With time, we explored and mastered various online tools like quizziz.com, menti.com, Socrates, Kahoot.com, Woo clap, near pod, and many more. Although we initially faced some hurdles trying out these tools, I must say it was because of the school's continuous faith in us that we were able to bring a drastic change to our online teaching practices. We, the school team, are now providing online training to various schools on effective online teaching and learning.

Similarly, the female teacher also regarded a flexible environment as one of the crucial factors that indirectly fostered teacher professional development practices. She believed that PD practices are effective only if there is a conducive environment to prosper and progress. She indeed compared the process of TPD with a seedling. Just like a seedling can't grow without a favorable environment, she believed TPD would be rendered ineffective if teachers are barred of autonomy to grab learning opportunities. She was, therefore, thankful to the school for giving her space to exercise her willingness to explore and learn. She shared an instance of a flexible climate where the schools allowed their teachers to continue with home visit programs upon their request. She also shared another noteworthy instance where her decision was appreciated and agreed upon. She revealed her experiences as,

Once I expressed concern over the unsatisfactory performance of some students to the principal and he asked if I had any plans on my mind. I asked if it was possible for me to take an after-school support class. He agreed with a smile and called on concerned staff to communicate with parents about the support class. I have been taking support classes with full responsibility and accountability. It is indeed because of the autonomous and open workplace culture that I find myself striving to improve the academic outcomes of low-achieving students.

Upon asking how the working place environment has helped in her TPD, she shared a similar experience on how she was motivated to give her best and equip herself with new pedagogical skills and practices despite many pedagogical challenges. She recalled as,

When there was a shift from physical to online classes, I was reluctant in the beginning since I didn't have a laptop and the required knowledge and skills to take online classes. I would take online classes like I used to take physical. I would solely rely on books thereby making the online classes boring for the kids. However, the online training provided by the school and the support we received from our academic directors and peers made our online classes possible and effective as well. It helped me realize that when there is a will there is a way out. I am now a part of the school team that also provides online training to other schools.

Thus, the above data indicates that the institution has been able to create a flexible environment and autonomy as an institutional culture that has intrinsically motivated teachers towards their individual and organizational growth. Robbins (2003) stated that people who are motivated exert a greater effort to perform than those who are not motivated. Providing freedom of expression, providing autonomy in decision making, captivating trust, and making staff members feel valued and esteemed members of the organization are some of the organizational attributes that promote the self-learning experiences of teachers in the institution. The above individual experiences of teachers have indeed reminded me of what Roger (1996) argued, motivation for learning comes from within.

Leader Support by Granting Leave as Opportunities for TPD

The leader's support by granting teachers leave whenever they required, was another revelation for effective TPD practices. The participants believed that the principal hardly disapproved of their request to grant them leave whenever they needed it. Although granting leave is not an uncommon phenomenon, the participants claimed how this indirectly helped them perceive their careers more seriously and become self-motivated to update and learn new teaching-learning practices. In the interview with the male teacher, he exclaimed:

Whenever I reach up to the principal to ask for leave, he hardly hesitates. He has indeed granted leave all the time I've requested. Even under a challenging situation, he makes decisions in favor of us. This has not only helped me balance my professional and personal life, but it has made me want to commit to the organization wholeheartedly. It is due to this positivity in the school, we teachers are always motivated to perform optimally.

On being asked about how he has managed to update himself to perform optimally, he listed some of his self-learning practices as,

Whenever I get time at home, I watch Ted-talk shows on educational practices. I sometimes research the topic to deliver to my students for effective planning. I also try to attend all the TPD sessions offered by the school and implement them in my class. Whenever I get the turn to present during the monthly sharing session, I try to come up with easy but innovative ideas that can be implemented in the class to boost student learning outcomes.

In a similar manner, the female teacher shared her experience on how leader support by granting leave helped her in improving her teaching-learning practices. She exclaimed:

I have been working in this institution for 10 years now and one main reason why I have continued to work in this institution despite leaving this school three times is that the school understands the teachers' emotions and supports us in many ways. I still remember the instance when the principal extended my arrival time from 8:45 am to 10:30 am after I got married and had to travel 28 km to reach the school. I also remember the time when he granted me one year's leave during my pregnancy and delivery. It is indeed due to the constant support I have been getting, that I feel motivated to explore new teaching-learning practices and give my best.

When asked how she explores new teaching-learning practices, she replied:

I take initiative to attend different educational training held in town. I also google best practices and try to incorporate them into the class. I never miss any learning opportunity offered by the school because they are very effective and engaging and can be practiced in the classroom. Moreover, whenever we have monthly sharing sessions, I share my practices with my peers and ask for feedback. I also provide feedback to my peers when required.

The participants' quotes mentioned above reveal how granting leave to support teachers socially and emotionally could be one of the ways that indirectly foster teacher professional development practices. To develop as a good teacher, one needs to develop as a person, which means teacher development relates to various aspects of teachers' personalities. These data

provide a hint that the sense of empathy, care, and concern for teachers motivate them intrinsically. In line with data, Clardy (2005) argued adult learners learn when there is an internally driven motivation to learn.

Monthly Sharing Sessions as Opportunities for TPD

Monthly sharing sessions are yet another revelation that both the participants confirmed to have on a regular basis. During these sessions, every teacher is assigned to present their classroom practices. They were asked to present evidence-based practices. They believed that such practices keep them informed about different pedagogical practices. The female teacher remembered how one of those sharing sessions helped her. She shares as,

I was struggling to find the resources to make my lesson plan. Because of sharing sessions among teachers, I got to know the online sites like “sikne thalo” and other pedagogical practices like paired questioning and KWLS (what they know, what they want to know, what they have learned, and anything they still want to know) chart that contributed to her teaching-learning practices.

The male teacher, on the other hand, took monthly sharing sessions as an appetizer that kept his hunger alive for learning. He mentioned:

I have always been taking the class the way we had been taught by our teachers. So initially when I presented my classroom practice most of my colleagues provided feedback that can improve the lesson plan. Such Constructive feedback that is provided after each presentation motivated me the most and I have always tried to incorporate such feedback in my classroom. These types of sessions motivate me to learn more and improve my classroom practices.

This means that teachers can be voluntarily motivated for self-development. No one can force a person to learn and grow. Moreover, each teacher is unique in important ways, and it is impossible to create single centrally administered and planned programs of professional development that meet everyone's needs and desires. So, teachers should motivate to self-reflect, self-observe, self-understand, and self-revel the knowledge based on the workplace (Sternberg, 2010). Thus, the data showed that monthly sharing sessions can encourage teachers to self-professional development voluntarily.

Discussion

The study reveals that the participants have been attending monthly experience sharing sessions and professional development activities. Also, the use of Google, YouTube, TED Talks, reading papers, sharing classroom practices, and constructive feedback from peers have also enriched self-directed professional developments in the school. In this regard, Richards et al. (2001) found that in-service courses, seminars, conferences, student feedback, teachers' self-discovery activities, and trial and error activities work as TPD practices. In addition to these self-directed activities, constructive feedback from peers, shared classroom practices, and self-reflection are other practices found in the private schools in Nepal. This result is aligned with Tam (2015) who viewed building a professional learning community where teachers support each other lead to self-directed TPD. This shows that teachers initiate change, if the school values teachers' contribution, shows trust, and provides autonomy. Similarly, if school creates an environment for teachers to self-reflect on their practices, they can create TPD opportunities themselves (Gnawali, 2008).

All the above themes of individual autonomy, leader support, and monthly sharing sessions provide opportunities for self-learning that aligns with my theoretical lens, that advocates the need to feel free and self-directed, the need to feel effective, and the need to connect closely with others (Ryan & Deci, 2000). Since the teachers are exposed to the flexibility of the school environment, empathetic relation with the school leader, and a sense of belongingness, they are always self-directed for their own growth. Self-directed learning is taking own initiative to learn from the library, internet, magazine and newspaper, dictionary,

textbooks, and other essential things for self-study. Shakya (2011) has also discussed the self-regulated professional development approach that has emphasized self-study for TPD. And it is possible if we are sensitive to the need and wants of teachers. When teachers internalize such qualities, they become self-determined to keep themselves motivated for learning. Thus, the theme-based findings are aligned with my theoretical lens that claims teachers are intrinsically motivated to perform because it is inherently satisfying them, and they are not concerned with what outcome will be received or avoided by engaging in the action.

Conclusion

Overall, the findings in the study reveal that teacher autonomy, leader support, and monthly sharing sessions are the key aspects of self-directed professional development for the teachers in the private schools in Kathmandu, Nepal. If the teachers internalize the feeling of being cared for and valued, they get self-inspiration and learn willingly for life long, as participants reported. The use of Google, YouTube, reading papers, shared classroom practices, and constructive feedback from peers are few research skills, self-reflective skills, and shared pedagogical practices that enriched self-directed professional developments in the school. Thus, this paper gives insight into how teachers can initiate self-directed TPD and self-learning if teachers experience the freedom of expression, concern for care, and feeling of self-sufficiency. The institution seems to have a collegial environment. However, there is still a gap in structured teachers' professional practices like student-centered instructional practices, clinical supervision, and core skills training. Moreover, further research is needed to determine if these findings are transferable to a larger audience.

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Modified Delphi Techniques for Sustainable Hospitality

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Abstract

This study aims to explore the sustainable hospitality by taking the tool as Modified Delphi Techniques (MDT) which recommends and undertake the views, knowledges and expertise of the experts. This study was focused to Nepali resorts for sustainable development taking the tool as modified Delphi techniques throughout the constructs and items of SERVQUAL instrument. Ten experts who have experience, knowledge, and expertise in the area of the hospitality were involved in modified Delphi technique. In the first stage interview, construct and items of SERVQUAL were modified, refined re-arranged by the experts to realize the better service quality of the resorts. Process of MDT was followed to carry out the mutual consensus among the experts. Interquartile range (IQR) value was taken from 3 points Likert scale to verify the expert's consensus up to the final stages. The IQR value was taken from all develop items of each construct for expert's evaluation which was presented on Microsoft Excel. In the final stage of MDT, all question statements except two questions were found more relevant for service quality enhancement of the resorts whereas high consensus benchmark among the experts were identified. Items getting high consensus of experts can measure the service quality effectively of the resorts which is the basic foundation for sustainable hospitality.

Keywords— SERVQUAL, Modified Delphi Technique, IQR, Construct, Items, Sustainable hospitality.

Background

It was reported that Nepali hospitality and leisure sector, most of the customers report having experienced low service quality in different administrated tangible and intangible encounters, especially in the tourist standard resorts (MCTCA, 2014). Hospitality sector has higher investment among the local entrepreneur of Nepal and the private investment seems around 15 hundred billion rupees (HAN, 2019). As per the data of World Travel and Tourism Council, in the year 2017, tourism constituted 10.2% in global GDP. With such a global impact, tourism has energized the economy of many developing countries. In Nepal tourism industry earns 24% of the total foreign currency earnings, out of which 20% is from the hotel industry (HAN, 2019). Therefore, the emerging issues for sustainable hospitality is basic function to support the tourism in Nepal. Basic requirement to sustained the hospitality and leisure is to address service quality and customer satisfaction. Service quality in responsiveness identified positive and significant correlation to the customer satisfaction in Nepali resorts (Adhikari, 2022). Hence, it is most important to have the compatible tools to measure the service quality that ultimately support to enhance the sustainable hospitality business specially in resorts of Nepal. Similarly in international contexts, different study has identified a positive and a significant relationship between service quality and customer satisfaction, (Bello, 2012; Bello et al., 2017; Prasad et al., 2014). To foster the service quality, norms, values and expectation of the customers should be acknowledge and execute those service which to be delivered to the customers. Norms, values and expectation can be realized by conducting the first and second stage of modified Delphi techniques as it is a bet way to improve service quality to sustained the hospitality and service sector.

Basically, the purpose of this paper was exploring the Modified Delphi Techniques as a tool for sustainable hospitality. Therefore, I researched to answer the research questions as what are the evidence on Modified Delphi Techniques that promote the sustainable hospitality taking the resorts of Nepal?

Sustainable Hospitality

Hospitality industry depends upon the huge natural resources and other different consumable energy that creates significant impact on natural environment (Melissen, 2013). Maximum utilization of water resources, consumption of foods and electricity, creation of harmful and solid waste are the main concern of the hospitality industries regarding the natural environment (Wijesinghe, 2014). de Grosbois and Fennell (2011 p. 231) argued that among the total tourism, hospitality sector is responsible for 21 percent carbon footprint. Due to economic motivation, customer's needs take priority over the environmental issues (Kasim, 2007). de Grosbois (2012) observed that some hospitality sectors are adopting greener and no-plastic business practice to address those issues. But it is not adequate for sustainable hospitality. To contextualize and aligned between economic motivation and environmental issues, expertise and knowledge regarding the sustainable hospitality is essential. One of the tools to acquire the wide body of knowledge regarding sustainable hospitality can be Modified Delphi Technique (Peck & Devore, 2007) which is the main concern of this paper.

Modified Delphi Technique

The Modified Delphi Technique is used to collect and analyze the opinions of a group of experts in a certain field of study (Nashir et al., 2015). Cluster et al. (1999) claimed that the Modified Delphi Technique is similar to the Delphi technique in terms of research procedure. Therefore, to obtain a consensus among the selected experts on the constructs and items of the research topic, it can be modified based on the result of the first stage. Basically, modified Delphi technique involves three stages of study which are (i) literature review and interview (ii) questionnaire evaluation (iii) evaluation of the correction made on the questionnaire" (Jubri et al., 2019). The constructs and items of the study are identified from the literature as well as norms values and assumptions of particular subject. These proposed constructs can be used as a guide in the next interview phase of the first stage. The interview involved a panel of experts who have been contributed including in the selected subject and construction of standard constructs and items of the specific subject of the research. The interview can be conducted separately with all experts with the purpose to express much more open thought or opinions without being influenced by other experts or stakeholders (Jubri et al. 2019). Based on the interview of these experts, different constructs and items can be identified to successfully reach the consensus and construct modifications. The researcher can formulate and adapt the items from the SERVQUAL theory for each construct in the questionnaire to conduct research on the topic of the study. Hilmi et al. (2014) suggested to adept and formulate the items involved in screening, interpretation, and careful reading of the research topic. Therefore, developed items (question statements) of the constructs were then evaluated and reviewed by stakeholders and experts in the second stage of the Modified Delphi Technique. Initially, to research for this study, a set of question statements containing 22 items (from the SERVQUAL instrument) were distributed to the ten anonymous stakeholders and experts with two weeks to obtain required verification, opinion, inputs, and suggestions for those items' improvement process. They contributed new ideas. For example, pattern of questions was revised and also two items on the 'tangibility' construct were added. Similarly, extra one construct 'expectation' was identified and six items were included to improve the measuring tool of service quality, which is also recognized in the literature of Zeithaml et al. (1993). Furthermore, linguistic correction, simplicity of the questions and one extra item on 'reliability' construct was also added for the second stage. Items were evaluated based on the 5 points Likert scale or level of consensus of the stakeholders and experts namely strongly agree, agree, undecided, disagree, and strongly

disagree. After all the stakeholders and experts had decided their respective consensus benchmarked as well as views on each item, then the data obtained from the Likert scale were transferred to quartile numbers and put in to the Microsoft Excel software to analyze the result. As suggested by different literature (Jubri et al., 2019; Subri et al., 2019), data collection and analysis processes were carried out by conducting three stages of the Modified Delphi Technique. The first stages process was completed by obtaining the construct and items of service quality from the SERVQUAL (Zeithaml et al., 1990; 1993) literature and interviewing with ten anonymous experts. The second and third stage processes were conducted to reach a high level of consensus on construct and items of service quality. In the second stage, all experts were given the construct and items with categorized 5 points Likert scale and also a blank space was provided in each construct for comments, suggestions and their opinion. Then, comments and suggestions from the stakeholders and experts were also considered to improve the items of the construct that proposed to the third stage of the Modified Delphi Technique. The items of the construct were evaluated through the Interquartile range (IQR). It determined the level of consent among the stakeholders and experts based on the 3 points Modified Likert scale (Peck & Devore, 2007).

Data Analysis and Result

Subri et al. (2019), there are two important aspects of the Modified Delphi Technique. The first is the interquartile range (IQR) and the second is the IQR procedure to translate linguistic variables into modified numbers (Subri et al., 2019). They further explain that the level of consensus among the experts can be determined. Modified scale ranges from 0.00 to 1.00 and 1.01 to 1.99 is acceptable and the IQR value 2 and above indicates no expert agreement and items should be removed (Peck & Devore, 2007). Hence, as suggested by Jubri et al. (2019), the Interquartile (IQR) steps and the formula is presented in Table 1 and Table 2 below:

Table 1

Steps to finding the IQR value

- | |
|--|
| 1. The approval benchmark scale value of the expert and stakeholders needs to be compiled from a small to a large order for each item (ascending order). |
| 2. Use the formula in Microsoft Excel software to find Quartile 1 (Q1) and Quartile 3 (Q3) values. |
| 3. IQR (Interquartile range) value = $Q3 - Q1$ |

Table 2

3-Point Modified Likert Scale

Level of Consensus	Modified Scale	Result
High consensus	0 to 1	Accepted
Moderate consensus	1.01 to 1.99	Accepted
No consensus	2.0 and above	Rejected

Source: (Subri et al., 2019; Jubri et al., 2019; Peck and Devore, 2007).

After conducting the first stage of Modified Delphi Techniques, – conducting the literature review of SERVQUAL (Zeithaml et al., 1990; 1993) and interview with the ten anonymous experts of the different service organization of the service sector, six constructs were identified with 31 sets of question statements (items) from the perspective of customer's expectations. In the second stage of the Modified Delphi Technique, respective benchmark of selected ten different anonymous experts on the six construct and thirty-one items of modified SERVQUAL was identified and accepted items were carried out for the third stage Modified Delphi Technique for high mutual consensus among all experts (See Appendix-I and II)

Finally, all items from the six constructs were not missing after conducting the second and third stage of MDT except TA6 and EX3 from the tangibility and expectation constructs respectively. To evaluate the worthiness of all items, TA2, TA3, and TA4 from the tangibility construct, RL1 and RL5 from the reliability construct, AS2 from the assurance construct, EX2 from the expectation construct (all together 7 items) show strong high consensus benchmark (obtained IQR value 0.00) from the stakeholders and experts in both stages. No items found from the responsiveness and empathy constructs with strong high consensus benchmark after conducting the both stages of Modified Delphi Techniques. Remaining retained items also obtained high consensus benchmark from the 3 points modified Likert scale (Peck & Devore, 2007) after conducting up to the last stage of Modified Delphi Technique. Therefore, the items listed in Appendix-III, all six constructs were retained except for two items because all accepted items' IQR values ranged from 0.00 to 1.00. According to Subri et al. (2019), Jubri et al. (2019), and Peck and Devore (2007), the IQR values from 0.00 to 1.99 represent a high consensus benchmark among the experts on the items of question statements that measure service quality of the resorts. Hence, to promote sustainable hospitality MDT is an effective tool.

Discussion

To contextualized SERVQUAL instrument MDT find a better technique that led the better service quality in the resorts. Better service quality is positive sign of sustainable hospitality. Cheng and Rashid (2013) have critiqued applicability and validity as well as length and the predictive power of the SERVQUAL instrument and suggest developing new constructs and items to rectify the limitations. Therefore, most of the researchers and scholars of the globe developed the construct and items of the SERVQUAL as per the requirement of the study. Among them, Munhurrun et al. (2010) developed extra two Satisfaction and Loyalty construct including one and two items respectively on the SERVQUAL instrument to measure the service quality from the perspective of employees' satisfaction in Mauritius. They accepted five items from reliability, three items from responsiveness, four items each from assurance and empathy, and three items from tangible construct. Similarly, Wong et al. (2012) also developed the Knowledge and Communication construct with three items (question statements) each respectively, and removed the Tangibility construct from the SERVQUAL instrument which was irrelevant to their educational research in Malaysia. They accepted four items each from the remaining four constructs of SERVQUAL to conduct the study. Likewise, Bello et al. (2017) used the same construct with items refining and modification of the SERVQUAL instrument to measure the effect of service quality in Nigerian hotels. Therefore, there is a broadly mutual consensus among scholar of services marketing that the modified SERVQUAL instrument of Zeithaml et al. (1990) have a worldwide legacy in the literature to measure service quality in the area of hospitality and service sector. Hence, in this paper, the researcher also carried out one extra 'expectation' construct on the SERVQUAL instrument from the first stage of the Modified Delphi Technique that assumed to foster the service quality for sustainable hospitality.

Conclusion

The Modified Delphi Technique is similar to the Delphi technique (Cluster et al., 1999) as per the research procedure. All comments, suggestions, and opinions of the experts are included in this model which are more crucial to developing the construct and items. Insights from this process are very crucial to measure the service quality of the resorts which is the foundation for sustainable hospitality. Items modification and refining procedures is essential under this technique that can support to update service quality. Therefore, this study is most important to identify the required construct and items to measure the service quality and quality enhancement of the hospitality and service sector, particularly in the resorts of Nepal. Since, it is crucial for the policymakers of the service organization basically in the hospitality and leisure industry to consider the needs under the different construct that can help for sustainable

development. Employees' core requirements can also be identified from the item requirements under the respective construct which is the main goal of Human Resource Management (HRM) to foster the performance of the service organization. Strong HRM is the basic sign of sustainable development under hospitality sector. Nepal has a huge investment in the hospitality, leisure as well as tourism industry. Therefore, to increase the national Gross Domestic Product and promote the destination, high service quality is essential. High service quality led to the sustainable development of the country. Hence, this study is crucial to nurture the sustainable hospitality taking the lens of the SERVQUAL instrument.

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Appendix I

Items dropped or accepted in the second stage

Items	The Approval Scale Value (In Ascending Order)										Q3	Q1	IQR Value (Q3-Q1)	Result
TA1	2	4	4	4	4	4	5	5	5	5	5	4	1	Accepted
TA2	5	5	5	5	5	5	5	5	5	5	5	5	0	Accepted
TA3	3	4	5	5	5	5	5	5	5	5	5	5	0	Accepted
TA4	4	5	5	5	5	5	5	5	5	5	5	5	0	Accepted
TA5	3	4	4	4	4	5	5	5	5	5	5	4	1	Accepted
TA6	1	2	2	2	2	3	4	4	4	5	4	2	2	Rejected
RL1	3	4	5	5	5	5	5	5	5	5	5	5	0	Accepted
RL2	4	4	4	5	5	5	5	5	5	5	5	4	1	Accepted
RL3	4	4	4	5	5	5	5	5	5	5	5	4	1	Accepted
RL4	4	4	4	5	5	5	5	5	5	5	5	4	1	Accepted
RL5	4	4	5	5	5	5	5	5	5	5	5	5	0	Accepted
RL6	2	3	4	5	5	5	5	5	5	5	5	4	1	Accepted
RE1	4	4	4	4	5	5	5	5	5	5	5	4	1	Accepted
RE2	3	5	5	5	5	5	5	5	5	5	5	5	0	Accepted
RE3	4	5	5	5	5	5	5	5	5	5	5	5	0	Accepted
RE4	3	3	4	4	4	4	5	5	5	5	5	4	1	Accepted
AS1	3	4	4	4	4	4	5	5	5	5	5	4	1	Accepted
AS2	4	5	5	5	5	5	5	5	5	5	5	5	0	Accepted
AS3	5	5	5	5	5	5	5	5	5	5	5	5	0	Accepted
AS4	2	3	4	4	4	5	5	5	5	5	5	4	1	Accepted
EM1	3	4	4	4	4	5	5	5	5	5	5	4	1	Accepted
EM2	3	4	4	4	5	5	5	5	5	5	5	4	1	Accepted
EM3	3	3	4	4	4	4	4	4	5	5	4	4	0	Accepted
EM4	4	4	4	5	5	5	5	5	5	5	5	4	1	Accepted
EM5	3	3	4	4	5	5	5	5	5	5	5	4	1	Accepted
EX1	2	3	4	4	4	4	5	5	5	5	5	4	1	Accepted
EX2	4	4	5	5	5	5	5	5	5	5	5	5	0	Accepted
EX3	3	3	3	4	4	4	4	5	5	5	5	3	2	Rejected
EX4	2	3	3	3	4	4	4	4	5	5	4	3	1	Accepted
EX5	2	3	4	4	4	4	4	5	5	5	5	4	1	Accepted
EX6	2	2	4	4	4	5	5	5	5	5	5	4	1	Accepted

NOTE: Constructs (TA = Tangibility, RL = Reliability, RE = Responsiveness, AS = Assurance, EM = Empathy, EX = Expectation)

Appendix II

Result of Modified Delphi Techniques (Third Stage)

Items	The Approval Scale Value (In Ascending Order)										Q3	Q1	IQR Value (Q3-Q1)	Result
TA1	2	2	4	5	5	5	5	5	5	5	5	4	1	Accepted
TA2	4	5	5	5	5	5	5	5	5	5	5	5	0	Accepted
TA3	4	5	5	5	5	5	5	5	5	5	5	5	0	Accepted
TA4	4	5	5	5	5	5	5	5	5	5	5	5	0	Accepted
TA5	4	4	4	5	5	5	5	5	5	5	5	4	1	Accepted

RL1	4	4	5	5	5	5	5	5	5	5	5	5	5	0	Accepted
RL2	4	4	5	5	5	5	5	5	5	5	5	5	5	0	Accepted
RL3	4	4	4	5	5	5	5	5	5	5	5	5	4	1	Accepted
RL4	4	4	5	5	5	5	5	5	5	5	5	5	5	0	Accepted
RL5	4	5	5	5	5	5	5	5	5	5	5	5	5	0	Accepted
RL6	4	4	5	5	5	5	5	5	5	5	5	5	5	0	Accepted
RE1	4	4	4	4	5	5	5	5	5	5	5	5	4	1	Accepted
RE2	4	4	4	4	5	5	5	5	5	5	5	5	4	1	Accepted
RE3	4	4	4	5	5	5	5	5	5	5	5	5	4	1	Accepted
RE4	3	3	4	4	4	5	5	5	5	5	5	5	4	1	Accepted
AS1	4	4	4	4	4	5	5	5	5	5	5	5	4	1	Accepted
AS2	4	4	5	5	5	5	5	5	5	5	5	5	5	0	Accepted
AS3	4	4	4	5	5	5	5	5	5	5	5	5	4	1	Accepted
AS4	2	3	4	4	4	4	5	5	5	5	5	5	4	1	Accepted
EM1	3	4	4	4	5	5	5	5	5	5	5	5	4	1	Accepted
EM2	3	3	4	4	5	5	5	5	5	5	5	5	4	1	Accepted
EM3	3	3	4	5	5	5	5	5	5	5	5	5	4	1	Accepted
EM4	4	5	5	5	5	5	5	5	5	5	5	5	5	0	Accepted
EM5	3	4	4	4	5	5	5	5	5	5	5	5	4	1	Accepted
EX1	2	4	4	4	5	5	5	5	5	5	5	5	4	1	Accepted
EX2	4	5	5	5	5	5	5	5	5	5	5	5	5	0	Accepted
EX3	2	3	4	4	4	4	4	5	5	5	5	5	4	1	Accepted
EX4	2	4	4	4	4	4	5	5	5	5	5	5	4	1	Accepted
EX5	2	4	4	4	5	5	5	5	5	5	5	5	4	1	Accepted

Appendix III

IQR value of all items in stages 2 and 3

Items	Question Statement	Stage 2	Stage 3
TA1	Resorts should have up-to-date equipment.	1	1
TA2	Their physical facilities (room, front office, pool, bathroom, toilet, building structure, lights, etc.) should be hygienic and visually appealing.	0	0
TA3	Their employees should be well dressed and appear neat and tidy.	0	0
TA4	The physical environment of the Resorts should be neat and clean.	0	0
TA5	The cost of the services should be reasonable.	1	1
TA6	Resorts should provide complimentary or discount items.	2	-
RL1	The Resorts should provide the service at the promised time.	0	0
RL2	Resorts should have sincere attention to the customer's problem.	1	0
RL3	Resorts always should perform the right service.	1	1
RL4	Resorts should provide the services as promised.	1	0
RL5	The Resorts should provide accurate information about their services.	0	0
RL6	They should keep their records accurately.	1	0
RE1	Employees should make information easily obtainable by the customers.	1	1
RE2	Employees should provide prompt service to the customers.	0	1
RE3	Employees always need to have willing to help the customers.	0	1
RE4	Employees should never be too busy to respond the customers'	1	1

	requests.		
AS1	The behavior of employees should instill confidence in customers.	1	1
AS2	Customers should feel safe in their transactions with employees.	0	0
AS3	Employees should be polite.	0	1
AS4	Employees should know to answer the customers' queries.	1	1
EM1	Resorts should give individual attention to the customers.	1	1
EM2	The operating hours of the Resorts should be convenient to all customers.	1	1
EM3	Employees should give customers personalized service.	0	1
EM4	Employees should have their customers' best interests at heart.	1	0
EM5	Employees should understand the specific needs of their customers.	1	1
EX1	Resorts should have a variety of products or service experiences.	1	1
EX2	The Resorts should have service delivery with good quality standard.	0	0
EX3	Resorts should have the prediction standard of the customers.	2	-
EX4	Resorts should have the ideal standard of the customers.	1	1
EX5	Resorts should have the real brand standard.	1	1
EX6	Resorts should have the experience-based norms of the customers.	1	1

A Critical Review of Philosophy for Children (P4C) in the Pursuit of Democratic Classroom Culture

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Abstract

In the spirit of democratic conduct, educators play a key role across all subject areas in deciding what to teach, for whom and for what purpose. Instilling strong democratic values in students through their educational experience is essential to establishing a more equitable society. Before evaluating how teachers perform this function and promote democratic practice in the classroom, it was necessary to read previous literature to capture teachers' views and beliefs. Per se, Sibbett's (2016) advanced the notion of transformative critique in education proposes that critical thinking and critical teaching are essential to establishing classroom practice for long term social change. It acknowledges the complexity of the system while attempting to apply Dewey's pragmatic approach. The literature indicated that teachers' belief influenced their decision-making and pedagogical approaches, implying that they underperform in their ability to mold a strong philosophical foundation in their learners. In this monologue, I voice the void left by the decline of philosophy in the neoliberal era. I am also endeavoring to demonstrate why it is crucial to employ philosophically informed teachers and integrate philosophy for children (P4C) in school guidelines and curricula if we want to transform and cultivate an environment where students may learn about and engage in democracy.

Keywords: Philosophy for Children (P4C), Critical Pedagogy, Deweyan Theory of Education, Democratic Classroom

Purpose

This study aims to explore and strengthen the connection by evaluating how the P4C movement originated in previously published literature.

Literature Review

As was previously observed, Deweyan (1916) and critical pedagogy (Friere, 1970; Giroux, 2010) take center stage in the texts under investigation. However, very less study was conducted using Matthew Lipman and Ann Margaret Sharp's Philosophy for Children (henceforth P4C). It is used to teach philosophy to students in schools. The P4C strategy is typically regarded as an effective teaching method for democratic citizenship (Lipman & Sharp, 1978). The connection is evident that it frequently goes unnoticed: P4C is designed to help students acquire the kind of critical thinking and interpersonal communication skills desirable to the citizens of modern democracies (Funston, 2017).

I explore some ways in which P4C is perceived as democratic education in each context, examine the different objections thrown against P4C in this regard, and provide viable P4C solutions. In conclusion, I emphasize how vital it is for practitioners to be aware of the various perspectives P4C covers about its role in democratic citizenship education. Educators do not comprehend democratic education in its entirety. Numerous academics assert that neoliberal accountability and assessment standards harm democratic education. By structuring a discourse about philosophy, education, and democracy around an investigation of the limitations and disparities between democratic education and education for democracy, I attempt to acquire my philosophical bearings in order to expose the ideals I cherish in a democratic society. Dewey's functionalist interpretation of ideals as instruments in the service of living humans appeals to

me because it contradicts the tendency of earlier political philosophers to elevate ideals above the status of mere idols, beyond problem-solving analysis, and closed to inquiry rather than open to it.

When attempting to comprehend how democracy may be performed in classrooms, some disparities between democratic education and education for democracy, with Dewey at the center once again, begin to make sense. Education in a democratic society is vitally dependent on a commitment to sustaining and developing democracy. Education is the sole means of achieving and sustaining the "area of common interests and the liberation of a greater range of individual talents" that constitutes a democracy (Dewey, 1916, p. 94). This study seeks to examine the formation and maintenance of democratic teaching practices among active and retired educators.

The approach with which the P4C proponents disagree the most is "conventional education." Traditional education stresses a top-down strategy in which the instructor imparts knowledge to the students. According to this paradigm, students should exhibit docility, obedience, attentiveness, and lesson recall. Children should not be engaged in the formation of this knowledge; it has already been established and should not be altered; only competent persons who have absorbed the traditions are permitted to do it (Biesta, 2017). Education is initially conservative in this regard since it strives to shape newcomers in accordance with historical custom. It is possible to progress, but it must be done gradually and after a thorough evaluation of the suggested adjustments in light of current information or procedures. Traditional education values traditions.

According to the mainstream educational paradigm, education for democratic citizenship is not something that should be pursued in schools or by those who are not adults. The information regarded as necessary for citizenship must be obtained before someone may be referred to be a citizen. P4C emphasizes the idea that democracy must be utilized in education and that student interactions serve as the cornerstone for knowledge growth. In addition, nothing in CPI is fixed by tradition; rather, everything is debatable.

I discussed a few concepts related to democratic citizenship, democratic education, and democracy in this part that P4C writers frequently bring up and debate. These concepts offer a starting point for comparisons when defining the kind of democracy and education that P4C supports below.

Deweyan Theory of Education

Dewey's philosophy had a significant impact on the creation of P4C. (Bleazby, 2009; Daniel, 1998; Golding, 2016). He undoubtedly contributed significantly to the movement's conceptual underpinning with his ideas. The Deweyan school of thought provides the most substantial evidence in favor of the idea that P4C is an appropriate method of democratic education. The idea of "interaction" is one of Dewey's philosophy's cornerstone ideas. The ongoing interactions between various elements and species define reality. People's interactions with their social and natural environments help define them as well, and through these interactions, knowledge is generated, improved upon, or modified. The information enables excellent environmental adaptation and change, but "inadequate" knowledge prevents these actions. According to Bleazby (2009), "If the application of an idea brings about its intended consequences, it is true" (p. 457). A unique way to move from a frustrating situation to one that is more rewarding is via inquiry.

According to Dewey, the capacity for reflective thought or inquiry is the ability to recreate experiences meaningfully. The ability to reflect on a situation, define the desired aim, devise and put into action a means to achieve it, and internalize successful ways in order to utilize them to reconstruct future experiences effectively is known as inquiry. In any event, knowledge, principles, and convictions are prone to error; they lack an inherent worth that

cannot be altered, improved, or rejected by different experiences, testing, or research. According to new information or conditions, even the inquiry type may vary.

Consequently, democracy is not a type of governance distinct from people's everyday lives or the groups they belong to, but rather a philosophy that underpins all of society. The citizen should be able to consider their past, present, and future act in concert with others, engage in research and discussion, be self-correcting, and change reality. As emphasized by (Gregory, 2004) these behaviors and attitudes should be followed in all social contexts, which of course includes educational institutions. According to Dewey and philosophers citing him, the only way to educate democratic persons is to provide all pupils with an education that allows them to develop the attitudes, abilities, and behaviors necessary for democratic life. In this regard, according to Deweyan pedagogy, the search of meaning, the habits of inquiry, and clear reasoning are the same for both a decent education and a democratic education.

The claim that P4C is a distinct sort of education for democratic citizenship is supported by and best understood by Dewey's views. As was seen from the preceding, Dewey believed that inquiry played a crucial role in how people interacted with their natural or social environments. Therefore, from a pragmatic perspective, P4C is a type of democratic education since it fosters the attitudes and abilities needed for inquiry.

Instead of imparting particular knowledge about the topic under discussion as would be the case in a regular classroom setting, the facilitator's role in P4C is to establish an environment in which the students may practice these abilities and do independent research on topics that interest them. The inquiry's protocols must be followed, and progress must be made, according to the facilitator's role. The instructor asks the students to employ specific abilities appropriate to the level of inquiry they are now at in order to achieve that goal. It's important to reiterate that P4C exposes students to deliberative democracy and that learning about democratic living means learning about democracy itself. (Lipman, 1998; Burgh, 2014).

Others have drawn attention to the substance of philosophical communities of inquiry, namely, philosophical conceptions, also to the link of the practice of the community of inquiry and democratization. Since democracy is built on philosophical ideas that are "highly controversial notions such as truth, justice, and freedom, each lacking a satisfactory definition, yet apparently essential to that desirable state of affairs which democracies promise to be," as Lipman (1998) notes, engaging with philosophical ideas enables students to have a richer and better democratic life. (p. 6). By allowing students to "pursue the ongoing clarification of belief and the interrogation of philosophical assumptions that promises a reconstruction of epistemological and ontological convictions that better match an emergent future," Kennedy, (2014) sees communities of philosophical inquiry as the most comprehensive form of "dialogic schooling" (p. 6). The CPI provides a setting where participants may practice and acquire democratic behaviors as well as a forum for challenging, elaborating on, and clarifying important social and political ideas, as well as, we hope, the chance to give them significance.

Therefore, there are several arguments in support of the assertion that P4C and Dewey's idea of democratic education have numerous connections. However, the relationship between P4C and Dewey's concepts is frequently criticized by authors. Action and exploration with reality or the environment are two pillars of Dewey's philosophy. This initially suggests that a complex or troublesome circumstance is what prompts inquiry. In other words, the environment is where the question came from. Second, a question can only be meaningful if it comes into contact with reality. Only via this encounter with reality can these conclusions be supported, disproved, or reformulated. Additionally, the pragmatic citizen collaborates with others to change his social life. The pragmatic citizen participates in problem-solving in his numerous communities in addition to reflecting on them. However, there is no indication of such a relationship to the individual's surroundings in the P4C hypothesis.

In spite of this, the overall theory of P4C that is presented in the literature states that even if such a link between P4C and practice is feasible, it is not required. Dewey's thesis holds that, even though P4C clearly exhibits some of the necessary elements of democratic education, it cannot be regarded as a complete form of such education in the absence of such a relationship. This argument, however, falls flat when compared to Dewey's conception of social and democratic life, which unavoidably entails engagement with these settings in all of their facets. In a 2000 interview with Gregory, Lipman provides an intriguing rebuttal to this critique by arguing that P4C may not be intended to inspire action. Lipman put out the idea that P4C and social activity have to be kept apart. He seemed to accept that P4C has been criticized for being mostly a theoretical presentation and mentioned this should remain the case, also this ought not be considered a weakness. To change P4C in some way so that participants can engage with their social surroundings, all the writers previously identified who have critiqued P4C on this basis have made proposals.

Critical Pedagogy

A significant connection between P4C and democratic education is provided by critical pedagogy (Para & Medin, 2007). Given the numerous parallels between Dewey's beliefs and critical pedagogy that were mentioned in the section before, this association seems to be inevitable. For instance, Deweyan theory and critical pedagogy advocated that the major goal of education should be to foster children's ability to think critically and independently rather than teaching them to memorize facts. The usual traditional education, which Dewey and critical pedagogy both argued may be erroneous since knowledge must be produced, is known by Paulo Freire as the "banking model of education" (Freire, 1970). The ideas that discourse is an important component of a high-quality education, that education should be relevant to participants' lives, and that the classroom environment should be democratic and co-created by instructors and students are shared by both schools of thought. Dewey and P4C have a clear link, while the relationship between Dewey and critical pedagogy is less obvious. Despite the fact that critical pedagogy also places a strong emphasis on inquiry, interaction, and discussion, it interprets these components differently than Dewey did since they are intimately connected to the concept of power linkages. Injustice, alienation, and the split between oppressors and victimized are the essential characteristics of human existence. Muzna Awayed-Bishara (2021) emphasized this is intricately tied to the political, economic, and social structures that create, uphold, or worsen inequality. Knowledge cannot be separated from this reality; it either works to create a more just society where everyone is valued and given the chance to achieve, or it works to maintain the status quo, which keeps inequities alive. There is no such thing as objective or neutral knowledge since all knowledge is political by its very nature. In order to overcome their situation and alienation and gain freedom, oppressed individuals must interact with others in order to change their reality. But those who oppress others are asked to join this endeavor as well (Freire, 1970, 2001).

What form of democratic citizenship and society does this theory support? In a democratic society, people have the chance to collaborate to solve societal issues, as was previously said. Due to the existence of this egalitarian society, it strives to close the gap between oppressors and the oppressed and to create an environment where everyone may live in freedom. The democratic society is an ongoing movement of individuals, organisations, and communities striving to address social and environmental challenges. It can never come to pass since it is an ideal and a utopia (Biesta, 2017). A member of society can cooperate with others since they are both aware of the unfair social structure and willing to strive to alter it. We may say that, after making these first links, we can evaluate P4C similarly from the viewpoints of critical pedagogy and Dewey: P4C is largely a discursive activity in which participants are not required to perform or, more accurately, to interact with their surroundings. The criticism of P4C's critical pedagogy, nevertheless, is harsher. Building a better, less

alienating, more open, and more fair society is the cornerstone of education. Therefore, education fails to encourage philosophical thought among people. It must also give individuals the knowledge of the many repressive webs they are caught in and the will to work together to create a less oppressive environment in order for them to collaborate to change their surroundings.

It is not immediately clear how this notion fits into P4C. Therefore, objectivity is surely a crucial idea for the P4C session facilitator since he shouldn't take a side on the subject at hand. His responsibility, as outlined by the CPI methodology, is to make sure that the participants possess the proper skills and attitudes and that the inquiry process is respected. The facilitator trades off topic knowledge for procedural proficiency; he or she is pedagogically assertive but philosophically humble; they don't educate students what to believe but rather how to think (Gregory, 2008). As a result, the facilitator would go against this rule if he took a stand against tyranny or injustice since he would then have a clear viewpoint on the issue at hand and be more likely to steer the discussion in that direction. P4C would therefore be fostering injustices and biases rather than working to alleviate them.

If facilitators were made aware of the interactions between prejudice, socioeconomic disparity, and discrimination, they would be the first line of defense against these claims. This could have an effect on the stimulus they decide to use to treat the problem. In the traditional technique, a Lipman book serves as the stimulant for a CPI, encouraging students to come up with questions before choosing and discussing the issue. Facilitators could thus employ a trigger that is connected to oppression or marginalized groups (Kohan, 2018). How can a facilitator handle the next choice, which seems to be more challenging to carry out? How hard should he urge the kids to talk about oppressed groups' perspectives? There is a conflict that must be acknowledged before it can be resolved; nevertheless, facilitators who are aware of this issue are crucial.

Conclusion

P4C is a ubiquitous way to educate democratic citizenship. This review examined how P4C writers placed this claim into words to make it explicit. Deweyan and critical pedagogy put together the main theme. P4C was perceived as a democratic educational strategy in distinct manners by each pedagogical approach. Even though various articles agreed on how valuable it is to implement P4C in the classroom, they did not all agree on how it should be regarded as democratic education. As a result of this study, policymakers should reckon about including P4C in school curriculums to better understand the theoretical foundations of each conviction about the relationship between P4C and democratic education.

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Professional Development of Public-School Teachers: A Case Study of Dhading, Nepal

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Abstract

The Nepal Government made teacher education mandatory for all schoolteachers in 1971, so teachers' professional development has always been a priority of government policy and programmes such as SSRP and SSDP. The teacher professional development aims to improve the knowledge and skills of teachers so that they can perform their best in the classrooms; however, the NASA report of 2015 reveals poor learning achievements of grade 5 students in Nepali, English and Math subjects. Government records show that around 82% of teachers at primary are trained, but why have most public-school teachers practised rote learning or lecture-based methods in the classroom? What is the effectiveness of TPD that the government and different agencies have provided to them? There is very little research on the application of TPD in the classrooms, and I could not find much research exploring teachers' perspectives. So, considering the case study method, this study explored teachers' perspectives on professional development and its effectiveness. The narratives were collected from 8 female teachers of two primary schools in Dhading. The study revealed that teachers have improved knowledge and skills with the help of TPDs but could not translate and apply many of them into the classroom teaching learning practices as expected. Some teachers practised new knowledge and skills; however, that could not last for an extended period, and ultimately, they returned to the usual practices. It shows that TPD brought changes in knowledge and skills but could not bring change in their perspective towards new ways of teaching methods learned from TPD. Furthermore, teachers have learned only via the professional development programmes organised by the government, including other agencies, and they have not tried much by themselves. For this, with the focus on the teacher's motivation and readiness, the content, modality, and process of the TPD need to also focus on bringing changes in the teachers' mindset, beliefs, and behaviour to improve the effectiveness of TPD and translate it into classroom practices.

Keywords: Teacher professional development, transformative learning, classroom teaching learning, teacher practices, public school teachers

Introduction

A teacher is responsible and assigned to facilitate lessons to students and help them acquire knowledge, competence or virtue. To become a teacher, one must have three qualifications: minimum academic qualifications, a teaching license and success in the teacher employment examination. The professional development of teachers has been a target of government policy (Maharjan & Bhattarai, 2017) to increase students' engagement in teaching and learning activities. The Government of Nepal has made teacher education mandatory since 1971. The goal of teacher professional development is to ensure that all teachers have the knowledge and skills to facilitate student learning processes (MoE, 2009) effectively. In a broad sense, it refers to the development of a person in his or her professional role (Galtthorn, 1995). Teachers' professional development concerns the growth and development of teachers in their professional roles to perform at their best (Bharati & Chalise, 2017). According to MOE (2011), 82.9% of teachers at primary, 65.2% at lower secondary and 87.9% at secondary level are fully trained in public schools. According to MoE (2014), teachers must be well-informed and

equipped with updated knowledge and skills to be involved in classroom research, training, self-studies and reflection. They are expected to be dedicated and faithful towards their students, the subjects they teach, and their professional growth. The teachers experiment with instructional practices to improve the students' engagement in teaching and learning activities. For this, they will have to apply the learnings, new knowledge and skills in the classrooms so that students can ultimately benefit. However, the student's learning achievements are not as expected or so encouraging in public schools of Nepal. According to a NASA report (2015), the average learning achievement of grade 5 students in Nepali, English and Math subjects are 46, 47 & 48, respectively (ERO, 2016). This situation raises the question of why Nepal's public school situation is poor. When I went through the literature, I did not get thorough research conducted and explored experiences of public school teachers, so this study explored the perspectives of public school teachers on professional development and applying new knowledge and skills in the classrooms.

Teacher Professional Development

Professional development includes teachers' formal and informal experiences (Ganser, 2000). According to Joshi (2012), teacher development includes both formal and informal means of helping teachers master new skills, widen their knowledge, and develop an innovative insight into their pedagogy, practice and understanding of their needs. Bredeson (2002) perceives the notion of professional development to consist of three interdependent concepts: learning, engagement and involvement, and defines professional development as “learning opportunities that engage educators’ creative and reflective capacities in ways that strengthen their practice” (p. 663). Wallace (1991) summarise teachers' knowledge into two types; they are: received knowledge, i.e. the knowledge which is gained after studying professional publications like textbooks, teacher reference books, newspaper, articles etc., and experiential knowledge, i.e. the knowledge formed or discovered with the help of existing knowledge. Teacher professional development is essential to efforts to improve our schools (Borko, 2004). Professional development changes teachers' attitudes and perceptions (Guskey, 2002).

The current effort of teachers’ professional development in Nepal is primarily need-based rather than the imposition of what particular experts decided as one-fits-for-all. School Sector Development Plan (2009-2015) laid down indicative policies regarding teacher development in various ways, such as i) selection and recruitment, ii) qualification requirements, iii) teacher promotion, iv) in-service teachers' development, v) career path and promotion, vi) specialised teaching cadres, vii) teacher performance monitoring, and viii) headteacher selection and training requirement. In the same way, School Sector Development Plan (2016-2023) has also focused on teacher development as one of the major components. NCED (n.d) has provided two training programmes; teacher training and management training. Since its inception, NCED has been running different teacher training such as primary teacher training (10 months) programmes, pre-service primary teacher training programmes and in-service primary teacher training programmes. It is divided into three packages; basic teacher training programme (first phase 330 hours), primary teacher training (second phase 660 hours) and primary teacher training (third phase 330 hours). The lower-secondary and secondary teacher training programme is divided into three phases, like primary teacher training.

Theoretical lens: Transformative Learning Theory

Considering the phenomenon of study, I chose Transformative learning theory to explore public school teachers’ perspective on teacher professional development and applying knowledge and skills in the classrooms. Transformative learning theory, identified by Jack Mezirow (1978) in the 1970’s talks about changes in meaning structures (perspectives and schemes). I found the transformative learning theory suitable for this study to explore changes in teachers' perspectives. Meaning structures are understood and developed through reflection (Mezirow, 1991). The content, process and premises of the teacher's professional development

have been explored in this study (Mezirow, 1991). The transformative learning theory is based on the principle that personal experience is integral to learning. It suggests that a learner's interpretation of the experience creates meaning, which leads to a change in behaviour, mindset, and beliefs. There are four ways of learning: "refining or elaborating our meaning schemes, learning new meaning schemes, transforming meaning schemes and transforming meaning perspectives" (Mezirow, 1991). Transformative learning also talks about (1) a process, (2) an outcome, or (3) pedagogy (Fisher-Yoshida, Geller, & Schapiro, 2009).

For transformative learning, Mezirow (1978) defined ten different phases to be experienced, whereas Nerstrom (2014) summarised them in four phases; they are (a) having experiences; (b) making assumptions; (c) challenging perspectives, and (d) experiencing transformative learning. Transformative learning then becomes a new experience. Once transformative learning occurs, individuals are more receptive to experiencing it again. Also, once transformative learning occurs, adults are unlikely to revert to their prior beliefs. According to Mezirow (2003), transformative learning is perspective transformation, a paradigm shift whereby we critically examine our prior interpretations and assumptions to form new meaning. This perspective transformation is achieved through (1) disorienting dilemmas, (2) critical reflection, (3) rational dialogue, and (4) action.

Methodology

The case study method considered exploring the perspectives of public-school teachers on professional development and applying new knowledge and skills in the classrooms within its real-life context. I have detailed explored teacher professional development Mitchell (1983). The public school teachers' professional development and application of knowledge and skills in the classroom have been studied in the particular context of Dhading, Nepal.

For this study, I have selected two schools, A & B, out of 18 public schools of Gajuri Pida Gaupalika of Dhading purposefully based on the study purpose. Total of eight teachers (4 from each school) have received training as part of their professional development and have been teaching at a basic school in grades 1-3.

I used a semi-structured interview approach. As Mulhall (2003) mentioned, I used field notes to capture notes of the feeling, and emotions of participants during the interview, how they behaved, interacted, dressed and moved, and did different activities, special events, and conversations in the field and before entering the field. Based on the pattern-matching approach of data analysis suggested by Yin (2011), I transcribed the narratives, coded, categorised and developed themes. The emerging patterns from codes were interpreted and discussed, considering a theoretical lens to make the meaning out of it.

Teacher Training and Professional Development

It is found that the major and common training received by teachers are the government's teacher professional development (TPD) and child-friendly teachers training facilitated by an NGO in collaboration with government authorities at the local and district level. The public school teachers must acquire TPD, one-month in-service training at least once every five years (SSRP). The child-friendly teacher training was designed and focused on an activity-based teaching-learning method – teachers trained on around 50 classroom activities in 9 days long training and a refresher of 6 days. The other training received by public school teachers include, in the case of Dhading, Continue Assessment System (CAS) training, Disaster Risk Reduction (DRR) training, Improved Washable Pad (IWP) training, science laboratory management training, ECD teacher training, low-cost no-cost material development training, child club management and domestic violence related training. Moreover, three teachers received ten months long training, which was obligatory to receive the teaching licence at that time, a decade ago.

The priority of teacher training was given to the permanent teacher at first, then to teachers who are in quota, and only then to temporary teachers. This provision discourages

temporary teachers who are mostly youth and energetic and have enormous potential to transform classroom teaching-learning and school education compared to old permanent teachers in public schools. Comparing school A and school B, it seems that teachers of both schools have received training on most subjects/topics and the same number of training; it must be because both schools are from the same Gaupalika. There are very few training such as TPD, CAS etc., that the government has been providing to public school teachers. As Mezirow (1991) suggested, receiving the training does not matter unless and until that brings changes in the teachers' mindset, behaviour and belief.

Both schoolteachers participated in the teacher training organised by the government and other agencies; they have not done anything alone as part of their professional development. Public school teachers have a limited practice of self-learning to develop their professional skills. Teachers do this only if those are part of government obligations in general. There are very few self-motivated teachers who are there really to contribute and bring transformation to the school. The teachers who have been teaching only for jobs do not want to bear any additional burden. The permanent teachers, particularly old ones who are waiting for retirement, are less motivated to learn new things and are taken as a burden. Experience, knowledge and skills should have contributed to motivating teachers to develop new knowledge and skills, but this is not the case in Dhading. The training received previously should have brought changes in teachers, there seems to be no paradigm shift (Mezirow, 1991) among those other teachers.

Knowledge and skills in Activity Based Teaching Learning (ABTL)

Because of teacher professional development training and programmes, public school teachers have developed different knowledge and skill. It is found that teachers have learned the importance of activity-based teaching and could link those activities with learning objectives defined in the curriculum. *Ambika (basic level teacher of school A) said, "After learning activity-based teaching (child-friendly teacher training), it opened our eyes though we had spent these many years in teaching. We realised we could do many things in the classroom and at school. We were encouraged and increased our confidence towards the end of the training."* Like transformation theory focuses, child-friendly teacher training helped them challenge their pre-assumptions on teaching-learning pedagogy, critically reflect the benefits of activity-based teaching and start changing first-level perspectives. *Another teacher of School B, Sita, said, "The activity or rules learned for one activity helped to develop another activity. Learned one subject and helped with another subject. We also learned about project work-based teaching. We experienced in the class that students remember for a long time and understand well if we taught them conducting different activities instead of just lecturing in the class."* Teachers have learned to develop new activities based on the skills they learned from the child-friendly teacher training. As Mezirow (1991) proposed, teachers have been learning new knowledge and skills by refining or elaborating and learning new meaning schemes. They are in the process of transforming meaning schemes and meaning perspectives. Before learning about the activity-based teaching method, seven years back, they used to ask to open their book in class and start teaching without any preparation. They had not heard anything about grade teaching and its provision in the government policy. Now, they have been doing grade teaching from grades 1-3. Among the teachers I interviewed, one of the teachers considered games as part of classroom activities. There is a risk of conducting more games in activity-based teaching. It requires more clarity among teachers on what activities are and are not.

The public school teachers also learned how to develop teaching-learning materials, particularly low-cost and no-cost materials. In my classroom observations, the teachers developed many materials and collected low-no-cost materials. They have used stones to teach math subjects in small grades. *Ambika said, "At the beginning, it was hard to develop a job chart, but now we develop it quickly and easily. We do paper cutting to develop materials while the children do other exercises. We develop some of the materials from home"* As required, the

trained teachers sit together to develop teaching-learning materials at the beginning of the academic year and whenever needed. They help each other to remind the process of activities learned in training and develop new activities and teaching materials for those activities. The teaching-learning materials developed last for 2-3 years. However, the materials in grades 2 & 3 of school A were old and needed to be replaced with new and fresh teaching-learning materials. The school head teachers have been providing the required materials and stationaries to develop materials.

The TPD is the training from which the government is aiming to bring transformation in classroom teaching-learning practices of public schools in Nepal. *Teacher Tika said, "After TPD training, we could not feel and lacked confidence that let us do this and that or make these changes in the classrooms etc. It started late and finished 1-2 hours early; the training used to run only for 2-3 hours. I had considered this training only for a training certificate, and the trainer was also not from outside. It was mostly theoretical except in creative art subject."* The TPD training is designed based on the issues raised by teachers. It is not found effective as compared to activity-based teaching training. All the teachers had developed a teaching improvement plan after the TPD training; however, one of the teachers said that she had not reviewed and referred to it for a long time. They stopped developing daily lesson plans and carried out teaching and learning in the class based on those lesson plans. It is found that the teachers and school management have not taken TPD seriously, and teachers found it no effective as it is supposed to be. Transformation theory focuses on content, process, premise and outcome; it requires revisiting and reviewing TPD content and process.

Making and Unmaking Teachers with Skills and Knowledge

Teachers have not been able to apply much of the new knowledge and skills learned as part of their professional development programme. Among the 50 different subject-based activities learned from child-friendly teacher training, both schoolteachers have been applying only 20-25 activities in the classroom. They have developed 5-7 new activities by themselves. *Ambika from school A said, "Whatever lesson we see, we start thinking whether we can do it this way or that way."* It was possible only because teachers were motivated by the training. As a result, they wanted to make a difference and show it to other teachers in the school and community or parents. Teachers said they could not apply anything from TPD provided by government authorities. It was mainly lecture and theoretical training, not focused on the activities that teachers could carry out in the classroom. It is found that teachers have developed different teaching-learning materials such as job charts, letter cards etc. School A has been doing CAS, whereas school B has not practised CAS. It seems school monitoring and supervision is essential, encouraging the teachers to continue or apply new knowledge and skill they have learned as part of their professional development programmes.

After the teacher training, the teacher realised gaps in teaching-learning pedagogy and process, perspective change of teachers, was the most significant supporting factor to motivate and be able to apply that new knowledge and skills learned as part of professional development. After the teachers experienced and practised activity-based teaching-learning, the teachers were found to be fully convinced and confident that activity-based teaching is best, and it is easy for both students and teachers. Students do learn better and remember for a long time when they learn from the activity-based method. The teacher training should combine with the training on material development too. Single-teacher pedagogy training may not work well, and teachers may be unable to apply it in the classroom. Refresher and enough follow-up or on-site coaching or mentoring is required. Working in a team between trained teachers, they help each other develop materials sitting together, help to remember the process of already learned activities, and develop new activities for teachers. It shows that training more than one teacher from a school is the best approach and works well to support each other whenever needed. The teachers are slowly shifting toward the same old practices and conducting fewer activities. Though there

were changes in teachers' practices, it seems their perspective was yet to change, and there were not enough supporting mechanisms, interventions and functions so they could be transformed and bring more transformation in the classroom.

The changes in teachers' perspectives seem more based on psychological codes and towards sociolinguistic but not epistemic codes. The teachers are yet to be able to see classroom teaching learning from a different worldview. Changes occurred in teachers' knowledge, attitude and feelings on ways of classroom teaching learning. In the case of child-friendly teaching-learning, though they have heard the word/phrase many times, it seems they realised the depth of meaning of it only after the training and practised it in the classroom.

This study found that there are challenges that teachers face while applying and trying to apply new knowledge and skills. Not all the teachers were equally motivated, some were more motivated than others, and some took it as a burden and workload. Here, it is found that teachers' readiness before attending training matters a lot to transforming learning into classroom teaching; however, nothing has been done to prepare teachers before attending the training. Not only preparation but also the content, process, and premises of teacher professional development programmes should be analysed critically based on local context, particular time and need etc. The school teachers of school A said that the regularity of students and parents' support to send their children regularly to school is one of the significant challenges, but this is not the case in school B. When students are absent, teachers must repeat the same lesson the next day. The students in school B are regular, and parents are involved in school activities; parents do ask for homework, even calling teachers in the morning and evening. School B is close to the highway and market, whereas school A is in the typical village of Gaupalika, where mostly Janajati, including Chepang, lives. *Both school teachers said, "We need to teach 7-8 periods each day; there is no leisure period, so we have no time for preparation and need to prepare materials at home too."* The number of children in the class to handle or manage by a single teacher is another challenge; in the case of school A, there are more than 50 students in each class, whereas there are only 15-25 students in each class, particularly primary grades, of school B. There is no provision for supporting teachers, and they need to manage by a single teacher. It is hard to check all the homework and classwork of students, only the teacher.

Moreover, the young children in grade one require one-to-one support and very hard to make them understand the instruction for some of the classroom activities. The Chepang family speaks their language at home, and the young children from this community also need to learn a second language. *Tika from school B said, "Our classroom, particularly the buildings with the roof zinc-sheet, are so hot and cannot stay in the classroom afternoon. We cannot do activities and teaching-learning in those rooms during the summer season."* It is found that the classrooms and their management also become a challenge to activity-based teaching learning in both schools.

In the grade teaching system, a teacher has been teaching whole subjects of particular grades such as in grades 1, 2 & 3, which made them easy to manage class periods as they wish; otherwise, it is hard to conduct and complete activities within a class period of 40-45 minutes. Parents are asking to give more homework to their children in the case of school B. However, it is not the same in the case of school A. Sometimes, when the teacher cannot teach all the subjects, parents make a call to teachers and ask about homework. Focusing on only several homework may also hamper quality teaching-learning, particularly in an activity-based teaching-learning approach. Parents of school B want the school to teach their children in English. Many teachers who are weak in English and old age face this challenge. School B has been managing its recruiting young teachers temporarily. The exam, which is resource centre based/level, has become another challenge; teachers need to finish lessons quickly as they need to complete lessons for the exam. Here, the quality of teaching-learning can be hampered. The exam is mostly paper-pencil tests or written text though the government has said 100% CAS in

grades 1-3. School B has not applied CAS and said that CAS allows passing all students though they are weak or poor in performance. Another aspect of implementing CAS is that it requires activity-based teaching so that teachers can assess students' understanding and performance while participating in classroom activities. It brings in a question that if activity-based teaching is applied, why do not apply CAS? Making and maintaining a portfolio of students' class teachers taken a burden for some of the teachers. However, this is a government provision, which is why the head teacher has not considered it seriously. It is found that newly elected leaders and government staff of Gaupalika are unaware of the activity-based teaching approach. It may require more collaboration with Gaupalika in future.

The approach of implementing activity-based teaching-learning or child-friendly teacher training seems to have started from the teacher level and only then moved towards school leaders. It missed making the child-friendly teacher training of school and their need. The school leaders should understand it correctly, own it and work jointly to make it happen. It means the school leaders and Gaupalika were not ready at the beginning. It was found that there were some gaps in the approach or process; it started with temporary teachers for whom the training was provided. As a result, they did not receive enough support and environment as they were supposed to get to bring the transformation in classroom teaching learning.

Changes in the classrooms and learners

Teachers' professional development ultimately brings transformation in school education, including changes in classroom teaching, learning and learning outcomes of the learners or students. Because of teacher professional development and other supporting factors, students' results are increased compared to previous years. *Ambika of school A said, "Once we teach students via activities, they understand well and remember for a long time."* Classroom teaching-learning and many other factors influence students' learning achievements or outcomes. The students are confident enough and do not afraid like students of previous years to speak in front of a mass and new people. They ask any questions, teachers. They make adjustments in the classroom so easily, make friends and work in a team. The students have also learned many life skills such as personal sanitation and hygiene, teachers at school A take the students to the washroom to make them clean at the beginning of the school period. There are changes in classroom teaching; teachers have been conducting activity-based learning and using materials developed by teachers and students collected locally and bought from the market. The classroom setup has changed, it is mostly floor sitting arrangement with P-form, carpet, cushion etc. The high desk and benches are removed from small grades, such as grades 1-3, as prescribed by the national child-friendly school framework of the Nepal government. Comparing the old classroom with full of dust, high desk and benches, and no teaching learning materials in the classroom; it is changed and is towards transformation. It shows that the changes for transformation in classrooms and among learners/ students have been seen to some extent.

Among the teachers interviewed, it is found that there are changes in their practices and beliefs to some extent; however yet to achieve transformation and transformative learning. Teachers have learned only via the professional development programmes organised by different agencies and have not tried anything on top of attending those training programmes. The teachers have confidence that new knowledge and skill, such as the activity-based teaching-learning approach, works well; however, they have not practised it fully for many reasons. Teachers should be able to constitute a new lens through which to see themselves or others (Nerstrom, 2014), which is yet to be achieved; there is a need for a paradigm shift in teachers. To bring perspective transformation, teachers need action (Mezirow, 1978). As Nerstrom (2014) said, it is found that they have challenged their pre-assumptions and experienced new knowledge and skill, such as activity-based teaching-learning; however, they are yet to develop their new assumptions and experience transformative learning. Transformative learning then

becomes a new experience. Once transformative learning occurs, individuals are more receptive to experiencing it again. Also, once transformative learning occurs, adults are unlikely to revert to their prior beliefs. Teachers have reduced to practising the activity-based teaching-learning approach, which shows that they have started returning to the same old method. It requires more long-term collaboration and support for public school teachers in their professional development to let them experience transformative learning.

Conclusion

The teachers have received different training; not all are primarily teaching-learning focused, but government authorities constrain them. Not all the training, including TPD, is practical; teachers have not been able to apply it in the classroom, so the content, process, pedagogy and premises should be critically analysed and reviewed. There was a lack of ownership of teacher professional development programmes among teachers and school leaders, so strengthening the school climate or environment is necessary to overcome the challenges teachers face and transform classroom teaching learning in public schools. The teacher's paradigm is yet to shift though there are changes in the practices of teachers. Teachers are convinced and have practised some new knowledge and skills but have not transformed internally. They are reverting to the same old teaching-learning method after 5-7 years. It shows the lack of commitment and accountability from a different level. It requires more long-term collaboration and support for public school teachers in their professional development to let them experience transformative learning and transform Nepal's public school education.

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Enhancing Harmony in Nepal Schools with STEAM Approach

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Abstract

In recent years mathematics learning at the secondary level of Nepali schools is not satisfactory. This study shows the pedagogical shift from traditional lecture-based practices to integrated STEAM practice. This is participatory action research where six teachers, including the researcher, are the participants. This study aims to see the teachers' transformation through intervention in their professional skills. The study concludes with the positive impact of the STEAM approach on the teachers' practices and students' achievement.

Background

This study aims to see the teachers' transformation through intervention in their professional skills. In addition, this article explores the transformation of a Nepali school and its harmonious impact. This is participatory action research (PAR) where six teachers including me had collaborated for a common goal, students are considered as secondary participants. The goal was to make our classrooms participatory and to integrate the compartmentalized subjects through STEAM (Science, Technology, Engineering, Arts, and Mathematics) pedagogy. The context of this study was a private secondary-level school and the intervention was conducted for 4-5 weeks. Based on our experience as teachers and students, we found that our teaching and learning approach in mathematics education at any level is guided by conventional lecture-based and teacher-centered, and linear (Shrestha, 2018) because of which our system failed to get the desired outcome from mathematics learners and promotes disengagement in the classrooms. This is a mathematics-focused intervention where mathematics is at the centre of the STEAM projects. Four subjects English, Science, Social studies, and Computer were together in designing the projects for this study. Integration of other subjects such as math or science is influenced by the music and arts of STEAM pedagogy to enhance students learning (Dail, 2013; Root-Bernstein, 2003) is found as a milestone in learning mathematics and science which can improve necessary 21st Century skills like creativity, critical thinking, collaboration, and communication (Daugherty, 2013; Quigley, Herro, & Jamil, 2017). The transformative journey explored here can inspire teachers along with helping them to cope with challenges they might face while adopting STEAM pedagogy.

Enhancing Harmony through STEAM Pedagogy

PAR starts to solve the problem while collaborating with co-researchers. Initially, it starts by working on minor changes that the participants can control and manage. After the completion of the plan, they can generalize it to a more extensive pattern of change. Self-reflection and critical self-reflection on their actions make them more mature to deal with the situation. Participants present evidence on how they articulated the thematic concern while holding their group together, and on how they established authentically shared agreements in the group. As a transformative approach, STEAM pedagogy connects the disciplines with each other along with learners to real life. 'A' in STEAM adds to how humans need to live which is the common goal of the current world. The theme-based learning strategy and integrated approach integrate the learners' life into the conceptual framing of academic language. Our experiences in implementing STEAM projects and STEAM practices at the secondary level

foster harmonious practices which we had not experienced in our compartmentalized teaching and learning practices.

Joyful Teaching and Learning

Joy is central to learning and joy for learning is central to human integrity. The importance of affective domains and realization of what is teacher doing to make learning joyous can strengthen teacher-student relationship. The power of a smile, a kind word, an honest compliment, and a listening student's ideas and thoughts give them enough courage and strength to take risks in their plans. "*Children are far wiser than we think; we should have trust in them*" argued by computer teacher. His progressive ideas and innovative thinking always motivate us (remaining participants) to critically reflect on our practices. Further he added "*if students are given enough space to share what they have learned and what they can do then it can cultivate safe, creative, meaningful, and accountable but joyful space for learning*". Another participant (English teacher) also added that "*teacher need to be calm in all the situations and think like a lid in their actions, we need to notice students struggle and encourage them if they are trying.*" In this regard, one of the male students in his reflection mentioned that:

Nowadays our teachers are teaching in a different way. This helps us in relating one subject to another. I am enjoying what is happening with us in our classes. Before this, I have not got such a chance to learn different subjects under a single theme. We worked in many groups which not only contribute to this study but helps us to build healthy relationships with each-others in our classrooms.

The reflections of students, either in written form or in their in/formal responses in the classroom and outside make me feel like they are enjoying the integrated approach. One boy (Mr. Khadka), a so-called low achiever student in mathematics but a very good basketball player shared his thought;

Sir, nowadays I have just started to enjoy the classes, the activities motivate me in the learning process. Sir, now I can solve that problem which we had solved together. We calculated the area and cost of the umbrella. I have tried one more question from our textbook. I solved that as well. Other friends were also telling that they are enjoying the classroom nowadays. Students same like me (so-called low achievers) are also motivated in learning and writing those projects.

I realized that our traditional lecture-based approach to teaching and learning practices considered the students as a consumer of knowledge disempowering and demotivating the students from learning and creating new ideas. On another hand, STEAM pedagogy and practices give ownership and agency to the students. The liberty in exploring the ideas and integrated approach makes them realize that mathematics is also a part of our society. It is

evolved from the real-life context and can be connected to our daily practices as



well.

Contextualization of the Ideas and concepts

STEAM approach is not limited to connecting the disciplines however it connects the learners' real-world practices. To address this, each project was designed lively enough to cater the need of real-life scenario of the learners. It was quite difficult to address the multi-cultural perspectives in our plan in the beginning but later we found that the learners in today's class are hybrid in these perspectives. We were working in the capital city of Nepal and had a diverse group of cultural practices in the classroom. But what I found is school students are able to respect each other cultures and easily delve into them. I even found that they enjoy more with others' cultural practices. In lively classrooms, an integrated approach along with the contextualization of the ideas were the major criteria in designing plans. The student's engagement in the activities like role-playing, drama, and fieldwork give a close impact on the learners' practices. After the implementation of 2/3 plans from the above setting we (I and my participants) were able enough to contribute to the contextual activities in our plan.

Sir, students are speaking in English. This is already connected to their practices. (English Teacher)

Social study is evolved from society. It is already contextual. (Social Studies Teacher)

Mathematics is everywhere in society. Nothing can be separated from mathematics. (Math Teacher)

Everything is science. We cannot separate ourselves from the notion of science. (Science Teacher)

It is the technological era. Students learn to use mobile phones and laptops from an early age. Almost all families in our context have at least a mobile phone with them, so students are familiar with the technological stuff. (Computer Teacher)

Those kinds of responses were there from the participant teachers when I first discuss contextualization of the textbook knowledge with them. With those informal discussions, I found them less aware of the notion of contextualization. We had discussed and workout in several meetings to change their perceptions. During those meetings, I shared some of the projects we designed for our course works. Those projects help me to convince them easily. And when they were familiar with the idea of contextualization it was easy to shape our plans and activities which may be addressed the real need of the students. I found PAR as a methodological stance in this study helps me to integrate abstract knowledge into their cultural practices. This orientation motivates the learners in their learning and grooms them to tackle the problems in their real-life settings.

ICT's Integration and use of Computers

I can see the great paradigm shift in our colleagues' teaching practices from teacher-centric to student-centric approaches with the help of computers. The proper use of interactive whiteboard and projector has been done during the implementation of STEAM projects. Not only the whiteboard and projector, I, along with other friends are able to use Google Classroom and its different functions to track the records of the students. We share our lesson plans on Google Drive, we collaboratively work on making lesson plans, and we give feedback to each other. I had doubts regarding time management, but this issue has been sorted out, and the proper plan and collaboration with other subject teachers had cut off the unnecessary or avoid replicating activities in the classrooms. (From the reflection of the Computer



Teacher)

The role of technology was crucial in this intervention. The majority of the discussions and informal meetings were conducted virtually. The use of Google docs, Google Meet, and Google slides were the major areas of our collaborative work. In doing this the teachers like English, Social studies, and Mathematics were not familiar with the ICT tools besides zoom. For them, I along with the computer teacher conducted a one-day guiding session on Saturday and made them a bit comfortable in using those tools from laptops and from their mobile phones.

Reaching up to the end of the second cycle I found all the five teachers were friendly with those tools which we had integrated into our plans. However, we had introduced limited ICT tools in this plan. I believed that the intervention cultivated a thirst for computer learning in them. “Sir, now I can use all those tools which you have suggested in this one month’s time. I think I may explore other tools as well if I need” argued the English teacher who was the least

ICT-friendly participant in our group. The experiences of the other participants were also similar. All feel the changes in their ICT skills and mention their positive attitudes towards the use of ICT tools in their professional practices.

Emotions in Mathematics Classroom

Emotions here can be expressed as the reaction of the students in the learning process. Students' emotions in any classroom are not only limited to their learning but are affected by the teacher's behaviors and their academic treatment towards them. "*I have a very good command in my classroom, no one can speak and disturb me in my classes, and pin-drop silence makes me very comfortable to deliver my lectures*". This is how the mathematics teacher has shared his experiences in an informal setting with me. But when I read his reflection after the intervention of the first cycle plan, I found a different personality in him, he used the words like energetic, fear, joy, pride, interest, etc. refer to the emotional factors, and he clearly wrote how emotionally he has been attached to the students and able to think out of the box. The remaining participants of this study also express similar kinds of feelings about their past experiences somewhere in their reflections or during the informal talks. After this intervention plan, I experienced different experiences in the participants' responses. During the implementation of this STEAM plan, teachers in this study experienced positive student emotions in their classes. All the participants' teachers in this study reflect their critical thoughts in their regular practices and are in favor of positive emotions of teachers towards the students and their pedagogical practices and positive emotions of students towards the teachers and their study.

"*I feel very happy if I can solve a problem, I even want to solve problems, and I feel motivated*". This was the response of any student from the intervention class. He was considered a low-achiever student and now he is trying his level best to improve. It was not like he has a drastic change in his performance after the STEAM intervention but we observed his positive attitude towards learning. Such experiences from the students make me realize the importance of emotions in the mathematics classroom. It can be either a teacher or a student. This intervention makes us realize that to imagine a student-friendly class; as a teacher, I need to convert their fear and boredom towards the mathematics teacher and mathematics contents to relief and interest. If they are motivated and engaged in the learning process then obviously they can learn how to learn and they can learn how to implement what they have learned.

Conclusion

It is concluded that the power of a smile, a kind word, an honest compliment, and a listening ear toward the students can give them enough courage and strength to take risks in their plan. The importance of the affective domain in mathematics classes is explored in this article; teachers need to be calm in all situations and notice students' struggles and encourage them if they are trying. Contextualization of ideas and concepts can make mathematics classrooms lively and motivate the learners to learn from their own context. It is also found that the participant teachers have got fluency in computer languages. After this intervention, they feel comfortable and familiar with the ICT tools and applied them in their pedagogical practices. All feel the changes in their ICT skills and mention their positive attitudes towards the use of ICT tools in their professional practices. The words like energetic, fear, joy, pride, interest, etc. refer to the emotional factors in any classroom. This intervention makes us realize that to imagine a student-friendly class and motivate them in the learning process.

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Collaborative Practices in English Language Classrooms: Changing the ways of Teaching and Learning

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Abstract

This presentation explored the way English language teachers conceptualize collaborative teaching practices and the way they engage learners in the process of learning. In practicing collaborative practices, English language teachers face challenges such as group formation and classroom management to implement the collaborative approach in practices. The presentation set to understand English language teachers' practices of collaborative approaches in English language classrooms in Nepal through their life-stories. Learning is socially assembled because learners explore ideas when they collaborate and engage with their teachers or peers. The learners' engagement and discussions with their teachers and peers in a group led them to understand and reflect their innovative ideas. In this context, I adopted collaborative theory (Pritchard, 2009, Gitterman, 2008) that the students are facilitated to help each other to enhance and reflect their pioneering ideas. For this, I adopted narrative inquiry as a research method to generate information from the participants about their English language teaching experiences gained in the Nepalese academia. I interviewed my participants to generate information and recorded the interview sessions; the recorded information was transcribed and coded to generate themes in the process of analysis. The themes were interpreted and discussed in line with the theory of collaborative approach to language teaching and learning. The outcomes of the study are expected to contribute to the discourse of collaborative practices in English language classrooms with special reference to English teaching in Nepal. In addition, they may contribute to the way teachers and students work collaboratively and accomplish the task of exploring the ideas. As I tried to make the meaning of the stories of English teachers through my writing, the study is expected to make a difference in pedagogical practices.

Introduction

This research study is an exploration of collaborative practices of English teachers in the context of Nepal. This study is the manifestation of experiences of my learning and teaching, of both in schools and colleges. The inspiration for this research sparked from my past experiences, which provided me insights to carry out this research study. I understand that teaching is about the creation of knowledge and meaning by individuals, not simply the transmission of information (Lyons & Laboskey, 2002). In this regard, my concern was to explore how English teachers face difficulties, understand, conceptualize, and transform professionally to enrich the collaborative practices. Similarly, this study scrutinized the way teachers learned and taught in the past and they renovated through the process of interaction and higher education to the collaborative teaching and learning. More specifically, this study inspected how teachers of the English language in Nepal gained and enriched their collaborative practices in English language classrooms.

Reflecting on My Way of Learning English

I was born in a rural area of Dhanusha district of Province Two. My mother tongue is Maithali which is widely spoken in Terai. I completed my primary education in the same village where I was born. I spoke Maithali language at home whereas medium of instruction (MOI) in school was Nepali. I had to study in a language that was different from that of my own. My language learning in the beginning was complex because of the differences that existed in the home

language, school language and learning language. All the textbooks were available in the Nepali and the English language. Therefore, the local school was like an alien to me.

I started learning the English language sub-consciously from class four with rote learning, vocabulary, translating word meanings into Nepali though I did not fully understand them I used to think that there were no use and meaning of English into my life. My parents always forced me to learn the English language rather than Nepali because they believed that learning English language would be better for me to get a job and continue my higher studies. After completion of my primary education, I moved to a place which was four kilometres away from my home for my secondary education.

In my secondary education, I mostly focused on learning the English language, but it was difficult for me to translate and understand it mixing up with three languages i.e. Maithali, Nepali and English. I used to think that my language was not meant for school learning. I started learning English through vocabulary and memorizing along with doing my household chores. Mostly, I learned it through translation like thinking, memorizing, and understanding in Maithali and Nepali before understanding in English. My English teacher was quite strict and used to teach the English translating into Nepali. I used to enjoy my class though I did not fully understand the lessons taught. I never felt that my teachers' teaching approaches were meant for my life-long learning because he dominated the entire teaching and learning process and I was a passive learner.

I gradually became able to read my English texts but understood little because I could not memorize all word meanings, texts, spelling, and the rules of grammar as I thought all these had little meaning in my life. During my English classes my teacher used to stand me on the bench, and I had to offer my both palms to him for getting cane sticks for each mistake that I made. Similarly, if I failed to memorize spelling of words with Nepali meanings I was asked to do sits-up at least ten times for a single mistake. What my teacher conveyed was the final decision for me. I could not argue with him. My school learning was quite terrifying for me because neither my parents inquired nor my teacher in school as to what was my interests and how I wanted to learn.

Purpose of the Study

The purpose of this study was to explore the way English language teachers understand, conceptualize, and narrate their experience of collaborative practices in teaching the English language in Nepali classrooms. More specifically, this study concentrated on the challenges and their coping mechanisms of teaching English applying the principles of collaborative approaches to learning.

Research Questions

The following research questions guided this research:

1. How do the English teachers understand and conceptualize the practices of collaborative teaching and learning in their language classrooms?
2. How do the English teachers tell the stories of engaging students in teaching and learning in their language classrooms collaboratively?

Narrative Inquiry as my Research Method

I adopted narrative inquiry as my research method because it is associated with lived experience of an individual and connected with the life stories. My inquiry was teaching and learning, so it was the practical experiences of the participants to explore their learning and teaching stories through their narratives and lived stories. The teachers' experiences and practices in/outside the classrooms helped me to analyse their views, understanding and activities in teaching and learning collaboratively.

Narrative inquiry was relevant to this research because it helped me to understand the inner psychological worlds of the English language teachers and learners and the nature of language teaching and learning as social and educational activity (Barkhuizen, Benson, & Chik, 2014).

Therefore, narrative inquiry was well suited to addressing the complexities and subtleties of human experience in teaching and learning. Sartre (1964) mentioned his words about narrative inquiry as:

People are always tellers of tales.
They live surrounded by their stories and
The stories of others; they see everything
That happens to them through those stories
And they try to live their lives as
If they were recounting them.

(as cited in Webster & Mertova, 2007, p. 1)

Teachers Vignettes as Information Generating Approach

In this research study, I used teachers' vignettes as information generating approach. The teachers' vignettes were the lived experiences and real stories of teachers teaching the English language in higher/secondary level. There are four story tellers in this research study, they are (pseudonyms) Kaushal, Manoj, Neetu, and Ganesh. Except Neetu, they all are young and energetic male teachers. Neetu is a brave and clever female teacher. They all have shared their stories of understanding and enhancement of collaborative practices from the period of a learner in a school, novice teacher and in-service teacher and their turning point. They all started their teaching and learning when they were bachelor's degree student. They all have got the experiences of teaching and learning from rural to urban and urban to rural region.

Approaches to Collecting Stories

The research was conducted using teacher's vignettes and the vignettes were recorded through the audio recorded device system. The participant teachers were informed as to their voices would be recorded and transcribed and transcribed field texts were given to them to verify their responses. Though there are various approaches to collect stories that can be used for narrative inquiry, such as survey, observations, interviews, transcripts, documentation, reflective teachers' journals, and diaries, (Webster & Mertova, 2007). I used interviews for collecting stories.

Procedure of Analysis

As I began my narrative journey to analyse views, events and understanding of my participant teachers of teaching and learning, I was much more enthusiastic to hear their turning points journey of teaching and learning that they shared to me. I was thrilled to see the participants curiosity and readiness to reflect more deeply on their experiences and insightful stories reflection of their past to the present. I felt motivated when they openly shared their experiences of learning and teaching. In this process, I listened to their recorded audio texts many times and transcribed in Nepali and later I translated the texts into English. To narrate their stories, I attempted to incorporate their voices, words except grammar. In doing so, each of the transcription was reviewed by listening the recorded voices and significant statements were marked and highlighted to generate the meaning.

Likewise, after developing the storyline, I constructed the participant teachers' narratives with the collaborative perspective and continued writing to theorize specifically Alex Gitterman, (2008) collaborative learning and teaching which mainly focused on interaction and sharing, Alan Pritchard (2009) ways of learning, and Liane Wardlow and Eian Harm (2015) using appropriate digital tools to overcome barriers to collaborative learning in the classrooms. I used and applied their collaborative theory because they immensely helped me to construct and retell the stories of my participants.

Interpretation and Meaning Making of the Vignettes

The most important point of each research underlies how a researcher generates the data and makes meaning. In this research, I prepared two research questions to explore teachers' understanding on collaborative teaching and learning practices and how they worked, engaged,

and collaborated with their students. For both the questions, I started with probing questions to inquire how they understand, conceptualize, and engaged with their learners. Mostly, I inquired my participant teachers to elaborate their views and understanding with examples so that they could dig in-depth of understanding and practices of teaching and learning to explore the questions. It helped me to narrate their stories through listening and learning of their practices then and now. I generated the information data through recorded interviews, field-texts, and journal writing. The collected data were transcribed and coded to make themes and sub-themes. Out of them I organized and categorized them in themes and sub-themes and repeatedly involved in listening and writing so that I could verify them. I analysed and interpreted participant teachers' narratives to make meaning out of the data provided to me incorporating their voices, opinions, and words except the grammatical rules.

Key Insights

I envisioned several steps of analysis and interpretation of the collected information which geared my insights to think, analyse and experience of collaborative practices in English language classrooms. The narratives of the participant teachers were the beliefs, culture, and history for me to understand and experience the social relation and collaboration in the context of teaching and learning. The teachers' stories were the best experience for me to review the experience of teaching and learning.

I discussed three themes as the 'answer' to the research questions. These themes were devised based on the narratives of the story tellers: The first theme, I discussed teaching English through collaborative approach. I also discussed how participant teachers understood collaborative practices. I developed my insights that the teachers were knowingly and unknowingly practicing the collaborative approaches. Teachers were not completely aware of it and struggling a lot to overcome the problems faced in their teaching and learning. I understood that teachers' dedication and motivation towards teaching and learning led them to understand the collaborative practices in English language classrooms.

In the first theme, I analysed the engagement, group formation and working together with the students of my storytellers regarding English language teaching and learning practice collaboratively. The participant teachers' narratives revealed that their engagement with their students, sharing information and engaging in higher education played a pertinent role to make their classrooms collaborative.

Likewise, in the second theme, I discussed and analysed how participant teachers managed their classroom in collaborative setting. As per the research problem, classroom management seemed challenging in collaborative learning. Despite the difficulties, the participant teachers managed their classroom well through their experience led teaching and expertise. They were able to do that because they had a story to tell their students to motivate and work in a group. The participant teachers' devotion in teaching boosted them to learn and explore many ways to get engaged with their students. The teacher's active role in creating the opportunities for their learners led them feel trust and respect. Moreover, I developed my insights that teacher means not supreme commander instead they are the facilitator to create the path of their learners.

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Philosophical Perspectives of STEAM Program: A Case Study in Nepal and Indonesia

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Abstract

In recent years, STEAM has become a multidisciplinary integrated model which is believed enabling to develop 21st century skills for students. STEAM enables students to critically identify a problem in their community, creatively solve the problem, and collaboratively communicate the problem solving with peers and teachers. Some studies found that STEAM design activities can enhance students critical and creative thinking skills. Thus, many universities which produce prospective teachers have attempted to develop and establish STEAM education program. The program can prepare their pre-service teachers to be more skilful with the 21st century skills needed. Two universities in a partnership have also designed STEAM program in their universities, namely Universitas Negeri Surabaya (Unesa) from Indonesia and Kathmandu University from Nepal. However, these universities have different approach to implement STEAM Education in their curriculum. The department of elementary teacher education has embedded a STEAM unit in their curriculum, whilst Kathmandu University has opened master programs of STEAM Education, both for master of education and master of philosophy. The discrepancy of STEAM Education model of implementation between these two universities is interesting to be studied, because the previous research in STEAM Education is still very limited in higher education context. Previous studies in STEAM Education have been done from early childhood settings to higher education level. Nevertheless, most of the research is on early grade levels. Meanwhile, research on STEAM Education which focuses on higher education is not properly contributed in the whole discourses. As a consequence, more studies are needed to open broader discourses of the implementation of STEAM Education in higher education. University as the highest education institution takes an important role in considering STEAM program in their curriculum, especially those are focusing on producing prospective teachers. Moreover, the consideration should have rationales and even philosophical perspectives due to academic environment on campus. Therefore, this study attempts to find the answer of a question “What are the rationales and philosophical reasons behind the decision to establish different models of STEAM Education in Universitas Negeri Surabaya and Kathmandu University?”

Peer Pedagogy for Promoting Peace: A way of Knowing, Being and Becoming

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Abstract

This paper explores and designs the general template of holistic curriculum framework to be implemented to enhance the child-centered learning pedagogy streamlined to enhance three key learning domain of cognitive, emotional and action to address the thinking (creative), feeling (motivation) and work (action) required for a holistic framework. The key question is “ How to make students to think, motivate and engage in the holistic learning system ?” To address this research question, I am going to use Auto/ethnography within a multiparadigmatic research design. This approach will enable me to explore and explain the holistic phenomena like peace motivation while excavating the epiphanies of peace motivation practices during my professional career as a multi role teacher and a head teacher in the Nepali institutional and public schools. While conducting inquiry, I will use secondary research studies as narrative data and template of live lesson plan curriculum framework of classroom and other stakeholders of the school system. For writing stories of my participants’ experiences, I will be using the narrative method of writing as it will enable me to make visible the process of my own critical self-reflection of peace motivation practices as a multi role teacher and a head teacher and help me express my subjectivity through classroom epiphanies and reflection that enhances the transformative sustainable pedagogy

Keywords: Peace Motivation, epiphanies, auto/ethnography, multi-paradigmatic research design, cognitive, emotion, engagement.

Background

Learning and facilitating the learning process is an abstract and complex process as it deals to prepare a raw child into a knowledgeable, analytical, critical and creative human being. At one time it was the aim to develop the philosopher but in 21st century world it is more geared towards producing happy and prosperous human being. As defined, learning is “A persisting change in human performance or performance potential as a result of the learner’s interaction with the environment” (Driscoll, 1994, pp. 8-9). Learning is also elucidated by Weinstein & 4 Mayer (1986) as “The relatively permanent change in a person’s knowledge or behavior due to experience” (p. 1040). Yet there are many contesting perspectives, approaches and outcomes being debated and argued.

In these gaps, this papers emphasizes more on process or framework that tries to blend best practices on three domains of learning pedagogy namely (i) cognitive domain, (ii) emotional domain (iii) construction domain or engagement (social interaction/peer or team). Rather than dealing separately each domain both theoretically and practically the paper explores their integral implementation through a blended curriculum framework and come up with necessary design framework based on the experiential practices within the classroom.

Statement of the Problem

The schools of Nepal, needs to change their pedagogical practices and update their curriculum to address the current demand of the time. As argued by Poudyal (2013), the empirical findings of Nepalese institutional schools reveal that classroom and school pedagogy are based on classical and traditional autocratic and authoritarian type which is unable to address the fear/insecurity aspect of schools’ teaching/learning practices.

There are cases where teachers harass students by giving low marks in unit tests, homework and intentionally fail them in exam to satisfy their anger and irritation that the students pose during their class and school hours. This danger of enmity and revenge scenario gets developed unknowingly between the teacher and child relationship if discipline issue is not handled appropriately. There is lacking of humanistic learning environment with integral transformation in learning (Luitel & Taylor, 2009).

Purpose of the Study

The purpose of the study is:

- a. The purpose of this research is to discuss, explain and explore the peace motivation peer pedagogy framework from the perspective of head teachers and teachers as an empirical study. It inquires on how I/Others have been using peace motivation peer pedagogy as a head teacher and a teacher in schools and classroom.
- b. To explore and explain my lived experiences of peace motivation peer pedagogy framework in school community, which ensured motivation and gave me the feeling of peace motivation empowerment over 20 plus years of working as a head teacher and teacher using the auto/ ethnographic method.

Research Questions

How do I/others, have been using peace motivation peer pedagogy framework as a head teacher/teacher in schools/classroom? Sub questions:

- a. How to transform cognitive, emotional, constructive learning to peer pedagogy then to peace motivation in school community?
- b. How are the disempowering forces that compel me/others to adopt non/peace motivation practices?
- c. How are the integral peer pedagogy and strategies of a head teacher and a teacher to implement peace motivation peer pedagogy framework?

Literature Review

There are many literatures regarding each terminology of the title “Peace Motivation Peer Pedagogy Framework”. Basically, the literature review is distributed over the three key domains of learning pedagogy namely cognitive domain (thinking) , emotional domain (feeling) and the construction domain (engagement).

Cognitive domain literature of learning

Cognitive psychologists are interested in the processes that work within the mind and how these affect our behavior. Cognitive psychologists study concepts such as attention, memory, decision making, language development and how cognitive abnormalities can impact on how we behave. The mind actively processes information that comes in from our different senses. Cognitive processes mediate between stimulus and responses. Sometimes this process is compared to a computer processing of system cycle like input, process and output(Russell et al. , 2016).

Emotional domain literature of learning

The emotional domain basically corresponds with biological approach of learning. It deals with emotions, behaviors and cognition are controlled by biological systems and processes, such as evolution, genes, the nervous system and hormones that impact in learning process. It can be investigated by manipulating and measuring biological responses, such as eye movements, brain activity and pulse rate (Russell et al., 2016).

Construction(engagement) domain literature of learning

The constructivist model can be summarized in the statement: Knowledge is constructed in the mind of the learner. It has been described in somewhat greater detail as follows Learners construct understanding. They do not simply mirror and reflect what they are told or what they read. Learners look for meaning and will try to find regularity and order in the events of the world even in the absence of full or complete information(Von Glasersfeld, 1984). Von Glasersfeld (1983) has repeatedly described the construction of knowledge as a search for a fit

rather than a match with reality. In the constructivist model, knowledge is assumed to fit reality the way a key fits a lock.

Vygotsky was proposing that children's understanding is shaped not only through adaptive encounters with the physical world but through interactions between people in relation to the world--a world not merely physical and apprehended by the senses, but cultural, meaningful and significant, and made so primarily by language (Edwards and Mercer, 1987).

Peace motivation Learning theories

My agenda on peace motivation practices is grounded on what Whitehead (1989), the founder of Living Educational Theory, argued, "A living theory is an explanation produced by an individual for their educational influence in their own learning, in the learning of others and in the learning of the social formation in which they live and work" (p.104). My living on peace and peace practices are the reflections of explanations of my narratives about epiphanies based on peace practices through which I can uncover the meanings of my own relation to my non/peace practices with others as a teacher/head teacher in the school community.

Methodology

I am going to use auto/ethnography as the key methodological referent to account for my paper on peace motivation peer pedagogy as a head teacher and a teacher. I treat auto/ethnography as an insider's methodology, which focuses mostly on my personal, social and cultural accounts (Taylor et al., 2012). This method of inquiry enabled me to focus more on cultural self-knowing with reference to the meaning and understanding of peace practices inside classroom and school community. It further enabled me to reflect on how my own learning on peace, peace practices relate and influences my living and working with others in peace practices in my sociocultural setting (Whitehead & Huxtable, 2016).

While reading through various literature on auto/ethnography, I came to know that this methodology is a poly-genres with many versions (Denzin, 2005). According to Atkinson (2006) auto/ethnography is radical while Anderson (2006) views it as analytical. For Ellis (2004) autoethnography is evocative while its experimental for Denzin (2009) but for Taylor (2012) it is transformative. Perhaps, it seems an intellectual tug of war over creating distinctions among the genres of writing with the lens of language game and defining their own criteria of expressions of lived experiences. This multi-genres quality fits my inquiry on peace practices with key theme the "Peace" an umbrella concept argued by Galtung (1967). Therefore, the purpose, to me, is to get engaged with the agenda of transforming self/others within a particular 'cultural realities' (Hayano, 1979, 102) through a process of being and becoming.

Epiphanies and Narrative Data sources

As I get engaged in the process of autoethnography, I will be combining the characteristics of both autobiography and ethnography. As a autobiography writer, I will be retroactively and selectively writing about my past experiences which will include my "epiphanies"-remembered moments perceived to have significantly impacted the trajectory of my personal life (Bochner & Ellis, 1992; Couser, 1997; Denzin, 1989), these could be the existential crises that forced me to attend to analyze my lived experiences (Zaner, 2004).

Classroom live lesson Plan & Curriculum Practices and Reflective Primary data sources

As a classroom teacher, I have developed a lesson plan or curriculum designs named as "Motivational Peer Activity (MPA)" and "Think-Create-Share Activity" and have implemented for many years, over 10 years. A sample curriculum is :

Primary data as Sample Curriculum Peace Motivation Peer Pedagogy Framework

Computer Lesson Plan for Grade 8A & 8B

Learning objectives: Students will be able

- a. To understand and know the conceptual issues of computer in chapter 3,4,5,6 and 7.
- b. To apply computer machine and different software in their day to day work and solve the various computer related problems.

- c. To form/work in team and develop the skill of communication/collaboration
- d. To create/develop, implement and refine computer technical skills confidently
- e. To respond critically, listen with patience, analyze and respond to queries in a positive and respectable and responsible way

Lesson Procedure

Class Activities	Lesson Procedure/SEL components	Time
Meditation or Story Completion Activity or Brain Gym or Motivational Peer Activity (MPA)	<ul style="list-style-type: none"> Students are made ready for class by various warm-up or the short SEL- activities like “Meditation activity” or “ Story Completion Activity” Or “ Warm-up games or Brain gym exercises”. They asked simple questions as brainstorming like “ How did you feel ? Did anything came in your mind ? 	15min
Card Presentation Activity [Social-Emotional-Learning embedded]	<ul style="list-style-type: none"> Once, warm up activity is finished, then “Card Presenter” team is called and asked them to start their presentation. The Peer is assigned with co-host/sharing and asked them to take over the class command. As these Peer teams (students paired in groups of two students each) are pre-assigned/given enough time to prepare/research/create under TCS(Team-Create-Share-Card presentation model), they are so efficient , they take over the class and start the slide and start presentation. 	15 min
Educational Activity [SEL blended too]	<ul style="list-style-type: none"> Once each team finishes their “Card Presentation”, then they execute their “Educational Activity” which might consist of Bingo/Kahoot game/Guess-Lies/Morse Code decoding etc... many mores as they have to prepare unique activity. Sometimes they come up with unique/ creative activities. 	15min
Q/A (Question/Answer) session	<ul style="list-style-type: none"> As the group finishes their “Card Presentation” and the “Educational Activity”, then there is “Q?A” session where presenting peer have to address the questions asked by the other students in the class. 	10min
Reflection with Trio-Feedback and Assessment Session (Trio-FA session)	<ul style="list-style-type: none"> Trio-FA session is a reflection done by three separate groups. This is the three consecutive TCS-groups that follow a particular group will do a peer feedback and do the marking. 	5min

Evaluation/Assessment of Lessons are done with the following scheme.

S.No.	Assessment Criteria	Marks
1	Motivational Peer Activity (MPA) blended with SEL approach	
	a. Social domain	5
	b. Emotional domain	5
	c. Learning domain	5
2	Card Presentation (Research based Project Work)	10
3	Educational Activity (Performance /Role play)	10
4	Report Write up (Educational Activity and MPA activity)	10

5	Home work assignment [Book Exercises]	10
6	Classroom Attitude/Attendance	10
7	Class participation/Engagement	10
8	Class Test/Exam	10
9	Technical Skill	10

Secondary Narrative Data based on various learning studies

Secondary narrative data are based on various studies based on cognitive, emotional, constructivism, social learning pedagogies.

Narrative data for cognitive learning

For example input as the information received by senses, processing as information analyzed and output as the information responded to The three studies (i) Andrade (doodling) which suggests that doodling can improve concentration and the memory of a conversation (ii) Baron-Cohen et al.(eyes test) which investigates how a lack of a “theory of mind” in adults with Asperger’s syndrome or autism can result in problems recognizing emotions (iii) Laney et al. (false memory) which explores how false memories can impact on memories and beliefs in relation to eating asparagus illustrate the main assumptions of the cognitive approach which suggests that (i) behavior and emotions can be explained in terms of cognitive processes such as attention, language , thinking and memory (ii) similarities and differences between people can be understood in terms of individual patterns of cognition.

Narrative data for Emotional learning

Based on the psychological experiment of Caneli et al.(2000) found an association between individual experiences of emotional intensity for stimuli with amygdala activation and subsequent memory for these stimuli, suggesting that the more emotionally intense image is, the more likely it will be remembered (Caneli et al., 2000). The next study is done by Dement and Kleitman which is a study using a range of methods to investigate the relationship between dreams content and eye movements (Dement & Kleitman, 1957). Similarly the study of Schachter and Singer(1962) which is an experiment that explores the of role two factors, cognition and physiology , in our experiences of emotions.

Narrative data of engagement learning based on constructivism

Peer pedagogy is related with social engagement that is choreographed in both peer as the environmental engagement with materialistic culture and human interaction with group where thought and language form the symbols of learning domain (Vygotsky, 1962). Three studies form the narrative data based on learning approach of psychology. They are “ Bandura (aggression)” which is based on social learning theory and looks at the effect on children’s behavior of seeing an adult behaving aggressively (Bandura et al.,1961) , “Saavedra and Silverman (button phobia)” which is a case-study of a young boy with a phobia of buttons and the use of classical conditioning to help reduce his fear and disgust (Saavedra & Silverman, 2002) .

Narrative data for Social approach of Peer learning

The exploration of three studies as narrative data based on the social approach of learning enhance the peer pedagogy or social team dynamics for effective learning through team spirit that fosters the key elements of progressive learning of communication and collaboration. Milgram (obedience) which is based on the conflict between individual conscience and obedience to authority and considers how far a person would obey instructions which involved hurting another person (Milgram, 1963). The second study is about Piliavin et al. (subway Samaritans) which looks at how bystanders behave in real-life situations and factors that affect their desire to help, including diffusion of responsibility (Piliavin et al., 1969). The third study is about Yamamoto et al. (chimpanzee helping) which considers pro-social behaviour and

instrumental helping in chimpanzees, and looks at whether chimpanzees have the ability to help others based on specific needs (Yamamoto et al., 2012).

Analysis and Reflection

Based on the narrative data and their holistic or integrative implementation in classroom of three domain based learning approach of cognitive, emotional and constructivism which is further blended to peer strategy of all through Venn diagram graphical structuring has helped to choreograph the entire learning process through this framework. Any topic irrespective of subjects can be implemented through this peace motivation peer pedagogy framework.

In the modern time of 21st century global world, the educational process has really transformed to a holistic learning where a student needs to be creative, emotionally balanced, active and engaging besides he/she should be social having communicative and collaborative skills and at highest end he/she should be happy and prosperous. All these skills can be achieved through this peace motivation peer pedagogy framework design that has been theoretically enhanced and practically refined through many classroom practices. Hence the framework is basically the outcome or the reflection of many years of live classroom practices that can address the conference theme “*Sustaining and Thriving Transformative Educational Research and Practices in Challenging Time and Contexts*”

Findings and discussion

The analysis and interpretation of the live lesson plan and the narrative data sources based on various learning studies distributed to three key domains of cognitive, emotional, constructivism and their subsequent peer relationship as a part of social approach which are further integrated to peace motivation center of intersection clearly reveal the essence of sustaining and thriving transformative educational research and practices in challenging times and contexts. The findings do correspond with the envisioned conceptual framework diagram.

As a teacher, head teacher and with a long experience of over 35 years in educational domain consisting of classroom, schools and the largest class as society and nation has provided an ample source of first hand data based on experiences, epiphanies and knowledge bank. Even , three domain of experiences extracted through auto-ethnographical methodology has provided authentic and valid findings that could be illustrated in following points.

Findings can be listed as

- i. Every child or the learner is a holistic entity that consist of three key learner domains consisting three elements like cognitive, emotional and constructivism (action)
- ii. Learning is best motivated through peace motivation which is the intersection of cognitive, emotional and constructive domain of learning.
- iii. Every learner consists of three domain of learning like cognitive, emotional and constructivism and they are influenced by peers for communication and collaborative learning.
- iv. Classroom of learners are basically the peers of learners and their peer formation in various numbers and size will promote the social peer pedagogy
- v. All the lesson plan can be developed with the reference to the peace motivation peer pedagogy framework and can be reflected to three key parts of lesson plan which consist of learning objective, activities in class and assessment procedure.
- vi. The intersection of all these learning elements of cognitive, emotional and constructivism through Venn diagram structure reflect the highest form of learning called as the peace motivation or happiness and prosperity.
- vii. The Peace motivation peer pedagogy framework will deliver the *Sustaining and Thriving Transformative Educational Research and Practices in Challenging Time and Contexts* to address the 21st century global learning.

Conclusion and Implications

The conceptual framework of peace motivation peer pedagogy is a lived practices of experiences in classroom practices which are reflected through practical classroom practices and curriculum based on various learning theory studies and socio-psychological experiments. These curricula are tested and refined through vigorous classroom practices over a long time of 20 years through my experiences as teacher, head teacher and teacher trainer. The findings and discussions reflect the experiences and epiphanies which clearly justifies the peace motivation peer pedagogy framework as a curriculum framework that could be used by every teacher and every subject to deliver and make the lesson creative, emotional, engaging, collaborative, communicative in peaceful environment to achieve the integrative aim of peace motivation as the highest learning domain. This too address the main theme of conference the *Sustaining and Thriving Transformative Educational Research and Practices in Challenging Time and Contexts* to address the 21st century global learning. Hence has the implication of building peace through peace motivation peer pedagogy framework across the world and around the world.

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Critical Spirituality for Nurturing Holistic Educational Leadership

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Abstract

This paper showcases that the intersection of spirituality and critical perspectives as guiding forces nurtures holistic educational leadership. I do not claim that school leaders cannot perform well without entering into the practice of spirituality. It appears that a spiritual quest might be helpful for the personal and professional growth of school/educational leaders. The insights of criticality and spirituality might nurture effective and meaningful leadership, maintaining the harmony of heart and mind, and finding paths to mutual trust, collegiality, and collaborative space by finger pointing the status quo and prevailing unjust practices in an organization. The Western-induced critical theories deal with external realities, whereas the perspectives from the Eastern Wisdom Traditions deal with an inward process (e.g., self-reflection, self-probing, self-inquiry, self-transformation). To this end, this paper makes a fusion of Eastern Wisdom Traditions and Western Induced Perspectives via the lens of critical spirituality (*spirituality* includes grace, humility, care, empathy, and compassion, whereas *criticality* embraces critical self-reflection, challenging the status quo and disparities embracing critical perspectives) as a post-modern approach, which values diversity. Critical consciousness makes a leader aware of status quo and challenges disparities (injustice, exclusion, inequity and so on) to create a harmonious space in workplace and community with transformative sensibilities.

Keywords: Criticality, spirituality, critical consciousness, educational leadership

My Spiritual Upbringing: An Epistemological Evolution

I was born in a beautiful village in Sindhuli district, Nepal in a middle-class Hindu Brahmin family. The holy stream of Marin Khola, the lifeline of the village, flows by the side. My parents used to go to that river to take a holy bath and bring water in a mug to offer to God. My mother used to go to the nearby temple of *Lord Mahadev* to worship every Saturday. I also used to go there with her. She used to sprinkle water at the *Peepal tree*, and does it even now. Upon my curiosity, she said that offering water and worshipping the *Peepal tree* every Saturday could prevent any untoward event. I wondered about my mother's remarks and ritualistic acts. How can sprinkling water on the roots of *the Peepal tree* and the the statue of God prevent any inauspicious happening? It was my innocent childhood curiosity. Now I relate her practice to the notion of eco-spirituality which sees the image and presence of God in all of creation. Eco-spiritual awareness is pertinent to save the earth's resources (Cummings, 1991).

I developed a feeling of compassion toward animals. I asked my parents not to sacrifice animals for God and Goddesses. I was shocked to see my relatives slaughtering animals and offering blood to Goddess *Durga* during the Dashain festival. Upon curiosity, I asked my father, "Do you think that God and Goddess enjoy the blood of these innocent animals?" My father tried to convince me that those were the practices carried out for long. Sometimes I saw my neighbours sacrificing pigeons and he-goats as *bhokal* (commitment to offering animals and birds for grace) to God and Goddess. I disliked those practices. As a child, I could not do anything. I was disheartened having observed those ill-practices prevalent in society. I started being a vegetarian when I developed a feeling of compassion toward animals which provided me with inner peace and tranquility. My understanding is that spirituality is essential to understand the essence of being human. Engagement in spiritual practices has been a turning point for nurturing my self-probing sensibilities.

Sometimes I get frustrated, having felt that I am entangled in chaos and uncertainty. In spite of efforts, things do not go well as planned. It becomes quite challenging for me to meet the expectations of the stakeholders. Some of the team members remain engaged in the trivial matter and even seem eager to pinpoint my shortcomings with the intention of discouraging and disempowering me. I get caught in a dilemma as how to cope with disempowering forces. Conflict management appears to be another challenge for me. To convince me, I close my eyes, take a deep breath and ponder the consequence of every happening. At this juncture, I come across a glimmer of hope and optimism to pursue school leadership journey with greater patience and determination to overcome possible tensions and contradictions. At times, I think my anticipative nature has been a source of stress and disappointment when my team members do not perform as anticipated. On the other hand, my ability of tolerance and inclusive vision has been possible through my engagement in spiritual practices. The root of spirituality embedded in me from my childhood is shaping my journey of being, becoming and valuing.

Methodology

This paper is basically an argumentative paper to explore nuances of critical spirituality, and draw its relevance to nurture a holistic educational leadership. I have incorporated my autoethnographic vignettes in the paper to build an argument pertaining to critical spirituality.

Spiritual Epistemology in Leadership

Spirituality is a journey of self-navigation. It nurtures the moral craft of leadership. Piercy (2013) defines spirituality” as the quest for life meaning and self-awareness for a higher purpose demonstrated through efforts to the common good for all” (p.30). Swami Mukundananda (2019) mentions that “all the Vedic scriptures teach us that spirituality is a journey within ourselves. It entails the unfoldment of the inherent divinity inside us, which requires purification of the mind” (p.4). Similarly, Muller (2005) views that spirituality as defining aspect of holistic education incorporates a sense of connection to the cosmos. So, I take spirituality as a prominent agenda for my self- transformation. Incorporating spirituality is an essential component of being a transformative school leader (Piercy, 2013). In a similar vein, Houston (2008) mentions that spirituality allows leadership to blossom fully and helps to step towards an uncertain future with a stronger sense of connectedness to one another.

Highlighting spirituality as a crucial and underlying element of leadership, Sokolow and Houston (2008) mention that spirituality connects us to our deepest selves and helps us to be an effective leader as it acts as a signpost to pursuing the spiritual dimension of leadership. Dhiman (2019) mentions that " modern leadership concepts such as vision, motivation, and empowerment, self-awareness, self-mastery, excellence in work, importance of ethical means in achieving righteous ends, meaning and fulfillment at work are all lucidly discussed in the *Bhagavad Gita*" (p.3). *The Bhagavad Gita* offers timeless leadership lessons to the leaders of organizations. It depicts how leaders can have lasting influence by performing one's innate duty (*swadharma*), developing fine emotions such as self-knowledge, care, love, and compassion with a deeper level of awareness. Dhiman (2019) further mentions that *the Bhagavad Gita* focuses on the ethical and spiritual dimensions of leadership, knowing, doing, and being. I believe that spiritual engagement is a must for a school leader to organize, collaborate and mobilize the team to achieve the goals of an organization. Having a focused mind and clarity of the purpose of my responsibility, I need to engage in daily activities meaningfully. Sometimes I find myself desperate amid chaos at school and hopefully, build up courage through spiritual awareness to pursue my school leadership journey.

Metzger (2008) expresses that it is essential to cultivate inner dimensions to cope with stresses and crises at the workplace paying attention to physical, emotional, mental, and spiritual well-being. Aligning with the ideas mentioned, I am keen to grow as a person and a leader in all dimensions of my being and becoming, focusing on my inner self having a connection to my everyday affairs. The life of a headteacher is a perpetual dilemma. It requires

an intellectual and moral commitment to overcome frustrations and discern the silver lining around dark clouds.

Can Spirituality be Critical?

Arriving at this stage, I do not claim that school leaders (headteachers, educational officers, and other school leaders) cannot perform well without entering into the practice of spirituality. I feel that a spiritual quest might be quite helpful for the personal and professional growth of school/educational leaders. Palmer (1999) argues that being spiritual does not mean forsaking the material world but engaging profoundly through life-enhancing action. His argument embraces the idea of reconciling spirituality and materiality, i.e. critical spirituality. Considering spiritual capital as wealth, a vision and a model we live by, Zohar and Marshall (2004) mention that "it reflects our shared values, shared visions, and fundamental purposes in life.. It helps us ponder deeper dimensions, values and meaning of our life. It instils in us the feelings of care, compassion, truth, goodness, and beauty, embracing integral perspective, thereby contributing to holistic education embracing the intent of critical spirituality.

Bussey (2006) points out that critical spirituality "integrates the concerns of critical theory for social justice, gender equity, and process of legitimation" (p. 42). Stressing the need for valuing diversity with a critical perspective, Gardner (2011) asserts critical spirituality as "seeing people and communities holistically; seeking to understand where they are coming from and what matters to them at a fundamental level" (p.77). Similarly, Boyd (2012) argues that critical spirituality includes insights into critical theories and critical pedagogy. More so, the reconciliation of spirituality and criticality supports nurturing spiritual values and challenges the deep-seated beliefs, paradoxes, and contradictions, thereby "theorizing critical spirituality as an ontological and epistemic praxis to connect the inner world to the outer social reality and materiality" (Panta & Luitel, 2022, p.1). Thus, criticality and spirituality as guiding forces provide a meaningful space for school/educational leaders to bring about school reforms (Dantley, 2005; Panta & Luitel, 2022).

Conclusion

The Western-induced critical theories such as transformative learning theory, Knowledge Constitutive Interests, and Living Theory, among others, deal with external realities, whereas the perspectives from the Eastern Wisdom Traditions deal with an inward process (e.g., self-reflection, self-inquiry, self-transformation). To this end, this paper makes a fusion of EWTs and WIPs via the lens of critical spirituality (*spirituality* includes grace, humility, care, empathy, and compassion, whereas *criticality* embraces critical self-reflection, challenging the status quo, embracing materiality).

Spirituality can be critical as it embraces critical consciousness (e.g. being aware of status quo, challenging disparities) (Panta, & Luitel, 2022). It seems that critical spirituality intends to create a harmonious space by embracing spirituality and criticality. It appears crucial to be aware of ecological crises and to maintain harmony. For this, we need critical citizenry, and to address these issues, special kind of educational leadership might be required. . However, the insights of criticality and spirituality might nurture effective and meaningful leadership, maintaining the harmony of heart and mind, and finding paths to mutual trust, collegiality, and collaborative space being aware of injustice, exclusion and inequity. Probably critical spirituality fits well in terms of addressing these socio-ecological crises embracing contradictions, risks, and uncertainties to create a better world.

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Teachers' Evolving Perspective on Mathematics Teaching After COVID -19

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Abstract

Due to isolation and lockdown caused by the COVID pandemic, schools closed physically and were forced to choose online teaching as an alternative. It created a huge learning and skill gap in students so teachers are having a hard time filling these gaps. This article tries to address the gap shown in students learning, efforts put in from teachers' sides, evolving perspective of teachers while coping with this difficult situation.

Keywords: Learning gap, evolving perspective

Background

Due to the pandemic caused by COVID-19, governments enforced strike-distancing measures, including large-scale lockdowns, travel limitations, and school closures all over the world. The online mode of learning became a panacea for the unprecedented global pandemic, despite the challenges posed to both educators and the learner. In spite of the tireless effort of Teachers and schools toward providing quality education, still, it had a negative impact on students' knowledge and skills development in Nepal (Dawadi. et. al., 2020) and created a huge learning loss (Andrew et. al., 2020) in students' learning. There are many reasons to cause learning loss. 1st reason is due to COVID we are forced to shift online tutoring without much preparation by stakeholders. 2nd reason many students did not have their own computer or tablet and a good internet connection (Gavosto & Romano, 2020). The third reason is the lack of direct socialization among the peer groups has a sizeable impact on students' learning (Epple & Romanoo 2011). The fourth reason, distance learning places additional demands on parents, whose response depends on their level of education, time availability, and financial resources; richer and better-educated parents are in a better position to meet those demands. The fifth reason is students and their families suffering from COVID, losing a family member, or losing the job of their parents. Now after the pandemic, when students are back with the learning and skill gap it created a difficult situation for teachers. As being Mathematics teacher, I am having a hard time teaching students compared to previous years. I am forced to change my entire teaching method and class management skills but then also very negligible difference has been seen. I shared the problems with my colleagues and find that they also have similar stories. While tackling with this difficult situation slowly, intentionally or unintentionally teachers' perspective toward teaching learning and dealing with students has changed a lot so in this article, I want to explore those changed or changing perspective of teachers. What makes mathematics teachers change their perspective? How they changed their perspective while overcoming challenges created by this pandemic in the classroom?

Methodology

Qualitative research is an inquiry or a process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem (Cresswell, 2004) so I used qualitative research method to write this article. Perspective differs from person to person so this article respect multiple realities. I used purposive sampling (Black, 1999) for my research to select my participants. I took four mathematics teachers (2 males and 2 females) currently teaching in Kathmandu Valley as my participant including me. Interviews are the most powerful tools for understanding others (Creswell & Creswell, 2005). I generated knowledge on the basis of my participants' understanding and responses to the interview taken in a natural

setting. I recorded the interview taken, transcribed it, and by using an inductive coding process (Miles et. al., 2014) I come up with this article.

Added Challenges for Teachers after COVID

We worked hard for online classes during the lockdown. We learned different software and developed different teaching and assessing techniques during those difficult times in order to deliver content in a better way so we were confident that there will be less learning loss.

Unfortunately, when students returned to school the situations were worse. Mr. X said that he still remembered the initial days just after students returned they got easily distracted so he had taught time engaging students for 45 minutes. Mr. Y shared that a huge number of students lack the basic concept of mathematics like simplification, addition, subtraction, multiplication, division of numbers, and simplification of simple algebraic expressions. Teaching geometry was the most challenging. Mr. Z taught in class 8, she was teaching class 6 students because of students' comprehension level. We all experienced students' writing habit got worse, students are having problems writing in a systematic way by using proper symbols. Regarding writing habits, Ms. Z shared that some of the students complain to her that their hands' pain when they solve more than 2 questions so they requested her for assigning less classwork and homework for them. Students are so reluctant to do their assignments and meeting deadline. We all noticed students being more self-centered, selfish, nagging, aggressive, and emotionally weak.

Teachers' Efforts

In order to deal with this difficult situation caused by COVID-19 we are forced to put extra effort to bridge the learning gap. We are taking extra time to provide mathematical concepts using different teaching styles. Before teaching we invest time to examine students' prior knowledge for each chapter such that we can teach based students' understanding and knowledge level. Mr. X and Y are promoting reading and writing habits by appreciating and providing merits for each and every effort they put toward learning. We put extra effort to check assignments promptly and provide constructive feedback as soon as possible. They used different mathematical games to drag students' interest in the content and use different teaching materials for an effective understanding of content. They become more lenient with the grading system in order to encourage students. Phipps and Merisotis (1999) stated that technology is simply unable to replace the human factor in the educational process. This is still somewhat true since the main distance learning challenge reported in the literature is social isolation and the lack of face-to-face contact with peers and teachers (Amin & Li, 2010). Similarly, this research also found two years long "making" and "social distancing" leave a very bad impact on the social skills of students. By realizing the fact that it is essential to listen to students' concerns and demonstrate understanding as well as empathy. Teachers have increased the amount of concealing sessions regarding the importance of the study, personal issues, time management, moral values, etc. for shaping and nurturing students for learning. Teachers are putting their effort to provide lots of opportunities to socialize and interact with the peers they have missed for so long, in line with school safety protocols. Students are encouraged by providing merits when they exhibit positive social skills, such as offering help or doing work in a group.

Evolving Perspective

Mr. X told me that for him teaching was just delivering the content given in the book before the pandemic. After COVID he cannot start content without preparing students mentally so he has started to build rapport with students. He started to draw students' attention by involving students in different math lab activities. As a result, he is able to drag student attention into the classroom for learning. He proudly shared that now students are more close to me and consider me their best teacher. Though the initial phase was worse for me and my students now it is getting better let's hope, we will be able to bridge the learning gap soon and perform even better.

In order to provide the basic mathematical concept lacking, Mr. Y used flipped classroom approach and found it useful. Currently, he was working on flipped classroom model. He has developed a site where we kept our recorded videos on different topics and students are asked to go through them before coming to classes. Mr. Y further started to conduct action research on his flipped classroom model in our context.

Ms. Z shared that she never used ice-breakers before entering to content and used the group work method to teach students but after COVID in order to engage students and to teach students social skills forcefully, she has to find an alternative for her methods. She has started to encourage students to pair learning by making pairs of academically sound and weak students. In order to encourage students for summing assignment on time and maintain discipline she has learnt different praising techniques and used them. During this process, she has developed a passion for pedagogy so in order to enhance her horizon further she has joined M.ed in mathematics.

Discussion and Conclusion

The COVID pandemic brings crisis in every aspect of life so does the teaching-learning field. All participants were teaching mathematics for more than 10 years and have made their own perspectives on teaching, student dealing, and classroom management. They had already made their own comfort zone and act accordingly over the years. But gaps created in the teaching-learning sector due to the pandemic forced them to change their teaching methodology, student dealing, classroom management skill, etc. which gradually changed their perspective for betterment as suggested by crisis theory (Parad & Caplan, 1960). While going through this article, practices adopted by participant teachers may not be fascinating for you but for the teachers. But for me the courage and dare they have shown for minimizing the learning gap and effective learning. Some teachers solely guided by behaviorist theory (Skinner, 1988) are leaving their ground and moving a toward constructivist approach (Vygotsky, 1962). While interviewing them I can feel some satisfaction toward their change and the hunger for further change. They believe that soon they will bridge the learning gap and will create a better learning environment. So, we are confident that sooner or later our evolving pedagogies will lead our students toward transformative learning (Mezirow, 1997).

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Head, Heart and Hands in Teaching and Learning Mathematics: Students Genuinely need a Teacher's Heart

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Abstract

In Nepali School Education, the system of teaching and learning mathematics has been confined to increasing student technically abided cognition (Head) through the paper-pencil (practice) method (Hands), thereby neglecting/subordinating beliefs, values, attitudes, and emotions (Heart) towards mathematics. In this context, we collaboratively explored, examined, and storied our experiences of teaching and learning mathematics and educating mathematics teachers using the integration of “Head, Heart and Hands” within Transformative STEAM Education. Using collaborative autoethnography as research methodology and Transformative Learning Theory and Living Educational Theory as theoretical referents, we collaboratively narrated our experiential learning on applying the “Head, Heart and Hands” framework in Mathematics Education in Nepal. Our research study has generated mainly two outcomes: Firstly, Mathematics Education in Nepal (probably across the world) has been giving over-emphasis on the cognitive (Head) and psychomotor (Hands) domains of learning, while the affective (Heart) domain of learning has been overshadowed, and secondly, the integration of cognitive (Head), affective (Heart) and psychomotor (Hands) domains of learning gives rise to an authentic, inclusive, and empowering Mathematics Education.

Keywords: “Head, Heart and Hands” approaches to learning, STEAM Education, Mathematics Education

Context of the Research Study

In the context of Nepali Education, not only Mathematics Education but the whole education system seems to have been giving over-emphasis on the cognitive domain of learning and psychomotor domain of learning while the affective domain of learning has been neglected, if not, subordinated (Luitel, 2009, 2013, 2019, 2022; Shrestha, 2011, 2018, 2019, 2022; Pant, 2015, 2019, 2022; Dahal, 2017). Based on our experiences as learners, teachers, teacher-educators and researchers in the university, Mathematics Education in Nepal has gradually faced problems in appealing to students for enrollment. This can also be justified through the reports of National Achievement of Student Achievement 2017 in Mathematics, Science and Nepali for Grade 8 (Education Review Office, 2018) and National Achievement of Student Achievement 2018 in Mathematics and Nepali for Grade 5 (Education Review Office, 2019). The reports suggest that instead of gradual improvement in student achievement in Mathematics in Grade 5 and 8, there is a gradual decrease in student achievement in Mathematics depending upon the rural and urban schools. "How could this happen?" is the main issue of this research study.

What could be the major reasons behind the gradual decrease in student achievement in Mathematics in Nepal? As University Faculties, we have taught graduate students, conducted teacher education and research studies for over two decades. We learned from our deep and prolonged engagement with the receiving ends (students), teachers, parents, community people and the policy stakeholders that Mathematics Education in Nepal has been giving major emphasis on cognition to increase technical knowledge (Habermas, 1971, 1972, 1974) of mathematics through procedural knowledge and understanding of mathematics (Rittle-Johnson, & Schneider, 2015), thereby neglecting/subordinating conceptual knowledge and understanding

(Rittle-Johnson, & Schneider, 2015) and relational understanding of mathematics (Skemp, 1976).

In this context, we explored and examined the major issues behind students' low achievement in mathematics through the lenses of Transformative STEAM Education, which led us to probe into the “Head, Heart and Hands” approaches to learning mathematics. Since we started the graduate programmes viz. MPhil and PhD in STEAM Education in 2019, and MEd in STEAM Education (1 Year) in 2020, we realized that “Heart” is missing in Mathematics Education in Nepal. Since then, we started implementing “Head, Heart and Hands” approaches to learning mathematics in our university programmes (PGD and M Ed in Mathematics Education) and spread it through our university graduate programmes and nationwide workshops for schoolteachers. We reached out to the students, teachers, parents, community people and other stakeholders throughout the nation as possible as we could. Therefore, this paper explores, examines, and stories our experiences on the use of the “Head, Heart and Hands” framework (that we developed) in Mathematics Education within Transformative STEAM Education.

“Head, Heart and Hands” within Transformative STEAM Education

STEAM Education plays a vital role in Mathematics Education via the multidisciplinary, interdisciplinary, and transdisciplinary integrations of Science (S), Technology (T), Engineering (E), the Arts (A), and Mathematics (M), where Science is used for inquiry, Technology for skills, Engineering for design thinking, the Arts for creativity and imagination, and Mathematics for computational, logical thinking and problem-solving skills (Shrestha et al., 2022). STEAM Education is a convincing philosophy of learning that guides the design of STEAM teaching and learning approaches aimed at developing students' transdisciplinary abilities for engaging as future citizens in sustainable development debates, decision-making and practices (Taylor, & Taylor, 2019). Moreover, transformative STEAM Education is an integrated approach to curriculum, pedagogy and assessment that uses “Head, Heart and Hands” for holistic development of students and sustainability education. It involves transformative learning by engaging students in reflecting critically on the presuppositions underpinning their (largely invisible) values and beliefs (Taylor, & Taylor, 2019; Mezirow, 1972).

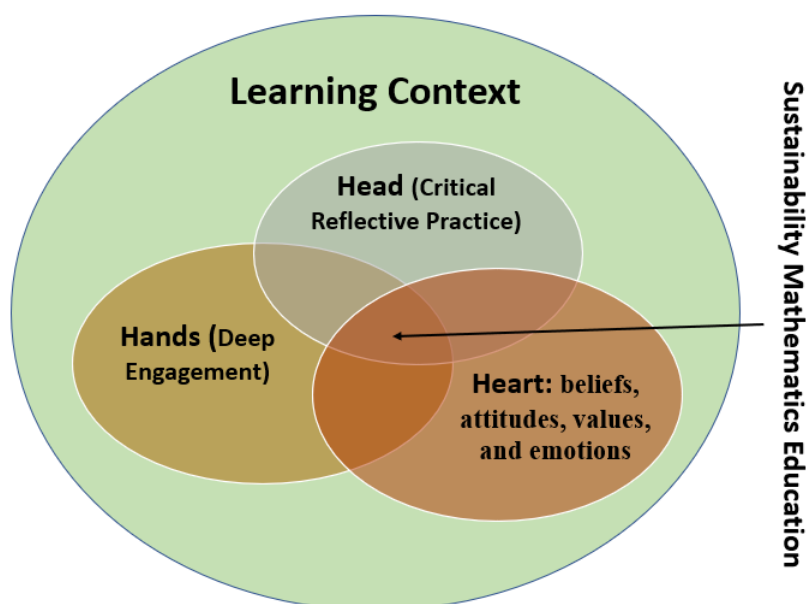
Here, our common argument on “Head, Heart and Hands” approaches to learning is oriented towards Dewey’s philosophy of Progressive Education (Dewey, 1910/2005; 1934; 1938/1963; 1944). Progressive Education mainly resonates with four principles - experiential learning (learning by doing), discussion (democratic practice), interactive classroom (social interaction with the environment) and interdisciplinary learning (inquiry learning). In this context, we developed the “Head, Heart and Hands” framework for Mathematics Education as follows:

- **Head:** Head is the primary hard disk of cognition. Cognition is a mental process by which external or internal input is transformed, reduced, elaborated, stored, recovered, and used (Brandimonte, Bruno and Collina, 2006). But aligning with Singleton (2015), our common argument here is that “Head” is related to critical reflective practices for transformative learning that help students create meaning by connecting their present experiences with their previous experiences (Dewey, 1910/2005, 1934, 1938/1963, 1944; Mezirow, 1990, 1991, 1997, 2007). It means that authentic context is needed for a meaningful meaning-making process.
- **Heart:** Heart is related to the affective domain of learning that helps students develop their beliefs, attitudes, values, and emotions towards mathematics, teachers, and their present and future lives. It allows students to actively use their conceptual and relational knowledge and understanding of mathematics developed in their “Head” through critical (self)-reflective practices (Skemp, 1976; Rittle-Johnson, & Schneider, 2015;

Singleton, 2015). In this context, we argue that students genuinely need a teacher's heart that encourages students develop their beliefs towards teachers and mathematics, thereby helping them build up their attitudes, values and emotions towards teachers, mathematics and their present and future lives.

- **Hands:** "Hands" are, in general, related with the psychomotor domain of learning which includes student physical movement, coordination, and use of the motor-skill areas, and students develop such skills through regular and connected practices. Our argument here is that "Hands" should be properly used for meaningful meaning making process, which is possible through student deep engagement in learning. Only the physical presence of students in the learning environment does not help them holistically. They should build relationship with the context through critical reflection on their beliefs, attitudes, values, and emotions towards their learning. Therefore, "Hands" should be context-dependent and engaging to have sustainability mathematics education.

Reviewing various pieces of literature (Dewey, 1910/2005, 1934, 1938/1963, 1944; Mezirow, 1990, 1991, 1997, 2007; Habermas, 1971, 1972, 1974; Singleton, 2015; etc.) and based on our experiences of using "Head, Heart and Hands" approaches to learning, we developed a "Head, Heart and Hands" framework for Sustainability Mathematics Education within Transformative STEAM Education. In this framework, the multidisciplinary, interdisciplinary, and transdisciplinary integration of "Head, Heart and Hands" in the learning context helps develop Sustainability Mathematics Education. And this framework works within the Transformative STEAM Education through which students engage in inquiry learning (Science), properly use both local and modern technological skills (Technology), engage in design thinking (Engineering), develop creativity and imagination skills (Arts), and build computational, logical and problem-solving skills (Mathematics). Moreover, the "Head, Heart and Hands" framework of Mathematics Education helps students, teachers, teacher-educators, and researchers shift towards transformative mathematics curriculum, pedagogy, and assessment from the technically abided cognition (Head), physical presence in learning (Heart), and procedural knowledge and understanding through paper-pencil method (Hands).



"Head, Heart and Hands" Framework for Sustainability Mathematics Education
(Shrestha, Luitel, Pant, & Dahal, 2022)

Our Theoretical Referents

Based on our long experience in the field of education as researchers, we realized that there is no “royal road” to pedagogy, and research study, and grand theories of teaching and researching may not be appropriate in developing ourselves (and teachers) as change agents in our contexts (Pant, Luitel, & Shrestha, 2020). Therefore, we used two grand theories – Transformative Learning Theory (Mezirow, 1991) and Living Educational Theory (Whitehead, 2008) as theoretical referents.

We used Transformative Learning Theory (Mezirow, 1991) from the epistemological perspective that research is a means for transformative learning that guided us to critically explore, examine and use our roles as researchers in our local contexts without having the hegemonized influence of so-called Western Research Traditions. Therefore, throughout the research study, we were always conscious enough to engage ourselves in making necessary shifts towards our Local Research Traditions from the dominant Western Research Traditions through critical reflective practices.

Further, Living Educational Theory guided us to explore, examine, and use local educational issues with the maxim – “How do I improve what I am doing” so that we could be able to bring our lived and living experiences and contradictions in the form of narratives which were analyzed and interpreted to draw meanings from them using the explanation of Whitehead (2008) that a living theory is an explanation produced by individuals for their educational influence in their own learning, in the learning of others and in the learning of the social formation in which they live and work.

Our Research Methodology

Autoethnography (evocative rather than analytic) is an approach to research and writing that seeks to describe and systematically analyze personal experience in order to understand cultural experience (Ellis, Adams, & Bochner, 2011). We used collaborative autoethnography as a research methodology which is a qualitative research method that is simultaneously collaborative, autobiographical, and ethnographic (Chang, Ngunjiri, & Hernandez, 2013; Chang, 2016).

As collaborative autoethnographers, we, therefore, critically explored, examined, and storied our experiences on learning, teaching, educating pre- and in-service teachers, and researching in the field of Mathematics Education in Nepal and across the world through a series of collaborative interactions and drew meanings from them. Moreover, we used our personal experiences as the primary data for social investigation, not only to tell personal stories but to expand the understanding of social realities through the lens of the researcher's experiences.

Participants' Narratives, Discussion and Findings

Teachers' and Students' Experiences and Perceptions of Mathematics: Context One

Teachers' experience and perceptions:

“Mathematics is a scoring subject.”

“Repeated practices through paper-pencil method help students learn mathematics.”

“If students memorize all formulae and procedures, they can achieve high exam scores.”

“Only intelligent students can learn mathematics very well. Others are to score a pass marks in exams.”

“Mathematics is used everywhere in our life. That's why; students should score high marks in exams.”

Students' experiences and perceptions:

“Mathematics is the hardest of all subjects.”

“Mathematics is a dry subject.”

“No matter how much you practice, it will not penetrate your mind.”

“I am always afraid of mathematics teachers.”

“I hate mathematics subject and mathematics teachers as well.”

“I will throw my mathematics textbooks in dustbins after the SEE (Secondary Education Examination).”

Parents’ Expectations from their children:

“You should score high in mathematics to increase your overall percentage in the exam.”

“Score more than 90 % to become an engineer, doctor, pilot,”

“Mathematics and Science are gateways to a successful life for my children.”

These were the common narratives of teachers, students, and parents on mathematics teaching and learning. We collaboratively worked on our personal experiences and explored the commonalities in our experiences. We then analyzed and interpreted them through the “Head, Heart and Hands” framework and found that teachers, students, and parents think that mathematics is useful in their everyday lives. For teachers, only intelligent students are capable of learning mathematics. Students should learn mathematics by memorization and practice methods to master procedural knowledge and understanding (Rittle-Johnson, & Schneider, 2015) and score high marks in exams. For students, mathematics is a subject of abstract ideas and concepts beyond their conceptualization capacity; hence, it is the hardest of all subjects. Therefore, the so-called intelligent students learn mathematics for scoring high marks in exams so that they can fulfill their parents’ expectations of becoming engineers, doctors, pilots, etc.

Our collaborative analysis and interpretation generated that teachers, students and parents give major emphasis on technical understanding of mathematics (Head), negative beliefs, attitude, values and emotions towards mathematics and teachers (Heart) and physical presence of learners in the classroom (Hands). We generated the meaning that there are many schools in Nepal where teachers should be conscious of using the “Head, Heart and Hands” framework for meaningful mathematics learning.

Since the time we started to implement the “Head, Heart and Hands” framework in our university and schools across the country (See the section “Head, Heart and Hands” within Transformative STEAM Education), we collected our personal experiences and collaboratively sorted out the common narratives. Finally, we analyzed and interpreted them to make meaning. What we explored after implementing the “Head, Heart and Hands” framework are presented as follows:

Teachers’ and Students’ Experiences and Perceptions on Mathematics: Context Two

Teachers’ experience and perceptions:

“Oh, my goodness, we can teach mathematics through storytelling, singing, dancing, poetry, drama (play), etc.”

“I now realized that we should engage students in inquiry learning through project-based learning.”

“We should engage students in design thinking so that they make plan, implement it and achieve their desired goals.”

“We should promote contextual learning, integrated learning, experiential learning, inquiry learning, collaboration, critical thinking, creative thinking, and problem-solving skills, etc. in mathematics teaching and learning.”

“The “Head, Heart and Hands” framework for Mathematics Education helps students in their holistic learning.”

“Teachers should understand students to enhance their positive beliefs, attitudes, values and emotions towards mathematics and teachers so that they will be self-motivated in learning mathematics.”

Students' experience and perceptions:

“Wow! I realized today that mathematics is not the hardest, dry subject as I would think before. It's interesting and easy thus far.”

“Ah! It's quite interesting to learn mathematics by engaging in project-based learning. We can visit different places, collect information, discuss with members in our groups, make a reflective report and present it in the classroom. That's an amazing experiential learning I have ever experienced in mathematics class.”

“Oh, my goodness! Nowadays, our mathematics teacher is so loving and caring towards all students. Very difficult to believe it!”

“I realized today that a mathematics teacher also has heart. Unbelievable!”

“I enjoyed learning mathematics through storytelling, singing, dancing, drama, and poetry. It inspired me to write stories, songs, poems, and drama scripts of mathematics lessons with the help of my parents and teachers.”

Students' experience and perceptions:

“Ah! Nowadays, the mathematics teachers of my children help them engage in mathematics learning. Amazingly, my children are always busy developing projects, writing poems, stories, dramas, and songs. It's a miracle. Thanks to the mathematics teachers and the school.”

“My daughter asked me a critical question regarding social justice in mathematics education today. She told me that we could easily find out whether her parents would involve in corruption or not by asking them about the total family income and expenditures. Moreover, she told me that she would explore the assets and investments her parents made after her parents started the government service and compare the assets and investments with the family savings. I am happy to see my daughter developing her critical thinking skills.”

“Nowadays, the school has become a place where my children learn all subjects in integrated ways and develop the life skills required for their present and future lives.”

The transformation was observable for us from the above common narrative of teachers, students and parents on mathematics teaching and learning. Moreover, we also implemented the framework in our university. What they had to say are as follows:

“What I heard from different social media and people before joining the programme at Kathmandu University School of Education turns out to be true gradually. I can feel why this university is different from others - Well planned, dedicated professional teachers and professors committed to promoting the “Head, Heart and Hands” framework in education.”

“The “Theory into Practice” approach to learning in the university has enhanced experiential learning approaches. I experienced John Dewey's Progressive Education. It's amazing.”

“I would always think that I am the weakest learner. However, the university taught me that learning is an ongoing, lifelong process in which learners actively construct knowledge based on their previous experiences through social interaction. We often construct a negotiated meaning through social interaction. This is an application of John Dewey's Democracy in Education.”

“Simply a chalk-and-talk method is not going to serve as a means of meaningful learning; I mean authentic, inclusive, and empowering learning. Rather, we as teachers should use the “Head, Heart and Hands” framework for sustainability education.”

“Ah! Teaching Mathematics through arts-based pedagogy is interesting! In the beginning, it was quite difficult for me to translate the essence of mathematical contents into stories, poems, dramas, songs, etc. Now, I am gradually learning and more

comfortable using it in the classroom. My students are also enthusiastic about learning mathematics through arts-based pedagogy.”

From the above narratives of school teachers, students, and parents, and university students, we realized that we had been continuously experiencing the contextualization of the “Head, Heart and Hands” framework in school and university education in Nepal. Since this is an ongoing research process that goes on as long as we serve as learners, teachers, teacher educators and researchers, we are still reflecting critically on our experiences of using the “Head, Heart and Hands” framework.

As collaborative autoethnographers, we collected our lived experiences and contradictions (Whitehead 2008) on the use of the framework, discussed them collaboratively to generate common themes and made meanings from them. As transformative researchers, Transformative Learning Theory guided us to transform our old worldviews of mathematics teaching and learning to “co-constructed worldviews (knowledge)” by integrating new worldviews. In the process of co-constructing knowledge, we were constantly in disoriented dilemmas, which we resolved through collaborative interaction. The Living Educational Theory guided us to explore our more profound understanding of mathematics teaching and learning through the lenses of the “Head, Heart and Hands” framework within Transformative STEAM Education. Our attempts to explore our narratives were painful during sorting out narratives while graceful when we generated common themes and analyzed and interpreted them to make meaning from them.

Concluding Remarks

Our collaborative efforts of implementing the “Head, Heart and Hands” framework in Mathematics Education in Nepal raised positive beliefs, attitudes, values, and emotions towards Mathematics Education in Nepal. Moreover, our research study generated mainly two outcomes: Firstly, Mathematics Education in Nepal (probably across the world) has been giving over-emphasis on the cognitive (Head) and psychomotor (Hands) domains of learning, while the affective (Heart) domain of learning has been overshadowed, and secondly, the integration of cognitive (Head), affective (Heart) and psychomotor (Hands) domains of learning gives rise to an authentic, inclusive, and empowering Mathematics Education. Our analysis and interpretation also suggested that students not only need the use of “Head” and “Hands” but also genuinely need a teacher’s “Heart” to motivate students in meaningful mathematics learning.

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Legacy of Conventional Pedagogy in Semester System: Structuration of Non-Transformative Education in Teacher Education Programs in Faculty of Education, Tribhuvan University, Nepal

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Abstract

Implementation of the semester system in higher education in Nepal was a departure to change from conventional Western modern education exercised in the annual system to experiential, shared, and transformative approaches to pedagogy and assessment. However, the intent of the shift is to make alterations in empowering students so that they can engage in transforming society is bleak. In this context, the paper, based on insider ethnographic research, explores the pedagogical and assessment culture developed in the semester system of teacher education programs, in the Central Department of Education, Faculty of Education, Tribhuvan University, Nepal. I argue that there is a legacy of conventional pedagogy and assessment as the reproduction of the annual system. Drawing on the views of transformative learning theory and structuration theory of Anthony Giddens, the agency of teachers and students has shaped the structure, largely the reproduced rules and procedures of pedagogy and assessment, of the semester system giving rise to the structuration of the non-transformative approaches of education. The agency shaped by the political affiliation of teachers and students and the constraints of resources is the key barrier to promoting transformative education in teacher education programs.

Keywords: semester system, higher education, pedagogy, assessment, transformative

Introduction

I am intrigued to write this paper by the quote ‘Putting the Same Bottle of Old Wine in Two Half-Size Bottles’ (Tripathi, Sharma, & Subedi, 2020, p. 136). This is articulated in the sense of possibility of continuation of conventional practices of education of the annual system, exercised for about a half-decade, in the half-yearly semester system introduced in 2014 at Tribhuvan University (TU), Nepal. However, existing pieces of literature pay less attention to understanding the nuance practices of pedagogy in the semester system, particularly in teacher education programs. The semester system is successful in technical programs such as medical science, engineering, and agriculture (Tripathi, Sharma, & Subedi, 2020). However, the efforts of the Higher Education Reform Project (HERP) funded by the World Bank (WB) focusing on improving quality, relevance, access, and efficiency are less translated into the reality in social sciences and education (Khanal, 2020). Higher education largely guided by neoliberal policies has almost failed to offer education identifying the need of communities and the global market, thereby leaving a large number of graduates unemployed (Bista & Gaulee, 2020). University students anticipate that it is difficult for them to leverage their educational achievements in terms of economic benefits and social upward mobility (Kolbel, 2013). The issues of quality and relevance of education depend on quality pedagogies and assessments of students’ learning which the annual system could not promote.

The university’s annual system programs, guided by Western modern worldviews (Luitel & Taylor, 2019), embraced the approaches of centrally designed curriculums and teacher-centric pedagogies (Gaulee & Bista, 2020; Khanal, 2020; Rai & Acharya, 2021). The curricular practices were characterized by fixity and closeness limiting students to engage in

meaningful learning. As John Dewey, the students were rarely engaged in unlimited learning through hands-on experiences in real-world situations (Miettinen, 2000). The system adopted decontextualized practices, thereby promoting meaningless and less usable knowledge and skills in the day-to-day lives of students (Luitel, 2009). The practice of transmitting the textbook content through lectures was disempowering to the students (Broom, 2015). An approach of 'one size fits for all' passivated them compelling to memorize imported (Western) ideas and concepts. The students were less engaged in discussions, group work, critical reflective practices, and project activities. The rigid, time-bound, and structured teacher-made or standardized tests as summative evaluations could not assist in learning but promoted injustice to the students with multiple beliefs, knowledge, and worldviews (Rai, Shyangtan, Luitel, Carm, & Khanal, 2020). The narrowly conceived paper-pencil-based assessment models focused on testing specific bookish knowledge and skills. The testing with the notion of objectivity stressed measuring the mastery of basic skills to achieve higher aggregate scores but failed to assess students' holistic learning.

The semester system was supposed to be a radical departure as a reform approach to overcome these limitations of the annual system and promote meaningful learning for the students so that they could be able to affirm their lives contributing to the development of the nation. It was felt a need to adapt to global educational practices, thereby adopting more autonomous, student-centric, and flexible ways of knowing (Bista, Sharma, & Raby, 2020). It was expected to make students competent enough so that they could engage in the knowledge economy. The intent was to make "shift some weights of teaching to learning, knowing to do, written examinations to diversified assessments" (Trhipathi, Sharma, & Subedi, 2020, p. 138). However, good governance, a lack of resources, teacher professional development, and to name a few are the challenges to bringing significant changes in enhancing quality (ADB, 2015). The semester system requires a shift to the shared, experiential, critical, reflexive, and transformative teaching-learning approaches, thereby supporting students to empower and transform themselves by which they could contribute to social transformation (Kessler, 2011). Whether this visioning is translated in the practice or not? If yes or no, how and why? These issues are less analyzed and discussed in the academic milieu.

In the case of teacher education programs under the Faculty of Education, as an impact of three years (2014-2017) Norwegian Higher Education Development (NOHRD) project (that was extended for two years), the scholars (Rai & Acharya, 2021; Carm, 2020) claim to have improved the competency of teacher educators in application of Information and Communication Technologies (ICTs) and integration of gender and indigenous issues in curricular practices, amid teacher-centric pedagogies, particularly in Math, English, and Foundations of Education on which the project was intervened. The project also intended the sustainability of teacher development by providing a manual to apply constructivists, progressivists, and transformative teaching-learning activities (Rai, Shyangtan, Luitel, Carm, & Khanal, 2020). However, as experienced by me as an insider professional, the practices are less visible in reality, at least in the Central Department of Education. In this context, this paper explores the practices of pedagogy and assessment in the semester system. How and why do the teachers and students engage in such practices? The paper draws from the perspective of transformative learning theories and the Giddensian view of structuration and argues that there is a legacy of conventional pedagogy of the annual system which is less promising to promote transformative learning. Further, the paper highlights that political power has formed a particular structure (rules and procedures) in the university context thereby promoting non-transformative learning.

For this paper, I used an insider ethnographic method as I was a professional acculturated in the context of the Central Department of Education for five years as a permanent appointee. There were three major reasons for applying this approach to research. First, it was easier to develop

trust, rapport, and openness with teachers and students as participants (Dwyer & Buckle, 2009; Chavez, 2008; Greene, 2014). Second, I easily accessed them (Rai, 2020; Breen, 2007). Third, it enabled me to observe persistently and discuss extensively in a natural setting to understand the practices in-depth and comprehensive manner (Suwankhong & Liamputtong, 2015; Greene, 2014). I had day-to-day interactions with many students and teachers. However, I followed two students (1 male and 1 female) of each intake for February 2020 and 2021 from each of the three programs namely: Nepali, English, and Mathematics Education for a year (the first and the second semester of intake in 2021 and the third and fourth semesters of intake in 2020) as there were a larger number of students (approximately 100 students in each program). I interviewed two (1 male and 1 female) teachers associated with each of the programs. The interviews were conducted time and again to ensure the accuracy of interpretations (Breen, 2007). The informal observation (Blommaert & Jie, 2010) of the context/physical environment, the behavior of teachers and students, and the activities of teaching-learning and assessment was another method of collecting information. The incessant writing based on interview recordings and field notes was important to maintain the thick description as the quality standard of credibility and transferability of the research (Hammersley & Atkinson, 2007). The research was sensitive ethically as I explored the malpractices of education. Thus, I got the consent of the head of the department and maintained the confidentiality of the participants by using pseudonyms (O'reilly, 2005).

The Learning Context

Faculty of Education has 26 constituent campuses and 590 affiliated colleges across Nepal. Central Department of Education (CDoE), a University Campus (UC), is located in Kirtipur, Kathmandu. CDoE has 16 departments, 3 of which perform administrative functions, whereas the remaining 13 are full-fledged academic departments that offer 13 different Master of Education (teacher education programs). As with the other 38 CSs, the university has an intent to develop the CDoE as a center of excellence. CDoE has a vision of preparing competent school pedagogues, curriculum makers, planners of education, and researchers. There are 184 (132 teaching and 52 non-teaching) staff and the number of students in the annual system ranged from 5000 to 6000 but it has been steadily decreasing in later years due to the expansion of constituent and affiliated colleges. Even though, the students have hope and express that the CDoE provides better education in comparison to other campuses or colleges. Thus, they, still, have more attraction to English, Maths, and Nepali Education programs. There are either fewer students or no enrollment in other programs in the later intakes. Foundations of Education is the largest department in terms of the number of students it deals with. It is responsible for core/compulsory courses.

A circular building with only the basements adjoins the next circular two-storey building blocks constructed slightly before a half-century. A three-storey new building looks unfinished rooftop very close to the old ones. The big classrooms constructed for the annual system with a capacity of more than a hundred students each are more than enough. The restrooms with rare availability of water are uncleaned for months and hardly usable. The grassy plants and unwanted herbs in open spaces of the campus premises look uncleaned for months. In winter, these spaces are used by the cabals of teachers and students in informal taking. The physical premises of the department, in the morning and evening, remain silent, peaceful, calm, and with only the gentle breeze and sounds of the birds from the gardened trees and bushes. The appearance of non-teaching staff by 10:00 AM is slowly followed by the students and an unpredictable number of teachers. The teachers directly enter the hall where the attendance register is kept. The register keeps waiting for teachers the whole day. Most teachers who have particular political affiliations collectively denied the e-attendance system. Some look in a rush and quickly disappear after attendance. Normally, the teachers who have their classes and administrative engagements attend at their time. The attendees who have leisure form small

cabals of informal talking either in and outside the poorly managed canteen or in the open space in front of the buildings. The university rarely engages them in their professional development through academic activities such as workshops, conferences, peer discussions, sharing ideas, and seminars (Sharma, 2020). Most of them barely do other work except routine lecturing the class about their responsibility.

The big classrooms are infrequently swept. The students, first, hesitate to sit directly on the dusty desks and benches. Even though some of them use mouth blow and some use waste paper to clean the seats. The desks and benches in most of the classes are arranged in rows and columns do not allow students to engage in face-to-face group discussions. Only the multimedia managed for implementing the semester system facilitates to make of presentations for teachers. It takes a long time if it needs repairing. Most students from rural communities do not have access to essential technologies such as laptops/computers to engage in learning. Many of them hardly use emails and the internet though most of them use social media on android mobile phones. The teachers, often, use a whiteboard and marker for one-way delivery of ideas and concepts in the classes.

Perpetuation of Non-Transformative Pedagogical Culture

There is no way to acclimatize and engage in lectures due to the large class size, on average 40 - 50 students in each class an hour. Many students attend the class untimely and a few appear only in written tests. One by one, at different intervals of time, one pushes the door and enters silently, some look at the teacher and crack their mouths, but the lecture continues with short interruptions. Some look tired and come from a long way in a rush. The latecomers sit at the back bench and take out a copy from their pocket for note-taking. Sometimes, they leave the class in between. Few listen to the lecture carefully and take notes, some just pretend to listen, and others engage in side talk. Some sit in slouching posture taking the support of their heads on the top rail of the chairs. Few of them raise questions about the unclarity. It is easily sensed that the ideas and concepts shared in the class are completely unknown to them. Most of them become silent, without any response, looked strange and ignorant when they are allowed to share their ideas. Few of them, occasionally, respond with a way of simplistic and common definitions of textbooks as a memory of past schooling. They are less prepared and trained for the roles in the shift of the semester system. They seem to be less aware of how to engage in experiential and shared learning activities. The semester system requires to have students' role of 'managing time for the tasks and stress, being independent learners, realizing the purpose of the course, developing professional relationships with peers and teachers, taking responsibility, etc.' (Sharma, 2020, p. 241). The students have less realization of their roles in how to be active learners.

The students are rarely engaged in group work and any other individual tasks or activities in the class. One-way teaching/lecturing and passivity of the students seem ritual for the purpose of accomplishing the delivery of course contents. If the teachers assign the students to make presentations on a particular theme (sometimes by some teachers), they attend with handwritten bullet points burrowed from textbooks. The teachers could shift from the older one-way traffic flow of knowledge to student-centered pedagogies (Sharma, 2020). However, predominantly used lecture methods of teachers do not allow students to share and reflect on their prior beliefs, knowledge, and experiences (Rai & Acharya, 2021). They hardly engage 48 hours with the students in a course of 3 credits as the principle adopted by the university. It is unpredictable for students whether there will be classes or not on the days. The schedules are frequently interrupted by some reasons of teachers' absenteeism and political activities of sister organizations of major political parties (Kolbel, 2013).

Remesh [A student from Mathematics Education]: The teachers are irregular. They don't inform us, we just keep waiting in the class. Some of them easily say that the course is finished within a month, why do you worry? The last month of the semester

remains hectic for them and us. They just give us lecture briefly and quickly just to finish the course. Most of the ideas remain unclear. In the last semester [first semester of Feb. 2022], two courses were unfinished. Many friends could not score well.

Shahil [A student from English Education]: Some teachers use multimedia but some do not. We listen to the lecture of teachers and take notes.

It is evident that the classroom practices are largely guided by conventional pedagogies ‘assuming that the knowledge as a good that is consumed by the students and viewing that the students are empty vessels to be filled with knowledge’ (Broom, 2015, p. 80). The practices are largely guided by the notion that students are assumed as objects who are modeled as the desire of teachers. This is a disempowering approach that has hindered the active participation of students in learning. The students are passively confined in the classrooms with less making them realize they are the change agents in society (Broom, 2015). Normally, the students take ideas for granted. They hardly raise critical questions relevant to the discussion in the class. The students are rarely engaged in thinking, debating, questioning, doubting, counter/arguing, presenting, commenting, critiquing, comparing and contrasting, reflecting, analyzing, synthesizing, etc. in the classrooms (Sharma, 2020).

There are fewer practices of engaging students in shared, experiential, and reflexive learning. ‘Using inquiry, problem-based methods in classrooms that are respectful to students’ varied abilities and interests, rather than focusing instruction on cramming knowledge into students’ heads or using traditional teaching strategies, could empower students’ (Broom, 2015, p. 85). However, sometimes, the semester ends with an unfinished course and its purpose envisaged. The students are allowed to engross themselves in self-study of the textbooks. The independent or self-study of the students is largely guided by the pattern of questions asked in the previous examinations. They hardly ever go beyond consulting alternative documents or reference materials albeit availability of online resources and libraries. They have strong trust in textbooks as most of them use as only a resource for learning.

Text-Books as ‘Capsule’

Many students attend classes with textbooks in their hands/bags. The classes most of the time start with lectures on the basis of PowerPoint presentations or oral delivery of content knowledge. Some students start to turn in chapters or pages of the textbooks and judge the alignment of the lecture points. They surprise and ask not to be matched with the content. One of the senior teachers said, “First, I tell them to close their textbooks, then I start teaching”. Another teacher shared, “The students do not prefer big textbooks and other reference materials rather they want ‘capsules’ (small textbooks that are easy for preparing for exams with guessed questions and solutions).

Gopal [A teacher]: The students first see the availability of textbooks in the market. They prefer to buy the books written in Nepal that first come in the market. No matter who is the writer and how it has been written. Most of the students do not consult other reading materials rather than textbooks found in the market. When the final examination approaches near, most of them consult a guidebook and guess paper [books with solutions of the question items of the past examinations] written by someone unnamed.

Sonam [A teacher]: Most students just want to pass the examination. They focus on the courses of specialization and other core courses are neglected. They read textbooks a few days before the exam and attend the examination.

The textbooks written in a descriptive way in Nepali language, easily understandable to the students and sellable in the market, hardly guide students towards developing perspectives. The texts are organized exactly to the scope of the content of the course/curriculum. However, the intent of the curriculum is hardly reflected in the textbooks. Emphasis is given to the level of students rather than the standard envisaged by the curricula. The textbook culture in the

university has limited the learning of the students. The practices of constructing and generating new knowledge and applicability of what they learn in real-world situations are limited by the culture of digesting the content of the textbooks (Sharma, 2020). The students are habitual of rote memorization of the content focusing on the final examination. The role of teachers in supporting students to develop higher-order thinking – “analysis and critique, synthesis and response, debate and present, and apply and extend” (Krathwohl, 2002; Sharma, 2020, p. 235) is not so promising that the students are less likely to relate the knowledge and skills in their day to day lives. This is, a non-transformative pedagogical culture, a tradition of transferring content knowledge from textbooks could not be empowering to the students.

Ritual Assessment Practices

Internal assessment has five criteria the student’s attendance (5%), class participation (5%), individual assignment (10%), group assignment (10%), and class test (10%). These are assumed to be the means of evaluating the learning performances of the students. First, eighty percent of attendance is mandatory for students to score 5 points. However, there are no standards set by the university for those who appear seventy or sixty or any other lower percentages. The attendance below 80% indicates the repetition of the semester. But, there is a general tradition established providing marks based on their days of attendance (lower the attendance and lower the points). The rules set by the department are passed and legitimized by the Subject Committee. Second, class participation has an intent to observe and record the active engagement of students in learning. It is difficult to mark the students’ active learning engagement in the class through continuous observation and interaction with the students. The rare practices of allowing students to make class presentations are less followed by meaningful discussions, feedback, and comments from the teachers. If the students are provided the themes of class presentations, most of them come up with a few handwritten bullet points from the textbooks as there are rare practices of exploring ideas from multiple sources such as online sources and libraries.

Third, largely, individual assignments are provided to reproduce the texts of the textbooks except in a few cases of a few teachers. The assignments for the students contribute less to their own creation at large. Fourth, the group assignment generally follows a similar pattern as that of the individual assignment. A large part of it could not be the means of learning rather these are the rituals for providing marks.

Kamal [A teacher from Foundations of Education]: No teachers provide feedback on the assignments of the students. They just submit handwritten works to Nita [office assistant]. She collects the assignments as it is difficult for students to meet the teacher [most of the teachers come only to take their classes]. We provide marks at once at the end when the internal mark sheet is demanded by the office of the Dean. The students also do not want to revise the work.

Remesh [A student of Mathematics Education]: Generally, most teachers give us long questions about proving theorems as individual and group assignments. Most of us do and submit it by consulting textbooks. But, in the last semester [Feb 2022], one teacher of statistics gave us an assignment of analyzing the latest data government which was interesting. It took a longer time [4 weeks] but we learned much.

Bhagyashali [A student of English Education from Eastern Nep]: I don’t recommend other friends to come here to pursue their further studies. I felt it was good here but this education we got in Ilam. We never get feedback on our assignments. Only one teacher provided feedback.

Nita [A student of Nepali Education]: Most of us do not have laptops or computers, so how do bring a printed copy? It is expensive to make type and print in the marker. Please, let us do the work handwritten.

Low-quality internal assignments, descriptive in nature at large, could less be the means that the revised Bloom's taxonomy provides the ways of developing and assessing the higher order thinking of the students (Krathwohl, 2002). In addition, fifth, the test of an hour as the third assessment mode is half the measurement via objective test items and half the subjective items. Most students poorly perform the test answering the items wrongly and inadequately. These are the general practices in most of the courses in different departments. However, the students engage in independent works of developing seminar papers in a core course (Contemporary Educational Issues) and thesis writing in a specialization area. As informed by the teachers, a few students engage in producing original works but most of them reproduce the earlier works (on which I won't go into detail).

Students demonstrate their dissatisfaction with internal assessments. Individually and sometimes in groups, they request the teachers to take into consideration of their works sharing their constraints of not allocating time and effort. The mass of students create pressure if they achieve lower marks thereby threatening that they engage in brutal movements. The students expect maximum marks in internal assessments whatever their performances. One of the professors said, "Many students have copied the texts from Google as it is, what to do? I gave them the minimum marks so that they could appear in the final examination". Internal assessment in the semester system could not be formative making it as or for or of learning. The practices such as assigning students to engage in 'research and writing papers, class presentations, collaborative projects, case studies, fieldwork, and so on' (Sharma, 2020) that transform and empower students are rarely placed in the learning and evaluation processes in most of the courses. It has difficult to provide substantive feedback and comments so that the students could qualify further their work for higher grades. The internal assessments are rituals at large in order to certify the students to take the external examination as there is a rule to have internal evaluation marks to attend the external examination.

Accustomed Pedagogy and Assessment: Hindrance to Transformation

The political parties extended to university campuses through faculty unions, staff unions, student unions, and other groups that could be instrumental in reforming the university (ADB, 2015) but the power of affiliation to the parties gave rise to malpractices. The legacy of conventional teaching-learning practices, prevalent in the annual system, is dominantly visible in the semester system classes of teacher education programs. The practices limit students to engage in shared and activity-based learning. Implementation of John Dewey's thought of experiential and reflexive learning and the critical pedagogy of Henry Giroux could empower students so that students could understand the injustice and oppression in society and work for social transformation (Kessler, 2011). However, the reflective practice in learning is fairly overlooked and hence denied them to discover new ideas and perspectives. The students are less likely to develop critical thinking as they are less betrothed in '*critical self-reflection*' (Dirkx, 1998, p. 4). Non-participatory and non-experiential learning are disempowering approaches that have promoted the 'banking concept of knowledge deposition' rather than '*conscientization*' through engagement in dialogues (Freire, 1993). The domination of lecture methods passivates students in interactive learning thereby promoting the culture of taking ideas as granted. The inelastic, rigid, structured, and time-bound pedagogical culture is less likely to stimulate critical self-awareness and empowerment among the students.

The intent of the semester system is to make shift to the application of knowledge and skills acquired through experiential learning in their professional lives (Tripathi, Sharma, & Subedi, 2020). This is the way of involving students in the path of transformation through which they are allowed to move across a stage of ignorance to the stage of knowing and then the stage of becoming/the stage of applied action (Natanasabapathy, Bourke, & Joshi, 2011). However, the teacher-centric approaches compel students not to engage in meaningful transformative learning practices. The existing pedagogical practices are less likely to foster the

autonomy and freedom of students in thinking and acquiring abilities to participate freely and fully in rational discourse to explore alternative meanings and beliefs (Mezirow, 2000). They have less chance to have a greater understanding of the assumptions supporting their concepts, beliefs, and feelings. The non-dialogic approaches provide fewer chances to assess the self's views in relation to others. The system could not promote the adaptive learning in the socio-cultural context as the needs and aspirations of the students (Taylor, Cranton, and Associates, 2012). They have less chance of validating their prior learning and becoming critically aware of their presuppositions. Thus, it is difficult for them to be transformed their taken-for-granted frames of reference (meaning perspectives and habits of mind) to make them capable for changing their perspectives (Mezirow, 2000).

The diversified internal assessments are supposed to be the means through which the students engage in the creation, thereby applying the knowledge and skills they experienced in theoretical classes (Sharma, 2020). However, the internal assessments could not reflect the change the students needed. The envisioning of meaningful alternative assessment practices guided by constructivists, progressivists, and transformative learning approaches (Rai, Shyangtan, Luitel, Carm, & Khanal, 2020) are less visible. The framework for using alternative assessment in the class includes considering learners as constructors of knowledge, finding authenticity in materials and activities, employing dynamic, ongoing evaluation tools, and empowering students through the semester system (Janisch, Lui, & Akrofi, 2007) could not be hands-on practices. Thus, the legacy of conventional pedagogies and assessment practices expanded through an annual system guided by Western modern education are still dominant in the semester system. The process of reproduction is the structuration of non-transformative education.

Conclusion: Structuration of Non-Transformative Education

As viewed by Anthony Giddens, the 'actors' (teachers and students) in the university setting are supposed to follow the 'structure' or rules and procedures (Craib, 1992, p. 29) of the semester system, thereby adopting shared, experiential, critical reflexive, and transformative pedagogical culture and performance-based assessments. The 'actions' of teachers and students could be the power of 'transforming' (Rooyen, 2013) themselves and then the unjust society. The 'agency' (Kaspersen, 2000, p. 34) of teachers and students formed the actions in a way giving rise to the reproduction of the structure of the annual system. The reproduction is the expression of 'practical consciousness' of the 'actors' that gave rise to the 'unintended consequences' (Craib, 1992, p. 25; Roobyn, 2013, p. 497; Kaspersen, 2000), non-transformative educational practices. Inadequacy of resources such as trained teachers and students in the culture of the semester system, infrastructure, and materials to adopt technology-based learning is less supportive to implement the transformative practices of education in the semester system. The political affiliations of teachers and students provide them the power to act and exercise their taken-for-granted agency in forming the non-transformative structure in the new system. This has weakened the power of the anticipated institutional structure to control their activities of pedagogies and assessment. The dominantly reproduced structure thus has formed is now normative and has become norms and values in the university. The intent of promoting transformative education has almost failed to achieve. The teachers and students need a radical shift in agency and actions to form these practices in the semester system.

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Inquiry-Based Approach for a Transformative Learning

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Introduction

There are several means and methods of imparting knowledge in the students from their early age into their adult life. Pedagogy is the method that teachers apply while delivering the curriculum to the class. The teaching approach is largely affected by the teacher's personal experience, the purpose of teaching and the context. However, the process of teaching and learning has changed over time, and the techniques applied a decade back are not the same today. It has been witnessed that due to development of ICT in education sector, we are obligated to look into different innovative approaches of pedagogy.

The sole aim of this paper is to highlight relevancy of the inquiry- based approach in learning that takes place in the classroom. Learning is the process of acquiring, transferring and producing new knowledge. But reviewing the current learning approach in school education we are largely focusing on the transferring pedagogy rather than transformative pedagogy. Transformative learning allows students to reflect, connect and construct a new meaning of knowledge.

For transformative learning to take place students should get an opportunity to reflect on their prescribed knowledge which they have acquired through personal experiences and sociocultural aspects. New knowledge can be generated when students get involved in investigating, reading, actively participating in hands on activity. (Duran and Duran 2004). Active participation in learning fosters transformative learning. Inquiry- based approach in teaching and learning is challenging as schools are required to follow the CDC curriculum framework resulting in stressful lesson planning in order to complete the course in stipulated time. But a pertinent question was never answered as to do that child really earned a meaningful learning and knowledge., When placed in a real world did the child was able to display decision-making skill? Was he/she could bring the effective solution to a real problem? Most importantly, was they a competent global player? Based on my knowledge and experience if I have to answer these emerging questions my answer would be NO. The reason is because the curriculum framework that majority of our schools are following is teacher centric curriculum. The students are merely a passive receiver. The lesson plan designed is all as per teacher's interest and comfort. Other thing that hinders student's active learning environments is also due to course completion stress that teachers couldn't avoid. It has been witnessed that the students' meaningful learning and understanding was lacking

Literature Review

Innovative Pedagogy such as inquiry- based learning approach basically provides foundation in developing 21st century skill. Fullan, 2007 explained., Inquiry based learning is more like a multifaceted activity which includes process like making observations; posing questions; examining books and other sources of information to see what is already known and also planning investigations; reviewing what is already known in light of experimental evidence; using tools to gather, analyze, and interpret data; proposing answers, explanations, and predictions; and communicating the results. Therefore, teachers while adapting inquiry-based learning approach in their teaching can consider above mentioned actions. Transformative learning can be derived from the level of hard and soft skills that students are able to develop in their learning. 21st century skills is directly linked with students meaningful learning as it allows student to connect with real life situation equipped with an ability to solve the problem with their gained knowledge. Transformative STEAM education Approach is inevitable in teaching and learning setting. Mezirow (2012, p. 76), refers to the process by which “we transform our

taken-for-granted frames of reference to make them more inclusive, discriminating, open, emotionally capable of change, and reflective". Mezirow, (1981) explained "Knowledge is gained through critical reflection gained through transformed consciousness or perspective transformation" STEAM education has the dynamic synergy between different disciplines to produce the next generation of innovators of the world. The educational organizations today are continuously working to revise and explore new methods and strategies to arm students with the skills and empower them to be successful innovators and creators in the future.

Research Methodology

The methodology of my paper is participatory action research. The core participants of my research will be my teachers and students and principal if requires. My focus is on the middle level students as I believe that at the junior level, we have been able to adapt Inquiry based learning. Hence my student's participant will be the students and teachers of grade 5 and 6. My data collection shall be based on the class observation which could be online, recorded one or even face to face class visit. And also based on the interaction with my participants that is teachers and students. I shall also carry out research interview and questionnaire that I shall prepare relevant to my research issue. Mainly it will be driven by structured interviews which verbally administered questionnaires and a set of predetermined questions will be asked. P. Gill, K. Stewart, E. Treasure and B. Chadwick argued... that our consideration while designing an interview schedule it is imperative to ask questions that are likely to yield as much information about the study phenomenon as possible and also be able to address the aims and objectives of the research. In a qualitative interview, good questions should be open-ended, neutral, sensitive and understandable.

Data analysis procedure

Firstly, after the interview is completed as a researcher, we should make sure that it is recorded, as it protects against bias and provides a permanent record of what was and was not said. And it can be helpful to make notes during and immediately after each interview about observations, thoughts and ideas about the interview, as this can help for the data analyses which is an integral part in research. Data analyses is the stage wherein we interpret our findings through recordings, interview, questionnaire, pictures and videos or a voice recording. The main objective of Data analyses is to derive outcome from the data collected. Le Compte and Schensul (1999) define analyses as the process a researcher uses to reduce data to a story and its interpretation. Data analyses is the process of reducing a large amount of collected data to make sense of them. Hence, I shall initiate data analyses procedure right after my data's have been collected that involve summarizing the information, linking it to the issue and organize. Bernard (2000) suggest that hermeneutics or interpretive analyses refers continually interpret the words, text or phrase to understand their meaning and their directives. The narrative thematic analysis process I will be using consist of organization and preparation of the data, obtaining a general sense of the information, the coding process, categories or themes, and interpretation of the data (Michelle, 2015).

Findings

At my school, as we have introduced International primary curriculum for grade 1-6. IPC is the British curriculum for the Elementary level. IPC is an extensive and innovative curriculum which helps in child's personal development along with international understanding of the issues and ways to tackle them. IPC is all set on the basis of brain friendly learning priorities. We give priority to it and follow the knowledge-skills-understanding (KSU) for the assessment.

Students at grade 7-10 are taught International Middle Years Curriculum (IMYC) course. It is the British curriculum run in our high school. This curriculum equips students with the required knowledge to be prepared for the real world. It is also based on the brain friendly learning priority. Therefore, like IPC, IMYC is also carried out in almost in same manner as IPC. Each unit is based on the big idea and our school gives high priority to this big idea

helping students to develop their perception. This course is further supported with the media presentation that students prepare throughout their academic journey. This curriculum is further incorporated with the national curriculum so that our students get to prepare for their board exams.

One of the areas of struggle we are facing is the course content and teaching methodology which varies vastly in comparison to Curriculum development center recommended course structure. While grade 1-4 students are taught CDC integrated curriculum, it is not so easy for students at higher levels. The process of teaching and student engagement is completely different. So, our students might be over worked as they will have to cover CDC recommended course as well. So after 3-4 round of our meeting with teachers and principal we are working on how we can integrate inquiry based learning for middle level classes. As my focus for this research is for the Grade 5 and 6, we will be concentrating on revising our lesson plan for these classes. As we need to prepare our students incorporating CDC curriculum one option that best resolve our issue would be to come up with multidisciplinary curriculum. As it focuses on theme-based teaching also allowing to connect with different discipline. By doing so we shall be adapting Inquiry based approach without missing CDC curriculum the same time a transformative learning shall be our main focus.

Discussion

As an educator my objective in writing this paper is to emphasize on our role as an educator. I believe, we as a teacher should be focusing on demonstrating our role as scaffolding to contribute in a child development. As scaffolding emphasizes on being a role model and being a coach in demonstrating the real-life situational activity. Hence be it in the classroom or outside the classroom environment a child should be able to connect their knowledge with real life situations. Being able to connect helps students gradually improve their 21st century skill.

Therefore, the main theme of Inquiry bases learning approach is to create an interactive, engaging and a transformative Journey. I believe adapting to such innovative pedagogy in our teaching and learning journey, both as an educator and learner we can benefit in terms of better academic achievement, learning outcome and enhanced skills that best suits the 21st century workforce requirement.

Hence, I am confident that this paper will be a guiding tool for me to carry out inquiry-based learning approach in my teaching Journey. Mainly to influence the teachers who are not only seeking for the information but are aiming to reform their teaching and learning approach by adapting to an innovative approach like Inquiry based approach. Despite teachers any layman in an education sector wishing to get updated information in regard to its impact on student's transformative learning can approach to this research paper as a directive as it also discusses on various teaching techniques based on inquiry-based learning approach.

Thus, as an educator our focus should be to bring in transformative pedagogy in order to equip our future human resources with 21st century skill which includes creating integrated curriculum and innovative pedagogy such as inquiry-based learning. The approaches that I am able to learn from the concept should allow me, my teachers and all the stakeholders to be capable of adopting reform in teaching. Killen (2007) argues that students are not considered as '*tabula rosa*', a blank sheet of paper, so students are provided with ample of space to engage, explore, and elaborate major concept of the content that too in connecting with their past experience and they feel trusted and responsible about what they are learning. It also helps them develop new skills and qualities like "resourcefulness, independence, confidence, patience and tenacity"

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Teaching and Learning English Using Visual aids in the Secondary School Classroom with Reference to the National Examination Board

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Transformative learning through visual aids is valued in Nepal's modern educational system, which requires pupils to learn in the 21st century and during pandemics. It reveals the student's aptitude for studying in a secondary school setting. This study intends to explore how students interact with the visual aids in their textbooks and shifts of upgrading interactive learning and assessment to other places during the learning process and evaluation.

Author developed a cross-cultural interaction with the funding donor and author to discuss National Examination Board concepts that may be conveyed via study. The reasoning was employed to communicate research ideas, but following the awarding of NEB Research Grants, it is comparable for significant, as significant in secondary classroom research methodologies signifies benefits to students, instructors, and the Nepali Examination Board. In order to evaluate learners' performance using visual aids, the study connected the assessment of Nepal with that of secondary level pupils (Marsh et al., 2019). With the use of the 'Visual Spatial Intelligence Theory' that research participants are exposed to on a daily basis throughout their school time, it sought to discover solutions to perceptions and provide practice for the instructional modules internal school assessments, and board examinations. The students are practicing by real class scenarios, like workshops, virtual presentations and interactive projects by learner-directed approach (Thomas, 2000; Brown 2003), and author is working for transforming education skills and sharing references of examination to improve the participants learning habits by sharing different concepts of visual aids. The specific goal of this study was to examine and changes 'learners' performance and evaluation of secondary school classroom' through learning and examination by expanding knowledge in research works of English language teacher. Students were given access to learner's performance through visual aids with the text-book, that is, with picture cultivation of secondary school classroom.

The numerous problems in the classroom are encountered every day in various courses, making it better for instructors to handle them on a regular basis. The author discovered that youngsters like participating in extracurricular activities over his twelve years of teaching in various schools and colleges of Kathmandu Valley. In addition to these few concerns, there are other more that cause disruptions in Nepali education for pupils, including as strikes, challenges with the electricity supply, a shortage of instructors, etc. It all comes down to a country's political situation, and that troublesome situation turns the learning atmosphere and classroom procedures toxic. This study's investigation is restricted to the use of visual aids in classroom instruction and learning, where students' experiences were profiled. Similar to the last investigation, this one focused on participant narratives and discovered variations in secondary school students' learning when using visual aids and when not (i.e. in lyceum). It has not yet looked into psychology and neuroscience. Previously, the author would recruit volunteers from remote parts of Nepal, such as the Mugu district, but after the study got underway, the author discovered it was challenging to go, and later, the author discovered the research subject did not apply to schools in remote places.

Good visual assistance are no longer just found seldom or infrequently. Usually, a lot of thought goes into making them. It is advisable to create a drawing that has problems and then pose queries like, "Is it what is desired?" To the degree that creativity occurs in the interplay of a person with context, we need to concentrate as much on the traits of the individual and the human's work relative to the situation," Sternberg (2006) said (p. 95). Do instructors need to be creative themselves, as teachers? was the question posed by Esquivel in 1995. (p. 190). Is it

really as simple and brave as we make it? Can they manage the scholar's quest by building the knowledge piece by piece? Is it as intriguing as we make it out to be? In addition, is the visual organized in appearance? We should make the most of the appropriate visual aids if a lot of work went into creating them. The fundamental, scientific, economic, and technical literacies are developed with visual and factual literacies, multicultural literacy, and global awareness in the area of digital-age literacy. The positive motivation to students helps to develop learning environment into active engagement for learners in learning activity. The same is true with 'Inventive Thinking', which emphasizes curiosity, creativity, and risk-taking together with higher-order questioning and solid reasoning in the context of education. Teamwork, cooperation, and interpersonal skills are the aspects of civic, social, and personal responsibility that interrupt interactive dialogue in the section on high-quality communication.

As well, high productivity appears to prioritize, plan, and regulate for outcomes, i.e., the high-quality usage of real-world tools with the ability to yield amazing by transformation in pertinent items in the training industry. Learning levels are determined by letting students to utilize visual aids devices, followed by instructors, parents, or peers who may look up techniques to educate children how to use visual aids ethically. They assist them as the pupils require. Learning finally takes place as the gaps between the known and unknown are reduced. The learner consequently develops autonomy. According to Johnston (2018), when students study naturally, they learn profoundly and joyfully. Learn about the more important, continuing discussions in the literature that are completing and expanding earlier investigations (Silva, 2008). It doesn't have to be fully created and finished at this time because the school may request significant modifications in the research at the idea meeting; in other words, it is believed to be brief and outline the key literature on the research concerns (Cresswell, 2009 as cited in Nguyen & Larson, 2015). The Visual-Auditory Kinesthetic (VAK) learning styles model was used by the author when it was carried out more study since it is an easy approach to describe and comprehend learning styles. The Vision, Auditory, and Kinesthetic (VAK) learning style employs these three major sensory receptors to identify a person's dominant or preferred learning style. Two obstacles present in the classroom setting limit a student's capacity for accurate and efficient analysis.

In contrast, the author used spatial imaging while working on the study projects to implement some of the strategies. i.e., the representation of spatial interactions. Because it involves 'spatial imagery, particularly if it is a three-dimensional mental representation,' if a author asks you to envision the room in which you spend the most of your awake time, you will have done so. Cognitive mapping and control are the ideal concepts to link to this one. We could employ techniques in the classroom such as looking at things differently, having students work in the ways they like, finishing the image, sketching the diagram or map, looking for and anticipating diverse points of view from students, and not forgetting to include their faces. Author may additionally find that visualization comes effortlessly while working in field and also conducting the interviews. An author may additionally have to make visualizations stand out more; this makes sure new material is apparent amongst all the different visible images that have floating around interior author head. Author use color, layout, and spatial business enterprise in associations and use many 'visual words' in assertions (George, 2002). Examples consist of seeing, pictures, perspective, visuals, and a map.

However, the author has made use of mind maps. Anywhere it is possible, the author may also include illustrations and color photos in the text. If the author does not use a computer, the author must make sure there are at least four different colored pens available. Systems diagrams can help authors see the connections between system components, such as the major engine components or the idea of sailing in balance (Bostock & Heer, 2009). As a result, the author must utilize images in place of words and underline important and supporting connections with color. The visual journey or tale approach aids authors in remembering

difficult-to-'see' stuff (Kuhn, 2020). An appropriate illustration of a memorization technique is the visual tale approach (Hattie, 2012). A writer, teacher, or student can swiftly peg phrases and circumstances; but, if the writer has to learn at least the first ten peg words, after that, the capacity to picture helps the author peg information fast.

More precisely, the author wants to know how students in a classroom may acquire the English language by using visual aids. After conducting a narrative inquiry into the research methodology, the author interviewed four participants from a secondary school in the northeastern Kathmandu Valley and conducted casual conversations with them as well as class observations. The author also watched their behavior in the classroom, library, audio-visual lab, and computer testing facility. For interpretation, analysis and discussion of the data, author read and re-read them, searched patterns and saw the emerging themes and discussed them within the theoretical framework of Howard Gardner's 'Visual-Spatial Intelligence' theory of multiple intelligences with reference to the National Examination Board of Nepal. From the interpretation, analysis, and discussion of the data, Author learned that learning a language like English through visual aids enables the learners to develop positive social skills, new techniques of reading habits in visual aids supporting the words of books, and learning constructing knowledge for life.

By using technology-rich learning situations in the classroom, this novel method of teaching habits in P-Model Classroom transforms students' practices into visual literacy. As a result, the teaching strategy enhances and fascinates students' creativity, creating a well-organized classroom and involving them in various creative work strategies. Therefore, this new manner of learning habits aids students' attempts to comprehend course material. These findings also point to a reliable technique for secondary school students that decreases the uncertainty of school activities while saving teachers' time.

I believe that "The Third International Conference on TERSD 2022" is the appropriate venue for presenting this paper because it is interconnected with the conference's subtheme of "Interdisciplinary and Transdisciplinary Education and Research" and directly related to the conference's main theme of "Sustaining and Thriving Transformative Educational Research and Practice in Challenging Times and Contexts."

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Teachers' Self-efficacy and Classroom Management Practices

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Abstract

Transformative education considers learners as participants in knowledge creation and empowers learners to analyze and challenge the social status quo. Teachers with higher self-efficacy are effective in managing a classroom. In a well managed classrooms, learners are part of the knowledge creation and the teaching and learning is student centric. With that regard, this study presents Nepali Classroom Management Practices(CMP) and Teachers' Self-Efficacy (NTSE) instruments. To measure the correlation between the Classroom Management Practices and Teachers' Self-Efficacy, the study developed TSE and CMP tools using the e-Delphi technique. I conducted initial qualitative interviews to glean informative about how Nepali public school teachers perceive with regards to their self-efficacy beliefs and classroom management practices. I used three rounds of e-Delphi processes to finalize the questionnaire. At the end, 28-items for NTSE and 24-items for CMP instruments were developed to measure Nepali public school teachers' practices with regard to management of classroom and their self-efficacy. These scales will inspire a paradigm shift in teachers' professional development opportunities resulting in improved school education in Nepal.

Keywords: transformative education, paradigm shift, e-Delphi; instruments;

Introduction

Teachers' self-efficacy denotes judgments that instructors use in their capabilities to carry out certain academic tasks mandated to influence students' academic achievement and learning (Dellinger et al., 2008). Past researchers have found that teachers' self-efficacy is a strong indicator of a variety of outcomes concerning teachers and students (Aldhafri, 2016).

Management of classroom entails teacher's attitudes, professional values, and capabilities that are tailored to assist them in meeting their academic responsibilities. Classroom management is linked to actions taken by teachers that are aimed at providing an encouraging teaching-learning climate (Djigic & Stojiljkovic, 2011). Teachers' classroom management styles can be categorized into three; participatory, collaborative, and non-intervening (Martí & Baldin, 1993).

Both new and experienced teachers continue to deal with classroom management as an important factor when it comes to teaching and learning management (Rose & Gallup, 2006). According to Lakes and Smith (2002), a well-organized classroom is a prerequisite to enhancing the effectiveness of teaching learning processes in a classroom. In a survey conducted by American Psychological Association (2006), teachers acknowledged instructional skills and management of the classroom as a must to have to manage disruptive attitudes and overall safety of the students in the classroom. Given the high demand for teachers to create a suitable learning ecology, teachers' competency in managing a classroom is essential (Martin et al., 2008). While some existing tools were partly able to measure the classroom management practices such as ABCC and ABCC-R, none have been relevant to Nepal and none have managed classroom practices.

In Summary, in Nepal, no research has constructed and measured the teacher self-efficacy and classroom management practices of Nepali secondary schools. Therefore, the main objective of this study was to construct and validate scales that can measure Nepali secondary

level teachers' classroom management practices and their self-efficacy cascading the effects to improve quality of public school education in Nepal.

The e-Delphi Method

Delphi techniques help achieve consensus on multiple opinions. Experts who have expertise and interest in a field can be selected as a panel. They are invited to provide feedback on the research questions through multiple rounds and their feedback are an unbiased reflection on contemporary knowledge (Keeney et al., 2001). Historically, a paper-based questionnaire was used to collect information from the experts as part of the Delphi processes. As with the evolution of research methods, digital methods, called e-Delphi methods are being used to gain consensus from a panel of experts. The e-Delphi is a method for organizing communication processes of a group in order to deal with an issue (Green, 2014). The e-Delphi technique permits the participants (experts) to engage and communicate with the researcher at their own pace and time until consensus is reached. Bardhan, Ngeru & Pitts (2012), underscored the importance by stating how e-Delphi method is crucial in this era of technology for conducting evidence-based research because it allows the experts to submit their opinions and it enables participants to post their opinions and accumulate their thoughts online. The e-Delphi technique allows researcher to carry out researches by recruiting experts from far flung regions which ensures geographic diversity of experts and their opinions. The researcher wanted to interview experts from outside of Kathmandu valley and interviewing them was possible only through online mode. Additionally, the e-Delphi methods are famous for a quicker response from the experts, for ensuring anonymity, and for reducing costs or resources (Boulkedid et al., 2011). Therefore, to develop and validate Nepali teachers' classroom management practices and their self-efficacy instruments, the study used the e-Delphi technique.

Design of the e-Delphi Method

The first stage of this study was to set up a virtual discussion with five experts who were purposively selected based on their proven experience in teaching at the secondary level. During the first stage, the researcher hosted virtual discussions with subject matter experts and glean the information related to teachers' self-efficacy and classroom management. This stage is like the classical Delphi method. As opposed to using post-mail as in classical Delphi, the researcher used e-mail, and online survey platforms such as Google Forms, and Zoom platforms to collect data. This is why it's called an e-Delphi method. Donohoe et al. (2012) stated that achieving consensus through a Delphi method remains disputed in the literature. Whetton and Georgiou (2010) remarked that 75% as the median threshold can provide enough coverage to have a reliable a valid tool. As such, for this study, at the outset, it was decided that the threshold for consensus would be 75% or higher.

Experts Selection for the e-Delphi

For this study, experts were selected at two levels; 1) five experts to participate in the qualitative discussion to unpack the issues related to Teachers' Self-Efficacy and Classroom Management 2) 30 expert teachers who participated in the subsequent two rounds to rate the questionnaires developed because of the first qualitative discussion. The participants in the qualitative discussion had three inclusion criteria met; 1) gender 2) subject-specific heterogeneity 3) location of their workplace. The experts at the qualitative discussion comprised two female and three male teachers who were teaching mathematics, science, English, and social studies within and outside of Kathmandu Valley. Participants were selected for rounds 2 and 3 based on their years of experience and subject-specific diversity. The researcher emailed the experts to recruit and participate in the e-Delphi processes and included items and required information about the consent. Where needed, a follow-up call was made to clarify any confusion. Given their contribution to Nepali public education, the researcher personally knew the experts. For anonymity, the participants were not introduced to each other to ensure unbiased opinions.

To select 30 experts, the selection criteria were a) secondary level teachers with a minimum of 10 years of experience, b) teachers from both rural, semi-urban, and urban parts of Nepal who have 10 years of experience c) interested in the research topic and willing to participate in two rounds to rate the questionnaires to reach a consensus. A diversity in panel representation could provide an unbiased reflection of the contemporary knowledge or perception about the teachers' self-efficacy and their classroom management practices (Keeney et al., 2011).

Data Collection

The data were collected in three rounds from November 2021 to February 2022 in the form of a virtual meeting, an online survey, and email communication.

Round 1: Exploring contents and issues. Round 1 was carried out through a series of virtual meetings with experts. The experts were contacted via email and requested to participate in a meeting that would explore the issues and contents relating to teachers' self-efficacy and classroom management practices. The email included details about my research ideas and the specific points that the meeting would discuss. The researcher held five 1.5 hrs. meetings to unpack the issues and contents. The virtual meetings were recorded and transcribed. The researcher carried out a content analysis to draft questionnaire items to proceed with round 2.

Round 2: Consensus on the draft questionnaires. After round 1, 30 experts were administered an online survey (Annex I) and requested to rate the items on a five-point liker scale (1- Strongly Disagree (SD), 2- Disagree (D), 3- Neither agree nor disagree (N), 4- Agree (A), 5-Strongly Agree (SA)). Follow-up strategies such as phone calls, email reminders, and social media messages were employed on a fortnightly basis. Quantitative data were collected from round 2. Therefore, to note a consensus of 75%, or greater on each benchmark, the descriptive statistics were applied. The sum, mean, and percentage were calculated in the Microsoft Excel database.

Round 3: Consensus on the questionnaires. Items that did not achieve a minimum consensus level of 75% were removed in round 3. For the round 3, 30 experts were administered a survey with 28 items for teachers self-efficacy and 24 items for classroom management practices (annex II). The panel members were provided with the results and asked to rate the retained items from Round 2. Quantitative data were collected from the round 3. Therefore, to note a consensus of 75% or greater on each benchmark, descriptive statistics were applied. The sum, mean, and percentage were calculated in the Microsoft Excel database.

Results

Round 1: Qualitative discussions were held with five experts. The data were transcribed and then analyzed and then create items for questionnaires. From Round 1, 34 items for the Teachers Self-Efficacy questionnaire and 64 items for Classroom Management Questionnaire were drafted. Out of 30 experts, 26 responded with an 86% response rate.

Round 2: A total of 98 items of which 34 from teachers' self-efficacy and 64 from classroom management practices were administered. A total of 26 questionnaires were returned in Round 2. During this round, 27 (79%) items from teachers' self-efficacy and 48 (75%) items from classroom management practices achieved consensus at 75% or above. Table 2 (annex III) summarizes the items and their consensus percentage for teachers' self-efficacy questionnaire and table 3 (annex III) summarizes the consensus percentage for classroom management practices.

Round 3: In Round 3, based on the rating received during the Round 2, 28 items for teachers' self-efficacy and 24 items (annex II) for classroom management practices were administered. To refine the items for Round 3, the researcher took experts' feedback during Round 2 into consideration, and questions with similar spirits were merged. That's how even from the accepted items of classroom management, 24 uniquely valuable items were

administered. Since the 100% consensus was achieved at this round, no further amendments were put forward. This concluded the e-Delphi procedure.

Pilot Testing of the Instruments

After the e-Delphi processes, the researcher carried out a pilot study to test the content validity and the reliability of the questionnaires. The study administered 54 items to 40 secondary-level public school teachers from across the Kathmandu Valley. A 100% response rate was achieved for both the classroom management practices and teachers' self-efficacy scales. The pilot study included 29 items related to teachers' self-efficacy and 25 items for classroom management practices. The pilot study data were analyzed using the SPSS software. The result from the study showed that the reliability of both questionnaires was 0.86% which is above the threshold alpha value of 70%. The individual reliability alpha value for teachers' self-efficacy scale was 0.77% and for classroom management practices was 0.83%.

Based on table 8 (annex IV), the items listed are accurately measuring the constructs. For example, an item (#12) that reads "with my experience, I feel confident about what I am teaching" achieved 100% during the third state of e-Delphi processes. The overall Cronbach alpha (α) value of 0.86. The item analysis result indicates that the Cronbach alpha (α) value if deleted the aforementioned item is 0.85, which means if we delete that item the alpha value won't improve and therefore retained the items and considered a reliable item to measure teachers' self-efficacy. Therefore, the items that achieved 100% consensus during stage 3 of the e-Delphi processes are reliable and could be included to examine teachers' self-efficacy and classroom management practices in the Nepali context.

Conclusion

An e-Delphi method was used to construct and validate Nepali teachers' classroom management practices and their self-efficacy scales. The questionnaires aim to understand teachers' belief in their ability to effectively handle the teaching-learning processes in their class and to explore the techniques that teachers use to keep students focused, organized, and focused to ensure effective delivery. Teachers' perceived beliefs are human intuition which can inspire major paradigm shift in transformative education in Nepal. From the first qualitative discussions with experts to the subsequent rounds of the e-Delphi stages, I incorporated all feedback, comments, suggestions, and opinions from all experts to develop comprehensive tools. This study brought forward two questionnaires that can be used to measure Nepali teachers' self-efficacy and their classroom management practices. I followed scientific procedures to develop these comprehensive tools so that future studies can continue to build on these tools and make them contextual to the time and context. As the Government of Nepal continues to invest resources in teachers' professional development, these newly established tools can help measure the successes of the training and inform the government's interventions required to make teachers more effective in their classroom engagement. Hence, this study was crucial in constructing instruments to measure teachers' self-efficacy and classroom management practices resulting in improved public school education in Nepal.

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Factors Affecting Entrepreneurial Traits among the Institutional Schools & Teachers, and Investors in Kathmandu Valley, Nepal

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Background

Entrepreneurship not only brings innovation but also supports enhancing economic and social transformation. It helps shift from survivalist professional traits to opportunity-driven businesses (Gries & Naudé, 2010). However, many factors play a vital role in shifting from survivalist to opportunity-seeking behavior. These personal behaviors supporting a person to choose entrepreneurship as a career are termed the entrepreneurial trait. If entrepreneurship traits are identified, there is always high scope for bringing transformation in people's lives. Entrepreneurship should not be limited to understanding business and profit only, but the social transformation agenda has the potential to enhance indigenous knowledge and constructs. There are various phrases that we use to define entrepreneurial traits. Among them, the most common is modifying existing products and ideas (Ramdani et al., 2019). Entrepreneurship scholars give higher value to innovative thinking (Gundogdu, 2012). Innovation and modification ideas come if favorable external conditions and a supportive environment (Kraus et al., 2022). These favorable conditions support a person to think differently than other people (Clausen, 2020). Due to the latest digital transformation in the last few decades, the definition of entrepreneurship has become dynamic. The role of firm owners, who put their efforts into the sustenance of their profession, has been changed to the entrepreneurs as the idea/ product modifier, innovator, and out-of-the-box thinker (Corvello et al., 2022).

Intention and action are essential in entrepreneurship to materialize the entrepreneurial activities (Oliverira & Rua, 2018) as the entrepreneur behavior is only achieved through the transformation of one's intention into the behavior (Bogatyreva et al., 2019). Entrepreneurial activities in the country lead the nation to economic prosperity (Kritikos, 2014). However, many personal and external factors restrict/enhance entrepreneurship. It is witnessed that many people have a higher level of intention to become an entrepreneur, but when it comes to career decision-making, most people choose the easy-going one, that is, nine to five jobs (Raffiee & Feng, 2012). Despite the firm intention to become an entrepreneur, there is always a missing link to transform that intention into behavior in the countries like Nepal.

Nepal's economic development is slow and traditional and mainly relies on the survival engagement of people as the latest transformative entrepreneurial sectors such as Information, Communication, and Technology, are yet to flourish (Government of Nepal, Ministry of Finance, 2022). There are various reasons. Among them, lack of risk-taking propensity is the prominent one. Nepali people show interest in entrepreneurship but lag in converting their entrepreneurial intention into behavior (Paudel, 2019). There are many causes, such as lower levels of entrepreneurial activities, unavailability of specialized human resources, and segmented capital market are some prominent external factors (Villanger, 2015). Besides the causes mentioned above, personal traits are always essential to become an entrepreneur, which is evident in the faster growth of e-commerce-related entrepreneurship in Nepal (Vaidya, 2019).

Some areas, such as agriculture, information and technology, service sectors such as hospitality businesses, and individuals knowledge management, identified potential areas for entrepreneurship in Nepal (Khatri, 2019). However, people hesitate to consider these entrepreneurial activities as their career. Despite the well-accepted importance, data show that

Nepal lags in entrepreneurial activities, resulting in sluggish economic growth and stagnant economic development (Paudel, 2019). The family traditions, indeed caste-based professions, are only reflected through the small entrepreneurial activities in Nepal that are yet to be transferred from the survivalist tradition to opportunity-seeking entrepreneurship. Its expansion has been limited due to different factors. Many alternative areas of entrepreneurship are yet to be explored in Nepal (Karki, 2020).

The returnee from the foreign employees seems to have a higher entrepreneurial intention (Mainali, 2019). Still, due to a lack of entrepreneurial traits among the people, it has become hard to capitalize on those intentions to convert into behavior. It is widely accepted that entrepreneurial activities transform the country's economic development and sustainability. However, converting that intention into behavior is always hard in Nepali. For this, we can quickly think about the factors that support or restrict a person from choosing an entrepreneur as their career.

Locus of control, need for achievement, risk tolerance, and eagerness to be self-made are some important personal traits (Karabulut, 2016) to transform a person from an intrapreneur to an entrepreneur. Countries' financial policy, people who are near the power centers, the way of their growth, and societal norms and practices are also equally important (Hofstede, 2011) for entrepreneurial behavior. We witness a more considerable dropout of novice entrepreneurs because of a lack of human resources and adaptation of today's transformative business model, including ICT (Mohebifar et al. 2019).

As discussed, structural and personal factors are associated with people's entrepreneurial behaviors. It is widely accepted that personal characteristics always prevail over the systemic factors of entrepreneurship (Karabulut, 2016). So, this study has answered the research question, "what are factors that could transform a person from a job seeker to an entrepreneur in Nepal". To answer the question, this study focused on understanding the entrepreneurial traits of institutional school owners and investors.

Methods

A randomly selected sample of institutional schools' teachers (N=171) and school investors (N=125) was surveyed in the Lalitpur district using a structured questionnaire with 22 items measured on the Likert scale. The items for the questionnaire were adapted from multiple sources to adjust six main criteria: Risk Taking Propensity, Need for Achievement, Locus of Control, Tolerance, Innovation, and Enthusiasm as the means of measurement (Hofstede, 2011; Marques et al., 2018; Rohman & Miswanto, 2020). The items are the internal consistency tested ($\alpha = 0.71$) and validated among the 31 respondents, which is more than 10% of the total sample. To explore the factors that describe the personal traits of entrepreneurship, the principal component analysis (PCA) was conducted by using SPSS 21. The components extraction was made for the factors with more than 1 eigenvalue, visualized by a scree plot. The items with more than 0.5 correlation coefficients with the latent factors were considered descriptive items (Yong & Pearce, 2013). The Kaiser-Meyer-Olkin (KMO) of ($>.5$) was computed to test the sample adequacy; Bartlett's Test of Sphericity (Significant at >0.000) was conducted to test whether the correlations between the variables are sufficiently large for factor analysis.

Results and Discussions

The KMO measure of sampling ($=.78$) was more than 0.5, and Bartlett's Test of Sphericity [$\chi^2(78) = 873.5, p < .001$] justified the sample adequacy for the PCA. Under the criteria of correlation of each item with latent factor $>.5$ and eigenvalue >1 , three factors were identified. Among the 22 items, PCA retained 13 items, and dimensions were reduced to three, which were identified as "self believe (number of items=6)", "foreseeing future (number of items=4)," and "self-esteem (number of items=3)". For all 13 items, communalities extraction $>.5$ signifies the model's generalizability with the cumulative percentage of Extraction Sums of Squared Loadings 53.89.

Self believe, self-esteem, and future foreseeing are the characteristics of visionary persons. A person who knows what they are doing and what their effect and consequence are is always conscious and continually works to become successful (Kirkwood, 2009). The study conducted by scholars to understand the personal traits in different countries such as Albornoz-Arias and Santafé-Rojas (2022) in Columbia, Ghimire, and Neupane (2020) in Nepal; Prihadi et al. (2018) in Malaysia also found that people who have the higher level of confidence with self-esteem have a significant level of entrepreneurial trait. It is also evident that people with reasonable certainty to take the risk are always paid. The same applies to entrepreneurship. The people can understand the consequences of each activity and have higher levels of transformative behavior to accept and mold themselves to adapt to the change- becoming successful entrepreneurs.

Conclusion and Implications

The study reveals that despite the many entrepreneurial traits described by the literature, the major transformative forces to becoming an entrepreneur are the higher degree of self-belief and self-esteem. Persons who can foresee the future tend to transform themselves into entrepreneurs. Persons with a higher level of these factors can transfer their entrepreneurial intent into the behavior. The study supports fulfilling the knowledge gap by identifying the transformative factors related to entrepreneurial traits and will be helpful for the future researcher to dig out the availability of structure to enhance these traits among the workforce to make the country more favorable, adaptive, and transformative for entrepreneurship enhancement.

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Crisis as a Transformative Journey for Teachers' Professional Wellbeing

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Abstract

The COVID – 19 pandemics brought a sudden change everywhere whether it is at home or work. While talking about teaching, it is always filled with lots of contingencies that leads highest level of burnout and despair among the teachers. Whereas the pandemic brought yet other challenges in the workplace and also in teachers' life. Many studies have found stress on workplace where new mode of teaching has brought a negative impact on teachers' wellbeing. Researchers found most of the teachers used various strategies to cope with ad hoc situation. This paper is an attempt to understand how teachers applied coping strategies during online teaching crisis which really helped to enhance their better wellbeing. And also, the paper has explored how the crisis of pandemic brought a self -transformation in their teaching and learning process so that they could have better professional growth. This paper is mainly focused on the review of empirical research papers and elucidate the ideas that are found in various context to comprehend how crisis brought a professional transformation and improved teachers' wellbeing. This transformation of pedagogy brought a feeling of pride and happiness in the profession which helped to achieve better wellbeing in their personal life.

Keywords: Wellbeing. Challenge. Transformation. Teaching pedagogy

Introduction

The researchers have carried out many studies that are mainly focused on understanding the worth of teachers' wellbeing (Ryff, 2014; Alder,2016; Cann, 2019) in home and workplace because it is found if teachers' work is well acknowledged they perform better and their quality of work is deeply connected with students' success, satisfaction and achievement (Alder, 2016; Cann,2019). In other word, appreciation in workplace can higher the teachers' self-efficacy (Cann, 2019) whereas burnout in the workplace results negative impact on teachers' personal wellbeing too. So, it is well understood that teachers' wellbeing is deeply connected with their job satisfaction at the end (Cann, 2019) and significantly found that admiration of their work some way the other brings job satisfaction which could help to improve teacher wellbeing. Since, wellbeing is connected with better students' outcome explicitly or implicitly why it is being often ignored and neglected in the workplace then. This question always triggers me and I jolt down some of my personal experiences, and challenges as teacher I usually face some way the other and I also find the same issues in the findings of various paper these days. Yes, it is always found that teaching is with lot of contingencies, whether it is in the classroom or in workplace that really makes difference in teachers' personal wellbeing. Moreover, Covid -19 pandemic brought yet other challenges for the teachers so I simply thought to capture the experience of pedagogical crisis how teachers and their job suffered due to the pandemic. And I have also discussed how these challenges turned into the journey of career opportunity for the teachers as a transformation of teaching mode.

Pandemic as a School Closure and The Issues

During pandemic schools and universities were most severely affected areas (Gautam, 2020) and face-to- face education was replaced by online teaching. At the very beginning of the pandemic mostly the classes were disrupted and exams were on hold too (Kaper & Bhandari, 2020) which brought a sort of anxiety, frustration and job disappointment. Lack of computer literacy was one of the major hindrances to run digital class. Sense of failure, peers' judgement,

and digital burnout were also found as reasons creating teachers' stress (Pan & Liu, 2022). There were issues found like internet access (including its cost), lack of student participation rate, insufficient digital training, lack of preparation (Ferdous & Shifat, 2020) and these were mainly faced by the teachers during crisis. All these challenges brought Mental and physical issues and due to excessive use of digital device (Pan & Liu, 2022) brought zoom fatigue. One of the studies found, teachers faced the challenges like, students less motivated in online classes due to various external factors such as time constraints, learning environment, social isolation, poor internet network (Al Samiri, 2021). So, a sudden change of educational transition in teaching became a huge challenge for almost all teachers which brought implicitly a negative impact in teachers' self- efficacy, not just in teachers (MacInemey, 2018) but also with students' performance. And the study by Gordon (2020) revealed not only experienced teachers but also the early career teachers found teaching so overwhelming during the crisis and online mode of teaching from various learning domain. Despite all these difficulties many teachers found this period like an opportunity for their professional growth with the things in which they were not used to before.

A Journey of Transformation as Opportunity

The pandemic is not just a crisis but has demonstrated a transformation of learning since Mezirow (1996) emphasizes on transformative learning theory which helps learners to explore a pathway to identify the knowledge in a new and revised form of learning. Likewise, the crisis of pandemic turned into a career opportunity in various ways for teachers to understand different mode of teaching and the journey began with an understanding of their own self-efficacy through new knowledge and skills. It was very crucial for every teacher to acknowledge their self -capability (Soykan et al., 2019) for better career opportunity. Pan and Liu (2022) discussed on role of mindfulness in their profession which is important to higher teacher wellbeing. Positive mindset and their self -reflection of previous knowledge made them even stronger to achieve better learning because questioning and introspecting with self helps (Mezirow, 2003) to learn new thing which is obvious for betterment of their career (Kapar & Bhandari, 2020) and positive relationship both increase teachers' self-efficacy. Many studies explored that understanding of coping strategies during crisis and the result of their positive mindset with relentless effort helped to increase educators' better wellbeing (Awan, 2022; Pan & Liu, 2022; Kapar & Bhandari, 2020). The study also revealed emerging trend of digital pedagogy helped teachers to be professionally skilled with new teaching process. Optimistic mindset and high levels of teachers' self-efficacy resulted better wellbeing because many studies examined that positive feeling on their workplace (Babic et al. 2022) bring feelings of pride towards their job. Despite all these difficulties many teachers found this period as an opportunity for their professional growth (Gautam, 2020) with using different coping strategies. With the help of using coping strategies, they found many ways to support their students' learning. Introducing many online collaboratives training and CPD (continuous professional development) helped teachers to enhance their self-efficacy for teaching effectively in online class (Awan, 2022). Gautam (2020) states various emerging trend of digital pedagogy during crisis helped teacher even more talented in profession. Teacher training is always needed for their professional development. During the crisis of pandemic there was not any center for running trainings and all but some online platform and self- directed nature (Peel, 2020) helped teachers to come across with new skill with which they were not used to before.

Methodology

This article offers a review of empirical research papers as a method to write this paper which is mainly focused on how the crisis of pandemic also became an opportunity for teachers to enhance their professional development. This review paper further elucidates ideas that are found in various context to comprehend how crisis brought a professional transformation to enable teachers job a sustainable career skills and improved teachers' wellbeing. So, the paper

has also discussed the pandemic journey as a transformation of skills for the better wellbeing and professional growth.

Discussion and Conclusion

The study of the research papers has revealed the active participation of teachers even in the pandemic for online teaching training, assessment and evaluation remarkably brought feelings of pride for new lesson learned in many teachers. The transition of teaching from physical to online was an unprecedented but rigorous engagement and teachers' learning aptitude enhanced professional skills. In the Nepalese context, the teachers were only used to with taking physical exams and class tests for evaluation. Suddenly almost all teachers had to move to methods like "open book exams" through online tests which were difficult for them to evaluate without prior training and experience. Later, engaging with various online teachers training and conferences they found it extremely feasible to distinguish students' performance through online mode and resulted a better wellbeing of teachers. It is found that better wellbeing helped to reduce the job dissatisfaction and also lowered the anxiety. Ultimately, the things really brought a change in teachers' teaching and learning process which definitely increased a quality life. Seeing all these, teachers stopped feeling undervalued and less respected later they found their professional growth even in the crisis of pandemic. Teacher experienced new awakening knowledge which should be well anticipated and encourage them for this brilliant performance even in the crisis. Though the crisis of pandemic brought a huge challenge in the world of teaching but abruptly a transformation in teaching pedagogy from face- to- face to online class exhibited a new skill for teachers.

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Prospects and Challenges of Implementing Innovative Educational Ideas for Businesses in Nepal

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Abstract

This article explores the prospects and challenges of implementing innovative educational ideas for businesses in Nepal. For this purpose, I formulated a research question to set out the journey: how do students who have implemented their ideas into scholarly businesses narrate their experiences on prospects and challenges creating and existing in the market? This study adopted a qualitative standpoint within an interpretative paradigm. I used narrative inquiry as a method to gear up this study. I purposively selected four participants: two male and two female students who implemented their ideas into businesses to collect information because they addressed our expectations and purpose of researching prospects and challenges on implementing educational ideas as businesses. An in-depth interview was a tool to elicit information from the participants. From the experiences and stories of my participant, I understood that educational entrepreneurs in Nepal were found to have struggled to recognize the market pulses and rhythms. Financial management, marketing, operations, management, and critical risk analysis were found to have been prospects and challenges of their start-ups. They were found to have used the power of place and diversity through proper communication, collaboration, networking, and improving their products and services. Relatively low prices of their products and services were found to have been an existing strategy in the competitive market. The study concludes that Innovation in education is a key to opening the doors of possibilities. For this, educational entrepreneurs need the courage to implement their ideas in the market as businesses. There are many prospects and challenges to growing and sustaining start-ups. All these prospects and challenges are overcome through the power of place and diversity. The place shows the ways out for communication, collaboration, networking, and diversity exerts the innovation required to sustain in the marketplace.

Setting the Scene

Realizing the importance of innovation in education, the Department of Educational Leadership, School of Education, Kathmandu University designed and implemented a course on 'entrepreneurship in education to develop critical, creative skills, reflective practices, persuasive arguments, active listening, critical thinking and to implement entrepreneurial activities in academia to have hands on experiences. The focus of the course is to implement innovative educational ideas into the marketplace. In this context, thirty innovative ideas were pitched by M.Ed students. Out of which four ideas were awarded and selected for implementation in the educational market. The ideas were *Digital Saathi*, *Hygienic School Catering Service*, *Wings Training Academy* and *Daksha Art Cafe*, I, as a researcher, went to the field to explore prospects and challenges of implementing innovative educational ideas. This is how, I set out the journey of this study.

Background of the Study

Innovation in education is given due emphasis for the last two decades to address the demands of rapidly shifting and volatile globalized environment (Serdyukov, 2017). In this context, Findikoglu and Ilhan (2016) advocate that today's world needs individuals who can handle innovative, critical and creative thinking skills to solve problems. They further state that

innovation in education is crucial in transforming and reconstructing learning environments to address the needs and expectations of learners from the contemporary societies. At this backdrop, Fuad, Musa, and Yushof (2020) embark that the educational system needs to be designed to nurture innovative, creative, and critical thinkers which contribute through knowledge to societies. Here one question may be raised: Does innovation in education have something to do with place and diversity? To answer this question Solheim (2017) claims that diversity has the power to generate new ideas

She further states that place-specific interactions and communications between actors shape the ways for innovation in education. People in their local context interact to explore possibilities of implementing their innovative ideas to create businesses. From the discussion above, I understood that innovation in education connects with diversity and place.

Purpose of the Study

The purpose of this study is to explore the prospects and challenges of implementing educational ideas as businesses

Research Questions

How do students who have implemented their ideas into educational businesses narrate their experiences on prospects and challenges creating and existing in the market?

Delimitations of the Study

Prospects and challenges in this study are delimited to financial management, marketing, operations and management, and critical risk analysis,. Place and diversity are delimited to communication, collaboration, and networking

Methodology

This study adopted a qualitative standpoint within an interpretative paradigm. I used narrative inquiry as a method to gear up this study. I purposively selected four participants: two male and two female students who implemented their ideas into businesses to collect information because they addressed our expectations and purpose of researching prospects and challenges on implementing educational ideas as businesses. An in-depth interview was a tool to elicit information from the participants. I used four cycles to process the collected information. Firstly, information was transcribed into English and coded for the main ideas expressed in the narratives. Secondly, themes were generated based on coded information from the narratives of our four participants. Thirdly, information was analyzed and interpreted, merging signature literature and theory. Finally, meanings were made by being informed with literature and theory.

Unfolding the Pack

As I asked one of my participants how she felt implementing innovative educational idea pitched at university to the marketplace as a business, she opined that it was very difficult for her to identify location in the Kathmandu Valley. She had to pay a huge amount of money for a cozy room. Human resources required for the business were also difficult her to find. It became three months for her to understand supplier chain to understand. Regarding financial, management and marketing prospects and challenges she shared:

My parent agreed to support financially as they saw award of idea pitching from the Kathmandu university. However, the amount of money I received from them could not be sufficient to start up my business and then I went to my sister's house to ask for the financial help. She promised to support five lakhs from her side. As I made financial arrangement, I had to create a team to manage my business as well as legal provision. For this, I created a team of five members to work with and registered to Department of Cottage and Small Industries. I also had a challenge of advertising promotion. It is very expensive to get something advertised in the paper or electronic media.

Regarding how been interacting with place and diversity to exist in the educational markets she opined that she had been depending on network created by a company for that she had been

paying money. She shared that locus of control of communication and networking will be under her control after five to seven years.

Regarding the prospects and challenges of implementing innovative ideas into businesses, my participant, who started a business Digital Sasthi in Education, shared his story:

I thought I would easily implement my idea in the educational market to support people in the educational network, but it could not happen. I had money to invest but did not have ideas for operation, management, and marketing. The world of business is different than education. There are many nexuses to making a business happen. If we do not knock on their doors, we can not do anything because they understand the pulse of the business. For this, we need to pay more than others to channel their network, collaboration, and coordination. My purpose was to support our country's schools through software and technology hardware. I wanted them to support and improve their teaching-learning, human resource management of the school, accounting, examinations, students' record keeping through our locally customized software. I also had a plan to support them in maintaining their technological devices if they were not functioning well. For this purpose, I used the network of ABC company. They searched for customers for us, and we went to their place to support them. I also observed prospects and challenges competitors in the market. There are many companies created for the same purpose. We can be visible in the market through cost subsidies or quality. I adopted both accpaorches. Now, my business is at the stage of the break-even point.

My another participant who started **Hygienic School Catering Service in Kathmandu** shared: *First, I searched for an open space that could be sufficient to start my business. For this reason, my local became a bit far from the city. I also analyzed the risks of competitors and decreased prices on food delivery. I deployed ten young people to deliver food to different schools. Now, I realize that my business is in the market because of the low price. The low price is the survival strategy in the markets of the Kathmandu valley. Staff management has also been a challenge for me because sometimes, two to three people suddenly inform me that they will not be able to come to work for the day. For this, we need support from other networks which have already been established. I have now collaborated with three similar companies to solve these issues. I am hopeful that this business will fulfill my dream of existing in the educational market of the Kathmandu valley*

My another participant who started **Wings Training Academy** shared that she has been successful in the market through her business. Now, she has a connection and collaboration with more than 50 fifty schools in the Kathmandu valley, and she plans to reach out of the valley this year. Regarding prospects and challenges of business start-ups, she shared: *The first and foremost challenge that I faced was marketing. Many principals and teachers of private schools are reluctant to take training from our side. They expect their mother organizations to organize training, calling experts from universities and abroad. I, as a trainer, made my space convincing them that my training would be beneficial to improve pedagogy and students' assessment. I provided more than 200 free training sessions to fifty Kathmandu Valley schools to create my market.*

Other challenges She faced were human resource arrangement and financial management. She reported:

I don't have all expertise to solve the market need. I need to find people from private and public organizations. Recently the demands of training of schools have been subject-specific, software, and innovative training. For this, we do not have the human capital to address their needs. Likewise, experts from outside are costly and difficult to find.

Key Insights of the Study

From the experiences and stories of my participant, I understood that educational entrepreneurs in Nepal were found to have struggled to recognize the market pulses and rhythms. Financial management, marketing, operations, management, and critical risk analysis were found to have

been prospects and challenges of their start-ups. They were found to have used the power of place and diversity through proper communication, collaboration, networking, and improving their products and services. Relatively low prices of their products and services were found to have been an existing strategy in the competitive market.

Conclusion

Innovation in education is a key to opening the doors of possibilities. For this, educational entrepreneurs need the courage to implement their ideas in the market as businesses. There are many prospects and challenges to growing and sustaining start-ups. All these prospects and challenges are overcome through the power of place and diversity. The place shows the ways out for communication, collaboration, networking, and diversity exerts the innovation required to sustain in the marketplace.

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Gamified System: An Innovative Approaches of Learning

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Abstract

Gamification is the act of applying game concepts, ideas, and mechanics to non-game contexts to increase user engagement. Students that encounter gamification typically have an immersive learning experience that shifts traditional educational concepts to motivation-based learning standards. Transformative education motivates learners to think out of the box and empowers them to follow different approaches of learning. This approach can be adopted in online learning system since varieties of contents can be uploaded in the system. Therefore, gamification can be adopted as a transformational educational method to achieve the goal of game-based learning effectively and widely through the use of immersive learning. One of the approaches of identifying and designing different gamification elements is by using the learner's motivation which helps to develop gamified learning system. This study uses Octalysis Gamification Framework (OGF) to evaluate the gamification elements deployed in moodle based on learners' motivation. To identify learner's motivation, short self-regulatory questionnaire is used. The findings suggest that the gamification approach provides additional benefits as compare to the traditional educational methods. This research is beneficial to different stakeholders such as instructors, students and organizations using online learning systems.

Keywords: Gamification, Octalysis Gamification Framework, game-based learning, self-regulatory theory

Background

Education is undertaking a paradigm shift with principles borrowed from the industry and the field of gamification,. Through digital tools and technology, these changes are creating new learning experience by boosting motivation and fostering transformative experiences. Gamification is one of the techniques of transforming the learning experience and motivating learners. It is the process of bringing game mechanics, elements, and ideas to non-game environments to improve user engagement (Fogg, 2002). According to study, using educational games, gamification, social networking, and social gamification has a significant influence on learning performance (De-Marcos, Garcia-Lopez & Garcia-Cabot, 2015). Gamification achieves this by integrating game design elements into the application or services to motivate users to engage, usually by making it more 'fun' to use (Deterding, 2011). Game design elements are a set of building blocks of the games and are the artefacts employed in different systems and services to offer gameful experiences (Deterding, 2011). In context of educational platforms, the most basic types of gamification elements include levels, points, rewards, leaderboards, progress bars, virtual currencies, countdown, personalization, storylines and micro interactions. One of the ways to design and evaluate these gamification elements is through Octalysis Gamification Framework.

The Octalysis Gamification Framework is a human-centric gamification design framework that helps understand how to build and create motivation within a specific setting and turn activities into meaningful and rewarding experiences (Chou & Chou, 2019). Figure 1 shows the Octalysis framework which outlines eight primary motivators for the users. This framework provides the foundation for examining the motivational factors influencing human

behavior. A user is motivated to finish a task effectively through an engaging platform through the process of applying the fundamental behavioral drives. The Octalysis framework is implemented to improve user engagement, return on investment, and motivation in healthcare, fitness, education, corporate, and product design. Therefore, this framework is used in this research to evaluate the Kathmandu University MOOC (KU-MOOC) system, which is a gamified learning system. KU-MOOC is one of the learning platforms within Kathmandu University, which was developed in 2016 as one of the first Massive Open Online Course platforms in Higher Education.

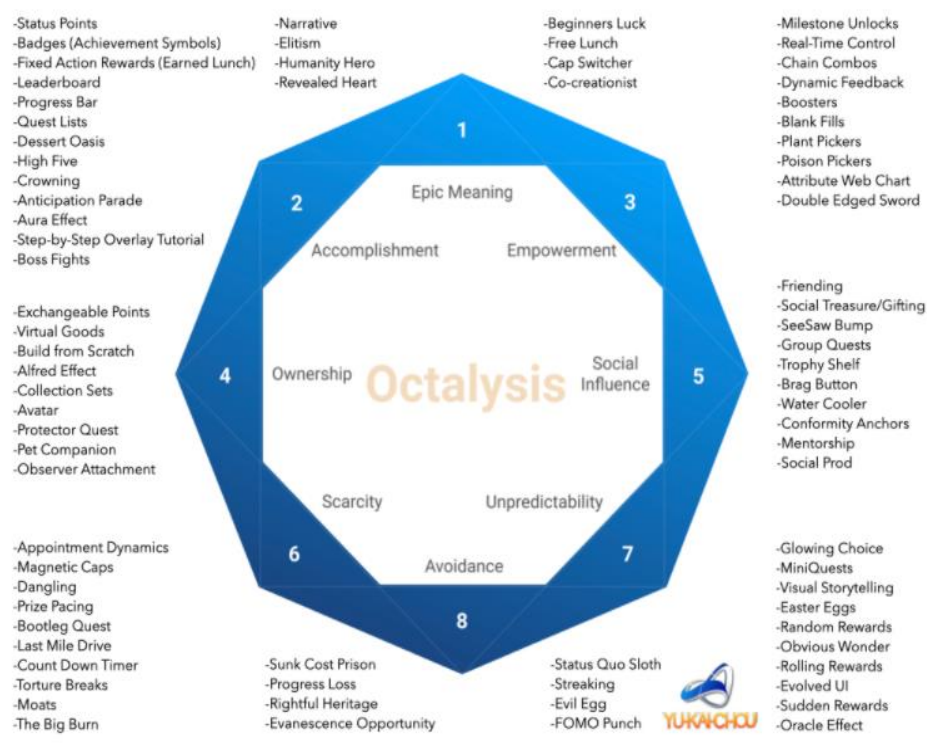


Fig 1: Octalysis framework for gamification and behavioral science

Problem / Purpose

The game and the dynamics that arise from the game seem to satisfy the physiological need of learners in the gamified system. However, there is a lack of research using gamification and SDT in the educational context. In current scenarios, most of the research is focused upon the subjective evaluation of the student's motivation. The data for the evaluation in those types of research are collected using a survey to answer open-ended questions, ranking an experience based on feelings. There has been very less focus on research to evaluate the engagement and motivation towards the student e-learning system by doing an objective assessment. Hence, this research focuses on evaluating motivation of student using objective assessment and gamification elements using Octalysis framework in the gamified learning system.

Literature Review

Sillaots et al. (2016) conducted a quasi-literature review to find the central game elements and listed 103 game elements used in various games and mentioned in additional research reports. Among 103 recognized game elements, the most frequently mentioned game elements were: *interaction, goals, levels, and reward*. Similarly, literature review conducted by Muangsrinoon and Boonbrahm (2019) identified the game elements applied to research in the healthcare context. Authors retrieved a total of fifteen terms of game elements from twenty-two selected papers that were screened from a total of eighty-two documents. They found that only a few game elements are used in gamification research in the health context. Some popular game elements are points, levels, leaderboards, badges, avatars, etc. Furthermore, Zainuddin et al.

(2020) examined 46 articles from various educational journals. Out of these 46 articles related to gamification study in education, 29 explicitly mentioned their theoretical foundations, while others had no theoretical content. Most studies have focused mainly on Self-determination theory (SDT), flow theory, and goal-setting theory but agree that researchers should explore other theories.

There is different research done to determine the potential relationships between gamification elements and need satisfaction related to SDT. Shi and Cristea (2016) proposed a motivational gamification strategy to measure the three innate psychological needs dependent on SDT. The proposed strategies were utilized to understand the motivational benefits while actualizing gamification in an adaptive e-learning framework. Sailer et al. (2017) conducted a randomized controlled study that utilized an online simulated condition to analyze the impacts of individual game design elements on psychological needs satisfaction. Similarly, an exploratory study to determine the basic motivational factors that oversee which game elements are motivational to the specific groups of 184 students is presented in Chapman and Rich (2017). In this research, many motivational gamification affordances satisfying psychological needs are identified, designed, and integrated into the gamified LMS system.

Methods

Study Design

The Short Self-Regulatory Questionnaire is used in this study to determine the learner's motivation. This questionnaire consists of 31 survey questions with a Likert scale from 1 to 5 to determine the learner's motivation. Short Self-Regulatory Questionnaire (SSRQ) is the condensed version of the Self-Regulation Questionnaire (SRQ) with the same effect and reliability, created in 1999 by Brown et al (1999). The SRQ was created primarily to investigate addictive behaviors, however, the self-regulatory mechanisms it outlines are intended to be universal guidelines for behavioral self-control and is applicable in the learning systems as well.

Study Population and Sample

The targeted study population comprised of undergraduate students from Department of Computer Science and Engineering at the Kathmandu University. The respondents were students studying at first, second, third and fourth year of their undergraduate course. A total of 184 respondents were included in the final survey analysis.

Sampling Technique

Non-Probability, voluntary response sampling technique was used to gather the data. Students in university come from diverse background and to generalize the findings to entire population, this sampling method was chosen. The online survey was circulated within the department, and students voluntarily filled the responses, which helped in identifying their behavioral motivation too.

Data Collection and Analysis

The survey was administered online using Google forms, which was circulated within the department. Google Suite platforms (*Google Studio, Google Sheet*) were used to analyze the data received from the participants. While exploring the data, 31 questions from SSRQ were divided into seven modules: Receiving, Planning, Implementation, Searching, Assessing, Evaluating, and Triggering, and in the end mean of each module and responses from all the participants were calculated. In addition, Grounded Theory and Narrative Analysis are used for the qualitative analysis. The analysis results match the two-factor solution of the Self-Regulatory Questionnaire, Impulse Control, and Goal Setting (Neal & Carey, 2005).

Ethical considerations

All the participants were informed about the purpose of the study. Anonymity was maintained and no identity was revealed.

Evaluation of the Gamified System using Octalysis Framework

The Octalysis framework can be utilized to identify all the game mechanics that are used to appeal to each Core Drive within the framework. Based on how strong these game mechanics are, each side of the octagon will expand or retract. If a side crosses the inside Octagon, then that side is extremely weak, and the system needs to be improved on that area. Furthermore, this framework can also give *Octalysis Score*, based on analysis in each core drive within the framework. This score can be used to identify what Core Drive is lacking.

Results

This section includes the results of the data that was collected from the online questionnaire and analysis of the gamified learning system of Kathmandu University.

Participants Demographics

Table 1 shows the socio-demographic information of the respondents. Most of the respondent were from Province 3 (55.4%) and least respondent were from Province 7 (3.8%). Out of the 184 respondents, 53.26% were male and 46.74% were female. All the respondents were between the age of 16 and 24.

Table 1: Socio-demographic information of the respondents

Socio-demographic variables (N=184)	Frequency	Percentage	
Age Group	16 – 24	184	100 %
Sex	Male	98	53.26 %
	Female	86	46.74 %
Geographical Location	Province 1	11	6 %
	Province 2	16	8.7 %
	Province 3	102	55.4 %
	Province 4	18	9.8 %
	Province 5	20	10.9
	Province 6	10	5.4
	Province 7	7	3.8
Total		184	100

Mean Calculation of SSRQ

Table 2: Mean calculation table for SSRQ 7 modules

Short-Self Regulatory Questionnaire	Mean
Receiving	2.975543478
Planning	2.922360248
Implementation	3.065217391
Searching	2.987771739
Assessing	3.047826087
Evaluating	3.20923913
Triggering	3.038043478

Table 2 shows the mean calculation table for seven modules of SSRQ questionnaire. Based on the responses, the average indication for each module of behavioral change is calculated. According the SSRQ, *Evaluating module* has the highest mean of 3.209, while *Planning module* has the lowest mean of 2.922.

Table 3: Standard Deviation calculation table for SSRQ 7 modules

Short-Self Regulatory Questionnaire	S.D
Receiving	0.115991554
Planning	0.08180592279
Implementation	0.06139139665
Searching	0.03878038904
Assessing	0.1643696069
Evaluating	0.06533051829
Triggering	-

Table 3 shows the standard deviation calculation table for seven modules of SSRQ questionnaire. According to the SSRQ, *Assessing module* has the highest standard deviation of 0.164, while *Searching module* has the lowest standard deviation of 0.038. The data calculated was executed with a 95% confidence level and a margin of error of 7.22%.

Analysis Gamified system of KU-MOOC

The analysis of gamified learning system, KU-MOOC, demonstrates the use of five different gamification elements in the system as listed below:

- Experience Points:** Users are assigned points based on their course progress and activity.
- Rewards/Milestones:** Users are rewarded based on their experience points upgraded to the following levels, and unlocking features are included.
- Leaderboards:** Users are aware of their state based on experience points ranking and can compare with other students based on their levels [Level 1-10]
- Progress Bars:** Users can see their progress to know their current situations and plan their further progress accordingly. The module on the system will be unlocked when the user keeps on progressing by actively participating in the course.
- Countdown and Schedules:** The plugin in the system automatically estimates the ending period of the course, due to which learners know how to pace their learning and can prepare their learning road map accordingly. Furthermore, there is a schedule for every module, which will only unlock after completing all the activities of the previous module.

These five elements used in the Kathmandu University MOOC system strongly possess the features that let learners be in the loop within the system.

Octalysis score of KU-MOOC

Table 4 shows the Octalysis score of KU-MOOC system. The total Octalysis score of KU MOOC platform is 350 points. 3 out of 5 gamification elements is focused on Core Drive 2, *Development and Accomplishment*. Therefore, this component has the highest score of 9. The *Unpredictability and Curiosity* has the lowest score of 5 among the component.

Table 4: Octalysis score of KU-MOOC

	Octalysis Core Drive	Octalysis Scale	Octalysis Score
1	Epic Meaning and Calling	7	49
2	Development and Accomplishment	9	81
3	Empowerment and Creativity	7	49
4	Ownership and Possession	7	49
5	Social Influence and Relatedness	6	36
6	Scarcity and Impatience	6	36

7	Unpredictability and Curiosity	5	25
8	Loss and Avoidance	6	25
Total Score			350

Discussion and Conclusion

Gamification can effectively assist an e-learning system if it is implemented properly. Therefore, this research focuses on identifying learners' motivations and how these motivations can be analyzed to evaluate a gamified system. The Octalysis framework and SSRQ are used for evaluating the KU-MOOC system of Kathmandu University. The Octalysis framework offers many mechanics for investigating learning models that can produce and improve core drives more effectively. Each core drive has supplied recommendations and guidance that are publicly accessible on the official website. Several mechanics are chosen and studied following the system's demands, which promotes the optimization of learners' primary motivations for e-learning. The analysis of the KU-MOOC system shows the strong focus of the system in *Core 2: Development and Accomplishment*, with 3 out of 5 elements based on this Core Drive. However, the scores in other Core Drive indicate that the system can be still improved. According to The Octalysis Framework, *Core Drive 4: Ownership and Possession*, and *Core Drive 6: Scarcity and Impression*, are represented by personalization of the gaming element and will create more ownership of the system. With different complex tasks and reactions based on quizzes and modules, users will relate to emotions and responses to the interface, which will ultimately help to create a strong impression among them. Furthermore, the data from SSRQ indicates that the primary factor affecting a learner's behavior is goal setting at the initial stage and lack of intrinsic motivation. Therefore, the system should focus on these areas to improve learners' motivation.

Gamification provides patterns and novelty in design of active learning experiences. This research analyzes the motivation of learners in gamified system more deeply using the Octalysis scale. The average results are in the range of 6.5 from the scale range 1 to 10. Therefore, on the one hand, this actual condition has the potential to be developed, but more innovative development is needed to generate student core drives so that it will increase motivation to learn. Since the Octalysis framework provided evaluation guidelines, our study objective of evaluating students' motivation using objective assessment and gamification elements is addressed by this framework. The gamification approach discussed in this study provides additional benefits than the traditional educational methods through a game-based learning environment, and by motivating students to actively participate in the course. This helps in reducing the number of dropouts in the course, making it more effective. The selection of suitable gamified elements is a challenge in online learning system since the context of the course and type of students in the course should match with selected gamified elements. This type of research is beneficial to different stakeholders such as educators, students, and researchers. The concept presented in this research is very useful in the current scenario where we are moving towards digital education, especially after covid-19. This study can be further expanded by integrating additional gamified elements in the system and analyzing their impact on the motivation of the student in the course. The study in this research has experimented the system with university students. However, this can be further explored with the primary and secondary level students to identify if the similar gamification elements are suitable for these students.

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Breaking, Making and Sustaining the Tradition: Autoethnography as/for Border Pedagogy for STEAM Education

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Abstract

The paper begins with a discussion on possible roles of imagination in philosophic and autoethnographic inquiries into culturally decontextualised STEM education practices of a diverse South Asian country which hosts more than 90 languages and diverse rural cultural traditions. The role of imagination has often been demonised in the positivistic research tradition via the primacy of propositional (cut-and-dry, objective, decontextualised), deductive (*a priori*, imposed, logos-centric) and analytical (dualistic, linear, reductionist) logics and genres. In this paper, we shall also discuss the possibility of thinning the borders of Eastern Wisdom Traditions (that has more elements of mythopoetic traditions) with Western Modern Worldview (that has more elements of the logos-centric view of the world) as a source of conceiving and applying imagination as an epistemic technique in researching the researchers' experience of culturally decontextualised STEM education. Taking imagination as a necessary quality to be a human, we shall demonstrate how it can be used to represent otherwise neglected, excluded and ignored voices of STEM practitioners that can contribute towards realising a just, equitable and inclusive educational processes. Subscribing to a Rortian view of philosophy as a means for cultivating human imagination, we shall articulate a methodological referent of 'small p' philosophical inquiry (cf. Philosophical inquiry that privileges Philosophies over practices) in terms of its usefulness to employ researcher's personal-professional experiences for envisioning an inclusive space for STEM education (which we have considered the space as STEAM education). More so, this paper elaborates possible uses of poetic, dialectical and metaphorical research logics and genres for developing the research design that employs analysis as envisioning an inclusive STEM education that promotes the crossings of multiple borders. The idea of poetic logics and genres challenge the positivistic notion of linear (cf. non-linear), clean (cf. messy) and cut-and-dry (cf. warm) research texts whereas dialectical logics are useful to challenge the narrowly conceived notion of analysis as pulling things apart in favour of research as holistic envisioning. In the context of a pervasive role of metaphor in elaborating the conceptual domain of ideas, we shall also discuss how different epistemic metaphors (research as advocacy, questioning the status quo, voice giving) contribute towards liberating the research enterprise from a disempowering view of researching STEM education as reproducing the dominant Western Modern Worldview.

Keywords: imagination, philosophical inquiry, autoethnography, logics, envisioning, quality standards

De/contextualized STEM Education

We, four co-authors, educated in Nepal in school education, have been experienced that school level mathematics and science are decontextualized in nature. We have observed that the knowledge system and its delivery mechanism in mathematics and science education are disengaged and disempowering, focusing on transferring official knowledge as the ultimate truth. The overemphasis on rote learning and ready-made problem-solving strategies has been established as the core pedagogical approach. Elsewhere, Luitel (2009, 2019), Pant, (2015, 2019) and Shrestha (2018, 2019) have argued that the decontextualized nature of school

mathematics and science created a deep-rooted problem in viewing the contents and pedagogical practices thereby producing the uncritical human resources who can not raise questions towards unjust practices in education.

Recalling our school days, we could hardly feel that mathematics as a queen for other subjects as argued by McGinn (2015). Our images of mathematics and science was as *difficult subjects* which are different from other subjects. The rooted beliefs towards difficult subjects were developed due to the culture of teaching in school education. We were taught ‘procedural knowing’ in mathematics rather than ‘conceptual knowing’ (Rittle-Johnson & Schneider, 2015) which could not cultivate our creative and critical reasoning. In the procedural ways of knowing, the emphasis is given to the pre-determined steps and algorithm where the students are encouraged the steps to be followed while solving the routine problems. Such approaches kill the creativity of the students, and thus turns classroom into disengaged learning environment. But, the conceptual knowing promotes relational understanding (Skemp, 1976) where students are encouraged to explore the relations of mathematical and scientific concepts with the real-world activities, and other disciplines.

Later, when we become teacher educator, we reflected the school level science and mathematics. We realized that several students have experienced it as foreign subjects (Luitel, 2009) due to its nature of decontextualised. Wagle, Luitel and Krogh (2019) argued that the Euro-centric westernized global educational agenda eventually became counter-productive in many developing countries from Africa and Asia. Due to the common beliefs that science, mathematics, and technology as a global product, such disciplines become more detached with the cultural practices, and finally served the agenda of neoliberalism (Taylor, 2019). Over the time, we realised that the conventional STEM education was/is perceived as a form of the unquestionable western product thereby taking it as a form of postcolonial weapon. Moreover, STEM education seems to be providing researchers with knowledge reproduction by limiting them to researching into inquiry (Science), skills (Technology), designing (Engineering) and computation (Mathematics) through positivistic research traditions, thereby subordinating and/or neglecting creativity and imagination (Arts). In this regard, we have realised that imagination as an essential quality to be a human represents otherwise neglected, excluded and ignored voices of STEM practitioners that can contribute to realising a just, equitable and inclusive educational processes through an Arts integrated STEM education, giving rise to transformative STEAM education.

The pertinent roles of imagination in philosophic and autoethnographic inquiries into culturally decontextualized STEM education practices of a diverse South Asian country Nepal which hosts more than 90 languages and diverse rural cultural traditions. Instead of thinning and cross-cutting the border between positivistic and non-positivistic research traditions, the majority of researchers in Nepal have been highly found promoting positivistic research traditions via the primacy of propositional (cut-and-dry, objective, decontextualised), deductive (*a priori*, imposed, logos-centric) and analytical (dualistic, linear, reductionist) logics and genres. In response to such traditions, we have proposed thinning the border between Eastern Wisdom Traditions (that have more elements of mythopoetic traditions) and Western Modern Worldview (that has deductive and conventional logos-centric view of the world) as a source of conceiving and applying imagination as an epistemic technique in researching the researchers’ experience of culturally decontextualised STEM education.

Breaking the tradition of serving the postcolonial agenda through research

In the name of scientific research, the positivist approach of research seems to be as mainstream research. Over the time, it created a hegemony in social science with a focus that there is a single way of knowing, and establishing the singular truth and objective reality is the central aim of research studies. Transformative STEAM education researchers practise within multiparadigmatic research design that embraces the paradigms of interpretivism, criticalism

and postmodernism informed by multiple realities (*ontology* driven by relativist) and subjective knowledge (*epistemology*: knower and subject create understanding) (Denzin, & Lincoln, 2005).

We subscribed to the multiparadigm research design space (Taylor, Taylor, & Luitel, 2012) to capture the lived and living narratives of practitioners in the field of education. The paradigm of interpretivism help researchers understand phenomena (“making sense of the world”) by looking through other’s eyes, abandoning the attempt to explain behavior through measurements or general rules based on a cause-effect scheme (Di Martino, & Zan, 2015). This paradigm is concerned primarily with generating context-based understanding of people’s thoughts, beliefs, values and associated social actions and the interpretive researchers are guided by constructivist epistemology to unfold their subjectivities in shaping the process of the inquiry and hence generate a context-based understanding of people’s thoughts, beliefs, values and associated social actions (Taylor, Settelmaier & Luitel, 2009; Taylor, & Medina, 2011). The paradigm of criticalism helped researchers raise their critical consciousness (Brookfield, 2000) and enable them to practice ‘deep democracy’ (Kincheloe & McLaren, 2000) which involves identifying and transforming socially unjust social structures, policies, beliefs and practices (Taylor, & Medina, 2011).

The paradigm of postmodernism opens many new and exciting doors for educational researchers as it brings to our attention the very important concept of ‘representation’ (Denzin & Lincoln, 2005). Moreover, it is hard to know what goes into one’s mind and hearts which are not directly accessible to the world outside us. Therefore, the paradigm of postmodernism helps researchers ‘represent’ their thoughts and feelings through various means of communication such as language, art, dance, gesture, etc. (Taylor, Settelmaier & Luitel, 2009; Taylor, & Medina, 2011).

Use of different genres and logic in research traditions

We believe that conventional (positivistic/scientific) research has a limitation of ways of expression in educational research. Moreover, the conventional researcher views the world as static, universal and structured, research participants as sources of objective knowledge and knowledge as rigid and incorrigible and ways of representations as framed and structured by third-person writing and expressions. In response to these conventional research assumptions and practices, we propose multiple research logics and genres such as poetic, dialectical, and metaphorical to challenge the structural assumptions and deep-rooted practices for developing the research design that employs analysis as envisioning an inclusive STEM education to promote the crossings of multiple borders working within transformative STEAM education. The idea of poetic logics and genres challenges the positivistic notion of linear (cf. non-linear), clean (cf. messy) and cut-and-dry (cf. warm) research texts whereas dialectical logics are useful to challenge the narrowly conceived notion of analysis as pulling things apart in favour of research as holistic envisioning. In the context of a pervasive role of metaphor in elaborating the conceptual domain of ideas, different epistemic metaphors (research as advocacy, questioning the status quo, voice giving) contribute towards liberating the research enterprise from a disempowering view of researching STEM education as reproducing the dominant Western Modern Worldview.

Autoethnography as/for border pedagogy

Out of several research genres and traditions, autoethnography can be an empowering research methodology and genre within transformative STEAM education. Autoethnography is an approach to research and writing that seeks to describe and systematically analyse personal experience to understand cultural experience (Ellis, Adams, & Bochner, 2011). Moreover, autoethnography as a research methodology and genre in Transformative STEAM education help researchers explore and express their positions as researchers in the research space by

challenging their personal biases to make sense of a wider audience and having a greater impact on them.

Subscribing to the border pedagogy ideated by Henry Giroux (1991, 1997), autoethnography as/for border pedagogy within Transformative STEAM education offers the opportunity for researchers to engage critically the multiple references that constitute different cultural codes, experiences, and languages to help them construct their own narratives and histories, and revise democracy through sociocultural negotiation across the academic research world. To critically engage here is not only limited to revealing that knowledge and power are related in terms of dominance by one research tradition over the other (e.g., the so-called dominance of positivistic research tradition over the non-positivistic research tradition). Rather, autoethnography as/for “border pedagogy preserves the notion of textual power – texts and textuality in terms of reading, interpretation, and criticism” (Sholes, 1985, as cited in Giroux, 1997, p. 148). Thus, autoethnographers informed by border pedagogy incorporates the intersection of identity, belonging, language, culture, context, space, and place of his/her multiple “own-selves” and multiple “other-selves” through pertinent engaging and evocating lived and living narratives to envision a critical creative educational society. In this regard, autoethnography as/for border pedagogy creates a space in which a researcher explores the knowledge and power used in teaching and learning experiences through the critical, creativity, imaginative narratives of his/her multiple “own-selves/teacher-selves” in relation to the multiple “other-selves/students-selves” with whom he/she has been interacting for long.

Within an arts-based autoethnographic as border pedagogy, we employed *ethnodrama* as a specific genre of dramatic literary writing to set a theatrical stage on which both researcher and participants perform together. An ethnodrama- a term joining ethnography and drama - is a written play script consisting of a dramatized selection of narratives collected from various resources, such as personal memories/experiences and journals (Saldana, 2011). For example, Shrestha (2011, 2019) represented his personal experiences in the form of a stage show designed to invite readers to become involved in his evocative stories to examine critically the issues such as: How can Nepali mathematics be contextualised through inclusiveness and ethnomathematics? How can a culturally contextualised mathematics education enable meaningful learning of mathematics?

Conclusions

Using both Western Modern Worldview and Eastern Wisdom Traditions as epistemic techniques, researchers investigated the experience of culturally decontextualised STEM education at Kathmandu University. The study represents the use of imagination, a human quality, as a means of representing otherwise neglected, excluded, and ignored voices of STEM practitioners that can contribute to a more just, equitable, and inclusive educational system. The 'small p' philosophy of inquiry within autoethnography as research methodology created rich spaces that welcomed multiple ways of knowing in terms of leveraging researcher's own personal-professional experiences for envisioning an inclusive STEM education space. Utilizing multiple genres (such as poetic, dialectical, and metaphorical) promotes a STEM education that fosters cross-border collaboration.

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Training Design Affecting Participants' Learning in Vocational Institutions

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Abstract

The purpose of this study is to explore the influences of training design on the learning transfer of participants of the vocational institution and the links of environmental factors with the training design. This research is a case study of Sajilo Sewa Pvt. Ltd. and the participants' selection are its employees who are responsible to transfer learning in their work. Qualitative data has been generated by talking with the respondent and documenting their experiences through focus group discussions. These data were coded, categorized, and four themes were generated. The findings explored that training design, delivery and implementation, instrumentality, and work environment help to improve participants learning in vocational training. Also, the results showed a direct linkage between work environment and training design to transfer learnings at work. Keeping all these components in the training design will help to improve participants learning in vocational training. The research findings will support trainers, participants, instructional designers, and vocational institutions to improve participants' learning.

Keywords: Training design, Training delivery, Instrumentality, Work Environment, Training Transfer

Introduction

Being a tool for sustainable development, education has different spheres of development that includes various socio-economic aspects. Besides this, it reflects on the values which can lead to action. But the major difficulty in today's world is to search for a way of living and working in a sustainable way (Bagale, 2015). Effective professional development has been a top priority for educators, academics, and policymakers in recent years due to pressure to raise accountability and improve the quality of teaching and learning (Antoniou & Kyriakides, 2013).

An institution's purpose and vision set out its goals, which must be accomplished. One of the crucial factors that determine the accomplishment of both short-term and long-term goals is employee performance. The achievement of both short-term and long-term goals will benefit proportionately from the improvement in staff performance. These goals are accomplished by continuously investing in staff development. Institutions are aware of the value of learning and growth in raising performance. Employees are introduced to and given training at all levels in order to increase their skills and competencies.

Understanding the training's objectives is crucial, whether it be technical or behavioral. The main goal of the training is to improve participant understanding so that they can use what they have learned when they return to their jobs. This is possible if the training can be devised and tailored with the participants' needs in mind. This is also true of the vocational institution. The work that the vocational institution does is dynamic and challenging. It changes in response to shifts in the market environment and advancements in technology. Various training is provided so that they can cater to their clients and deliver quality services that ultimately attain the objectives of the institution.

Although the idea of vocational education was always there in Nepal, it only officially took shape after the Council for Technical Education and Vocational Training (CTEVT) was established (Bagale, 2015). Technical and vocational education is characterized as teaching practical employment skills, particularly in the industrial sectors of agriculture, business, family

and consumer sciences, health occupations, marketing, technology, and trade (Asian Development Bank [ADB], 2004). Contrarily, vocational training is meant to help members of disadvantaged groups, such as rural poor people and women, gain practical skills so they may engage in income-generating activities (council for technical education and vocational training [CTEVT], 2011) (Garbuja & Pasa, 2016). Technical education is one of the cross-cutting issues worldwide. Technical Education and Vocational Training (TEVT) comprises formal, non – formal and informal learning for the world of work, and the emphasis of the curriculum on the acquisition of employable skills will help for the fulfillment of the demand for skilled workers in the job market (Bagale, 2015).

It is crucial for participants to advance their training and acquire new skills through educational programs and lessons. A training action is one that imparts specific knowledge to audiences. Through training, a group of people can broaden their intellectual horizons and improve their skill sets as opposed to becoming complacent. When it comes to training design, a route plan is what builds an instructional ladder. Only with well stated objectives can the training be designed. Effective training occurs when participants understand the lesson they were truly learning from the session (Velada, Caetano, et al., 2007).

The phases where training sessions will take place are established in the training design. This may occur physically in the classroom or via any online platform. The trainer must be very clear about several things, including their worldview and frame of mind. Trainers need to think about the training design from the audience's perspective before any training sessions. Various types of components are employed in four phases after going over the viewpoint. Prior to taking any action to accomplish the intended goals, the learning objectives must first be created. Then those stages must be ordered in a systematic manner, which is eventually given through presentations, projects, or lecture videos (Bhatti & Kaur, 2010).

Trainers should consider if the training pays attention to the participants while doing it. Participants should bring their knowledge, abilities, and learning-oriented ideals for this. The variety of participants in the session makes it possible to include their various cognitive processes, abilities, and learning attitudes. These training programs might break the exclusive pattern based on perceived membership in a particular group that can limit access to resources following a session.

A brief summary of the many inclusion-focused design strategies that have been created recently for system design encourages everyone to enjoy themselves in every part of life while concentrating on the need to incorporate human variety (Di Bucchianico, 2017). Actionable refers to how much of the instruction is practical in nature. Participants occasionally feel well up to the training session. However, following the workshop, they were unable to connect with how those learning modules might be used in realistic situations. The appropriate training should thus evaluate the participant needs that are directly related to realistic action that participants may do after the training. This idea aids in the extraction of knowledge that may be used in the creation and delivery of training. A training's success may be measured clearly by identifying the information and skills that participants will acquire via careful creation of learning objectives.

The idea of learning by experience is the best one there is. Effective learning happens when it is connected to personal reflection. This will improve the capacity for skill usage that is appropriate. Interactive sessions are achievable when the trainees actively participate in the course material. Additionally, this style of contact promotes active learning. Experiential learning takes the form of active learning. However, it goes beyond the notions of learning by doing since it incorporates formal training elements that aid in the learning process. Therefore, rather than just listening to the participants, training should be designed for active learning so that the participants acquire information and skills with a learning mindset.

Trainers should assess the entire circumstance before beginning any training session. The best technique to comprehend the purpose of the instruction started from the existing scenario may be to create surveys. Many future decisions will undoubtedly be influenced by questionnaires. Common queries include: Why is this training necessary? What advantages could viewers derive from this instruction? What modifications will this training require? Will participating in training genuinely change how you behave in real life? "How can we make certain adjustments and attain company goals through training?" should be the driving force behind training.

Trainers will evaluate how well requirements performed and compare it to the abilities, skills, and knowledge of continuing pupils (Allen, 2006). The analysis phase serves as the cornerstone for all later stages of instructional design. At this stage, the investigator defines the issue, ascertains its root cause, and develops workable solutions. At this stage, certain research approaches including need analysis, goal analysis, and task analysis may be applied. This stage often produces a list of instructional objectives and activities to be taught. These findings will serve as inputs for the design phase (Muruganatham, 2015).

After the analytical process is complete and the questions have been resolved, the designer starts to create the training content's layout so that recorded form iterations may be made (Ghani and Daud, 2018). This makes it simpler to explain to participants the value of training. The information will not really be covered in full by the documented form, but it will be covered in broad strokes. Include a quiz or other evaluation for the participants to complete. A solution is developed in the design phase in accordance with the design model using the problem specification that was established during the analysis phase.

This phase often involves the creation and evaluation of several solutions, which results in the selection of a promising design or blueprint for the solution (Welty, 2007). The creation and selection of a design rationale in the formulation of learning goals, the specification of content, the choice of an instructional strategy, the choice of media, and the formulation of test items are all decisions that designers are expected to make while designing a blueprint and further developing the product. Later on, in the development phase, the plan is improved to become a real product (Molenda, 2015).

The development stage is to create the courses where trainers will prototype and guide trainer elements, of course, should be developed to match the design. This phase generates the lesson plans and lesson materials (Muruganatham, 2015). Since the core content has already been managed, all we need to do is to rub up the course systems by graphics, color combination, and font size and styles. Basic grammatical errors, spelling mistakes, and syntax errors should be checked to make sure they won't happen during the session (Molenda, 2015). A careful selection of elements will appeal to the participants. Sometimes, participants will not be able to understand the content built up. This happened when the designer missed straightforward things due to the lack of pre-testing. Testing the course is not flicking through it – it's just proofreading the content and navigation utility that result in tangible output (Mayfield, 2011).

After completing the course design and development, it is time to implement it with real participants. What decisions are made during the course design will affect how it turns out. Being a realization of the previous phase, most courses are uploaded to a learning management system and delivery options are set up - who is enrolled, how much time they are given, pass marks for assessments, and feedback collection (Mayfield, 2011). If there are any teething problems, the instructional designer should monitor the situation. Piloting a course before releasing the content to the entire group is one of the best ways to eliminate problems in the implementation phase (Molenda, 2015).

ADDIE's main goal is to provide a structured method of creating training programs. Evaluation will be done side by side with the implementation phase for improving future iterations (Ghani and Daud, 2018). Having feedback on course aspects is really important to

revise and edit if any kinds of mistakes were present. The created product is assessed in a separate step in the traditional ADDIE model. The goal of the evaluation is to see how well the product in development meets the quality standards established early on in the project. Designers may opt to continue developing, implementing, or disseminating the product based on the assessment data, or adjust and enhance it if it does not currently match stated goals and requirements (Baral et al., 2019).

To generate a product that fits the standards, several cycles may be required. The assessment phase is generally depicted as happening towards or at the conclusion of the design process since it is designated as a distinct phase in the process (Allen, 2006). There are a few things that we need to focus on while having a session - Did our plan and execution work perfectly; Take feedback and place it back into the analysis phase; Take Program Review from the Organizing Committee; Possible change in media types. Taking feedback from the audience is the perfect way to evaluate the session; Feedback can be taken either through a face-to-face communication or through any kind of form which includes survey questions (Allen, 2006).

Learner characteristics are used to specify a target group of learners and to delineate those aspects of their personal, academic, social, or cognitive self that may influence how and what they learn. Learning materials can be designed and developed to be more efficient, effective, and/or motivated by taking the characteristics of learners into consideration (Drachler and Kirschner, 2011). Applied linguistics has traditionally examined the characteristics of learners within the context of individual differences (IDs), which are perceived as characteristics that identify a person as distinctive and unique. ID research has traditionally concentrated only on the character traits that are enduring, that are assumed to apply to everyone, and on which people differ by degree (Tobias, 1987).

Learning opportunities provided by educational institutions are necessary for adult learning and education. Time is an essential component. To realize adult learning and education participation, one needs to match individual time-availabilities with the timing of the courses offered. This study contributes to the research literature as one of the first investigations of the impact of timing and course duration on participation counts (Rüter and Martin, 2021). Postsecondary educators have used peer-led learning extensively in academic and extracurricular settings. Peer-led learning consists of student leaders who facilitate learning within a group (Eberlein et al., 2008). The time duration for the learning session was 4-6 hours which was conducted with the physical presence of trainers.

During participating learning, the role of instructional materials is to connect the information to the learner's mind as visuals are more powerful than sound. Fulfilling rich learning environments helps for faster recruitment of skills for sustained learning and quick development. Establishing group learning to improve learners' participation is its main objective. The study reviewed the literature on the effectiveness of instructional materials on participation in science classrooms. This study was guided by experiential learning theory (Wambui, 2013). Teaching materials include whiteboards, charts, laptops, projectors, and flashcards with rulers and real objects. Among these, a projector was found to be a significant tool for learning. Classroom use of instructional materials is influenced significantly by a teacher's training, his or her class level, the subject they teach, as well as the age or maturity of their students (Opoku-Asare, 2004).

There are a number of components of training design that enhance participants' learning. There will be an increase in the skill gap among the employees if they are not able to upgrade themselves and provide services to their clients. Learner's characteristics, training design, trainer's competency, training duration, supervisor support, work environment, relapse prevention, and overlearning are some of the components that help to enhance participants' learning. The vocational institution can improve the learning transfer process if they consider these factors prior to providing training.

While researching this topic, only a handful of research work was found in this research topic. This research aims to explore the influences of training design on the learning transfer of participants of the vocational institution and the links of environmental factors with the training design (Neupane, 2008). The researcher has aimed to address the following research questions - How does the training design affect the learning of the participants of vocational training? And how is the work environment linked with training design in the learning transfer process? (Partnership, 2019)

The researcher has tried to identify and understand the components of training design that link with environmental factors. The components identified in the research will be helpful for vocational institutions to take into consideration while conducting behavioral and technical training. The improvement in participants learning in training will directly enhance employee performance which will finally help to attain the short and long-term objectives of the institutions in the long run.

Method

A descriptive qualitative method was used to conduct the research study. The purposive sampling method was used as a sampling process. Qualitative data has been generated for the research by directly talking with the respondent and documenting their experiences through focus group discussions. The participants for this research are the employees of vocational institutions who have been working in the technical field and who have made attempts to apply the learnings of the training back in their job.

The site of the study was Sajilo Sewa which has been providing vocational training to support employees' tasks of providing maintenance solutions. The vocational institution is a highly demanding sector that is dependent on customer service. The researchers have chosen Sajilo Sewa as a research site as it has been providing more than 100 services and is one of the leading companies to provide one-stop maintenance solutions. The researchers during their preliminary study found there are a handful of such companies and they are no longer in existence due to not being able to fulfill client expectations. The researchers choose Sajilo Sewa as a research site as they have been providing vocational training to its employees on a regular basis and has been in operation for 5 years. The findings of the study would be beneficial in identifying components of participants' learning in the vocational institution.

Participants for the research study have been selected on a voluntary basis. The data were collected using 3 focus group discussions and each focus group had 6 participants. The participants were informed about the context of the research and questions were emailed prior to the discussion. A non-disclosure email was sent to the prospective participants. The responses of the participants were recorded through audio recording and note-taking. After conducting 3 focus groups, the data was saturated.

The researchers opted for credibility, transferability, and dependability in the research. The researchers validated the data by asking probing questions. The data were confirmed by rephrasing the sentence and notes were taken of it. The researcher has tried their best to link the research purpose and asked questions to the respondents keeping in mind of the research questions. The researchers have used focus group discussion as a tool for data collection. These results were generated through data coding, categorization and, theme generation and, linking with various literature reviews.

The data in this research study have been transcribed and translated line-by-line by listening to the recorded audio and notes that were taken during the focus group discussion. These recordings and documents were re-listened multiple times so that main the points won't be missed. These data were coded using in vivo coding method extracting the exact words said by the participants during focus group discussion. These codes were kept in a separate sheet and then repeated codes were reduced and then codes were connected together depending on their

similar and differences into 11 categories. These categories were analyzed and then 3 connecting themes were identified based upon the literature review and researcher knowledge

Research Findings

Training Design

One of the elements that contributes to the improvement of the learning transfer process is training design. One of the participants recommended creating training materials that included subjects that might be used at work immediately after training. Another participant noted taking into account comments from potential participants regarding the training's subject matter and the difficulties they had at work as a result of the skill gap. One of the greatest methods to accomplish training objectives and ensure the application of the lessons learned at the workplace is to design the training material while taking the needs of the workplace into consideration.

Training Implementation and Delivery

One of the participants mentioned how he still remembers the points discussed in the training as it is practiced in his work on a daily basis. The other stressed tracking training progress at different intervals to understand if training has brought impact or not. One participant mentioned how she tends to be busy at work and that she forgets half of the things during training implementation. The use of experiential methods in training helps to improve the participants learning. Incorporation of transfer strategies understanding learner's characteristics helps in retention of course content.

Instrumentality

One participant mentioned how they are willing to take part in the training that helps to improve their tasks at work. Another explained they will be motivated if they get certain rewards after training. One of them also mentioned one incident when they became competitive and worked wholeheartedly when they came to know they will be receiving a reward for it. Intrinsic and extrinsic rewards need to be opted out depending upon learners' characteristics. Some might be interested in monetary rewards whereas others might be interested in professional growth. Using intrinsic and extrinsic rewards makes the participants motivated and they will be willing to put their effort into applying the learnings.

Work Environment

The training participants' enhanced learning directly relates to the quantity of opportunity provided. One of the participants stated that while she is eager to put the things she has learned to use at work, the atmosphere and the people make it challenging to apply what she has learned. The other person remarked how their team members are stiff and at ease using outdated techniques. It is hard to implement lessons learned at work if the peer and supervisor are not supportive. Participants' ability to retain new information is also impacted by peer resistance to changing their behavior.

Discussion

The research study has identified four major themes – training design, training implementation and delivery, instrumentality, and work environment affecting participants' learning in the vocational institution. The research findings explore the components of training design affecting the participants' learning in vocational training. It also sheds light on understanding the linkage between the work environments with training design in the learning transfer process.

Training design serves as an action plan to understand the purpose of the training in a vocational institution. A carefully designed training assessing the need of the participants helps to mitigate the skill discrepancy that is required at work. Learning materials can be designed and developed to be more efficient, effective, and/or motivated by taking the characteristics of

learners into consideration (Drachsler and Kirschner, 2011). The methodology opted in the training and how it is linked with their daily work plays a pivotal role in training effectiveness.

Noe, Hollenbeck, Gerhart, and Wright (2006) and Kirkpatrick (1976) proposed that in order to perform better, participants must learn and retain the training content and transfer it to their work. If the participants do not retain what they have learned, they would not be able to practice it. Even though the training has been conducted through carefully designed content, if the participants do not utilize cognitive ability then it will eventually result in a relapse of training. Rather than incorporating a lecture-based method, the design and delivery of training should be done through participative learning which helps to improve participants learning. The extent to which participants have applied the skills learned in training also enhances their learning.

Instrumentality comprise of intrinsic and extrinsic rewards that support to improve participants' learning. Both intrinsic and extrinsic rewards have a positive influence on transfer motivation (Tharenour, 2001). The results show a strong positive relationship between instrumentality and participants' learning. Intrinsic rewards can bring more innovation and effectiveness to an employee's performance (OsmanGani & Jacobs, 2005). Instrumentality has a positive effect on the learning of the participants in a vocational institution. A carefully designed training, along with a plan for intrinsic and extrinsic rewards after implementation of training concepts will aid in enhancing participants' learning.

Opportunity to use is just that – the availability of opportunities to perform or practice trained skills back on the job (Ford, Quiñones, Sego, & Sorra, 1992). Peer and supervisor support will foster learning transfer because they create an environment that is conducive to learning transfer. These environmental factors should be positively related to transfer. These elements play a crucial role in the continued use of trained skills. If a trainee enters a transfer environment that does not support the use of trained skills, he or she will be less likely to use those skills and maintain them (Goldstein, 1986; Rouiller & Goldstein, 1993).

Conclusion

The research explored that training design, implementation and delivery, instrumentality, and work environment affect participants' learning in vocational training. The findings of this research explored that institutions should provide an opportunity for participants to apply their learnings. Training should be designed through need assessment and content should be developed in such a way that it can be applied right after the training. The ability of the participants to retain course content, and use trained skills with their cognitive ability to use learned content will help in the transfer of learning. Peer and supervisor support is crucial before, during, and after training as this will motivate participants to improve their performance. The research also explored intrinsic and extrinsic rewards that will motivate participants to apply learnings. Keeping all these components in training design will help to improve participants learning in vocational training.

Limitations and Further Research Study

The research study was conducted using focus group discussion as the only method to collect sample data. Other data collection techniques could also be used to improve the richness of the research findings. Due to time constraints, the research was conducted on a limited sample population among the employees of Sajilo Sewa. The findings of the research study may not be applicable to other similar vocational institutions in Nepal. The themes and findings generated are on the basis of the literature review and the experiences that the researcher generated during the research study. Potential biases might occur in the preparation, data collection, analysis, and results generation. There is a need to conduct further research to improve the richness of the research findings. For this, the researcher will be incorporating additional vocational institutions offering similar services as a research participant in the future.

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Literacy Skills Development of the Preschool Children

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Abstract

Early language and literacy skills are basic requirements for ensuring children's achievements during their formal schooling. Oral language is the foundation of learning and literacy skills. Effective support from families and teachers is important for the development of these skills. It is observed that children are not developing these skills and with the limited vocabulary they are struggling on reading fluency. I undertook a qualitative study to explore the children's literacy skills in the preschools in Banke. In this paper, I discuss the current teaching learning practices. Even though there are variations in support systems, the practices are inadequate for young children to develop their literacy skills. The paper explores that children having opportunities to discuss and play in their own language settings were more confident, expressive and vocal and this was carried over to the school setting. Therefore, use of print materials and increase of interaction and conversation from family members are important for the literacy development of the children.

Key Words: Oral Language, Literacy Skills, Social-cultural context, Learning

Introduction

Literacy is a social practice as it emerges in the process of social interactions. Many positive changes have been witnessed in the perceptions and the participation of the people regarding early learning and literacy in the last 15-16 years in Nepal. Learning to read is a developmental process because reading skills are improved through every day experiences and interactions in the environment. Reading and writing skills require oral language proficiency (Shiel et al, 2012). Without developing their foundation on oral language and vocabulary children cannot follow the pattern of literacy were confirmed.

Most children follow a similar pattern and sequence of reading behaviors as they learn how to read: from appreciation for and awareness of print, to phonological and phonemic awareness to phonics and word recognition (Brown, 2014). There were two contrasting environments at home and preschools in the context of early literacy and oral language learning in the children. But I found that over the course of time these two environments are interrelated and complementary to each other. According to Vygotsky (1986), children learn from the spontaneous or everyday activities within human culture and experiences outside of academic settings (van Veer & Valsiner, 1991; van der Veer, 1994; Gelman, 2009). However, a discipline framework of the schools, rote learning approach and pressure of homework and helplessness are the limitations in learning language (Sinhaneti & Kyaw, 2012).

I believe that the home environment is the key for preparation of literacy readiness and is dependent on parents' literacy skills. The literacy and school readiness comes autonomously and affects other social and cognitive practices (Street, 2003). However, literacy varies from one context to another and from one culture to another, and is affected by the broader cultural backgrounds of the teachers and the children (Hull & Moje, 2012). Thus, the effects of learning the literacy skills is dependent on those particular contexts where children are growing up. And learning occurs through active participation in social community, which leads to educational experiences as opposed to "...non-educative and mis-educative experience" (Dewey 1987, p.51). It is about gaining knowledge and the ways in which children address reading, writing and vocabularies.

Oral language is the foundation of learning to read and write (Roskos et al., 2009). The extensive use of oral language enables children to learn literacy along with many other areas (Munro, 2009). It includes listening, speaking, reading and writing (Kirkland & Patterson, 2005). If a child has a strong grasp of language skills, they are able to question, converse, investigate and initiate the meaning making in class and outside. Children learn new words (vocabulary) every day from listening to others and observing and interacting with the print symbols or signs. They can be words, alphabets or pictures. Initially, children develop the concept of print. Thus, concept includes recognizing and understanding the symbols and is the primary stage of reading. Bandura & Walters (1977) states, modeling is one of the best tools to learn. Teachers and parents, by providing children with opportunities to experience sign and symbols, modeling it in everyday conversations and making them print awareness, help them to understand how written language is connected to oral language. While developing print awareness, young children will begin to understand that each word is separate, and that words are separated by a space within each sentence (SEDL, 2008). So reading required a combination of mastery, integration and application of the knowledge of the word, vocabulary and the skills. This knowledge is interdependent of one another as children are learning to read. Without the knowledge of a word and its meaning no child can read fluently. And I observed that many children have similar problems in preschools. This paper discusses the role of parents and the teachers for the literacy development of the children and explores the available environments which can support at their home and school setting.

Role of Parents in the Literacy Development of their Children

Home is the first institution of learning and parents play a vital role in developing the literacy skills of children. A large variety of sounds and words are used at home. Similarly, varieties of print materials are available at home. This provides children opportunities for language and literacy skills development.

I found that reading storybooks to children is not the only way that parents can support to increase their children's literacy skills. Moreover, children need more didactic activities, such as singing rhymes (poems), listening to stories, playing games outside as well as inside at home (for example, word games or find a thing, I spy game) together with children, and teaching children the alphabet or letter sounds can impact children's early decoding ability (Evans & Shaw, 2008). Parents who have limited time to play with their children are deprived of learning opportunities.

Activities in the home during the preschool years' scaffold children's early learning skills and develop their oral language. These early activities were supporting them for developing foundation of the literacy skills and reading comprehension. This natural nurturing process develops their conceptual understanding towards learning and motivates children to read independently in the later years. Children having exposure to a literacy rich environment and literacy related materials at home and preschool will have a high level of oral language development (Sim, 2012). Children can name the food as per its label, recognize the values of money, and can purchase things they require. In this regard, they have good understanding of the print and can succeed in primary schools.

Parents' engagement with children in extra-textual talk during everyday household chores contributes towards children's understanding of words and their contextual uses. However, I observed that limited interactions between parents and the children occurs in the families. Though children get little time with parents, there are plenty of opportunities to interact with friends and other community members. This contributed to supporting the children's oral language. Quality parent-child interaction is one of the best ways to support children's language skills (Reinnie, 2006). Shared reading (storybooks) among parents and siblings, and also with other children's siblings, boosted their language and literacy skills.

Storybook reading in the home does not only foster children's vocabulary, but also other domains of oral language.

Teacher's Role in Oral Language and Literacy Skills Development

Teachers can support children in practicing word learning skills. They can develop strategies for independent word learning with different instructional activities. Teachers often demonstrated word pronunciation and accent to the children/students in the classroom. While reciting alphabets or the picture names (words) teacher has to be very careful on phonemic awareness of the children. Phonemic awareness and visual awareness are the basic language skills which develop simultaneously.

Nepali school system still follows some of the traditional (ancient) teaching learning practices. They mostly focus on the recitations of the words. It is believed that, learning can only be done by recitation and repetition. Therefore, I notice that the teachers in the Nepali preschools emphasized on recitation of letters and words. Teachers took the lead in class and children were listening to them mostly instead of creating activity based teaching learning approaches. Also, sometimes one of the children stood in front and shouted the alphabet-words (a for apple, b for ball....) or the picture-words, and other children followed him/her. It is also the process of "cognitive modeling" in which teacher instructs the children for the activities but instead of letting them experiment, teachers herself or himself performs the task (Schunk, 2012)

As I have discussed, the activities followed by the teachers was dependent on the teacher's sociocultural background. According to Vygotsky (1978), "culture teaches children both what to think and how to think". Therefore, the teacher cultural background influenced the teaching learning approaches. From Bourdieu's standpoint, each agent is equipped with a habitus (shaped in formative years of home culture) that bears affinity to a larger referential group/class habitus (Lizardo, 2009; Strong, 2018). The teaching learning approaches were dominated with the teachers' social construction rather than children's basic need to develop oral language and literacy skills. However, the children's oral language development is not carried out in a vacuum; the activities carried out by the teachers are the result of the social construct. They have their own social origins and habitus. Teachers used some of the basic oral language skills, phonemic awareness, vocabulary, and comprehension without any prior preparation. Teacher's limited awareness on how to develop these abilities in children make them slow in learning oral language skills.

Conclusion

Child's language is the reflection of their home cultures. Children who speak a different mother language at home lag behind in oral communications in the second language. However, it is believed that fluency and literacy in the mother tongue lay a cognitive and linguistic foundation for learning additional languages (Pandey, 2012). I have seen that children who can express and participate in their language in schools have confidence in their learning. These children gradually learn a second language and can easily transition to formal academic learning in the primary schools.

All children can develop a strong foundation for literacy and reading skills when they are given opportunities to engage in purposeful and meaningful language and early print activities. Reading is a process that builds upon a wide range of developing skills and is an ongoing process. I recommend print rich environment and everyday engagement on reading activities to support children through reading development at their own pace. Reading skills is a social practice as it emerges in the process of social interactions. It is always embedded in socially constructed epistemological principles (Street, 2003). It is about knowledge: the ways in which people address it and the process of developing the ability to understand it within the socio-cultural context. The child's potential doesn't develop in isolation, but rather in interaction with the surrounding world. Children incorporate the words they frequently use in their surroundings and construct as a part of their knowledge. Children

participated from different socio-cultural backgrounds, with a wide range of language experiences needs additional support at home and preschools to develop their vocabulary. Teachers' role is important to facilitate these children to develop their oral language, vocabulary, and literacy skills. Children learn by listening, speaking, reading and writing at (pre) schools. I recommend teachers need to provide such opportunities to children so that they can develop the skills. These are the foundation skills for learning. These foundation skills are directly related with home culture, language background and teacher's role.

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Auto-ethnography-A Journey of Self-realization and Reconciliation

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Abstract

I have long been engaged with auto-ethnography during my doctoral research. Auto-ethnography, an intriguing and promising qualitative research method, emerged from postmodern philosophy (Wall, 2008) assisted me in making a conscious effort to reflect, learn and expand my horizons. My growth during my research has been multi-dimensional. I have not just grown in my professional competencies, but it also helped me to evolve in my personal beliefs, gain emotional maturity and reconcile cultural practices. Since auto-ethnography is one of the approaches that acknowledges and accommodates emotionality (Ellis, Adams & Bochner, 2011), it allowed me to be emotionally vulnerable with seemingly 'brutal' honesty and proved to be a medium of therapeutic catharsis. That helped me to heal from previously unidentified pain and set me free from possible intergenerational agony. As a migrant to Australia, because of my auto-ethnographic research, I haven't just learned a new set of values, I have also learned how to reconcile them with my older set of values, paving my way to cultural integration and embracing fluid identity. This paper sums up how my 8-years long auto-ethnographic research helped me to reflect upon my experiences and helped me in my journey of self-realization and reconciliation both at personal and cultural level.

Keywords: Auto-ethnography, growth, self-realization, reconciliation

Introduction

I recently completed my auto-ethnographic doctoral study to explore how to better integrate teachers from non-English speaking background (NESB) in the Australian education system (Afzal, 2021). I was a NESB high school science teacher when I migrated to Australia from Pakistan in early 2006 and experienced many barriers to resuming and continuing teaching in the new country. My doctoral study is largely based on my personal experiences and due to my parental responsibilities and work commitments, it took me almost eight years to complete.

My research helped me to grow in my professional practices and hopefully will continue to help others in same situation as me which was an intended objective of the study. However, I also accomplished something what I did not set out to achieve or anticipated at the beginning of this journey; self-realization and reconciliation.

Since it was self-study, it gave me the opportunity and skills to write down and unpack my own emotions in greater details and to analyse them. Extensive reading coupled with creative writing enabled me to achieve personal growth faster.

Continuous feedback of my respected supervisor on my work also helped me to better understand and analyse my reactions in different situations. So, this research has served the invaluable purpose of enhanced self-realisation. Maksimenko and Serdiuk (2016) described self-realisation as personal readiness to self-development, manifestation of inclinations and capabilities, which may lead to balanced and harmonious development of different aspects of a person, with application of adequate efforts to expand personal potential. Through my study I gradually grew out of the personal struggles and reached a stage of reconciliation at both personal and cultural levels.

As a migrant I have gone through a massive personal and cultural change that presented many challenges. My auto-ethnographic research helped me to observe, accelerate and document that change and assisted me to re-negotiate and reconstruct my personal and cultural identity while living with varying cultural and social values, norms and behaviours (Çınar,

2019). This paper describes with examples how I came to self-realization and reconciliation as an added but important outcome of my auto-ethnographic research.

Methodology

As mentioned above, during the course of my doctoral study, I engaged with auto-ethnography using qualitative research methods. For this paper, I have used narratives and personal reflections. Researchers acknowledge that narratives are a legitimate source of data in ethnographic approach (Bell, 2002). Stories, conversations and vignettes were my way of unfolding and finding meaning for my lived experiences (Cohen, Manion, & Morrison, 2000). I preferred narrative writing as it has many advantages over other forms of data collection since it carries the idea of a story that is evolving, and compounding past experiences of a person (Gadamer, 1976). I reflected upon my past and present experiences in two culturally different countries to reconcile my values as a person and as a professional. In doing so, I put forward my true thoughts with full honesty to create new knowledge through this process, rather than simply restating what others have said (Werder, 2016). During the process of writing personal reflections, I maintained ‘progressive subjectivity’ by monitoring my developing constructions and documenting the process of change from the beginning of the study until the end (Mertens, 2005). I present my evolution in self-realization and journey of reconciliation in auto-ethnographic and first-person voice.

Auto-ethnography Leading to Self-realisation and Reconciliation

Even though auto-ethnography is considered amongst the most challenging qualitative research methodologies to attempt, it can also positively affect the writer’s state of mind. In my experience, it helped me to analyse my emotions (Buckley, 2015) in greater details, increased my self-awareness leading to balanced life approaches and even healing from unidentified emotional pain. Here I explain my evolution with examples.

Understanding My Reactions

I know that I am assertive and strong-willed, and these qualities helped me to achieve an independent life in Pakistan despite being a ‘lesser gender’ in a society where gender disparity is significantly higher. However, because of these very same qualities, sometimes the magnitude of my reactions can also be intense. What I did not know was why the magnitude of my reactions was mostly high in situations where actual or perceived oppression or unfairness was occurring. The reason unfolded for me during this study when my kind supervisor wrote to me after reading a chapter in which I described the complex contexts of Pakistani culture. I understood from his feedback that, at times, my heightened reaction and resistance to unfairness was a result of my cultural background. Since self-realisation is the process of actualisation and implementation of individuality of a person, his/her internal positive and creative pursuit of development, psychological maturity and competence (Maksimenko & Serdiuk, 2016), this complex process to observe my own reactions, self-image, capabilities and meanings through this study assisted me to subsequently learned to implement my capabilities, values and existential meanings in a more balanced way.

Adopting A Balanced Approach To Feminism

I have discussed my rising feminism throughout my thesis which mostly occurred as a result of my migration to a more individualistic society, and which appealed me hugely as a woman raised in the collectivist society of Pakistan with world’s highest gender disparity rate. What is more interesting is the fact that my study not only helped me to adopt the ideology of feminism but also to reach a ‘balanced approach to feminism’, rather than blindly falling for every perceived injustice to women. The auto-ethnographic approach I learnt during this research has enabled me to be ‘brutally honest’, not just to others but to my own self as a female member of society.

Healing The Older Wounds

While editing my thesis before submission I noted that I have passionately written many accounts about my mother who passed away during the course of my doctoral study. In fact, those are the accounts that are most important, most authentic and most emotional to me. When I tried to uncover this phenomenon, something interesting but scary came out. I realised that probably, to some extent, I am experiencing something similar to intergenerational trauma. I have written in detail in my thesis about Pakistani culture, its gender disparity, how women are treated, how they are scrutinised by the wider society, and how they have little influence in the decision-making process. In short, that is the summary of my mother's life and my grandmother's and perhaps my great grandmother's as well. I watched my mother living a life of oppression and I have heard stories of many other women around and before her. Even though my own life is significantly different than previous generations of women because of the level of my education, financial independence, societal evolution and migration to a new society, still I feel the pain of injustice and oppression to a relatively greater extent (as mentioned above).

Towards the end of my study, I started to realise that recollecting my mother's memories in my writing was surely a therapeutic way to grieve over her passing, but it was also a way to express the pain she (and the women before her) went through. My auto-ethnographic study has helped me to connect the dots between what I am feeling and what happened to my mother and grandmother/s. Cohen (2018) has recommended writing and storytelling as a way to heal from intergenerational trauma. McMillan and Ramirez (2016) have also argued that auto-ethnographic research can be therapeutic and can be used to identify and deconstruct oppressive practices embedded in the evidence-based medical approach to trauma. Once I came to understand that I was able to make peace with that pain and set myself free.

Embracing Fluid Identity

We are meant to grow as humans with age and with more experience in life, no matter where we live. Growth and evolution is a natural process. However, this growth can be multi-fold when we move across countries and cultures. The process of migration and adaptability as a result can accelerate the speed of change. Some people feel able to keep up with this speed while some collapse. It is important to have a tight grip on the reins when we are going through this extraordinary speed of change. As a migrant, I experienced that very strongly. I raced, I stumbled, I fell. Then I got up and raced again. I am still doing it all. It has become part of my daily rituals.

While writing my auto-ethnography, I discovered and understood the concept of fluid identity and its importance for cultural integration. I have come to the point where I have lived through two entirely different cultures. At this point in life, they are both part of my identity and I accept this wholeheartedly without denying either of them. Each one carries some merits and some demerits. My study has given me the courage and flexibility to move between the two without feeling embarrassed of either of them. This has led the way to gaining inner peace and bringing me closer to the people of both cultures.

Personal Reconciliation

Reconciliation is about healing an older wound, and the dictionary defines 'reconciliation' as a situation in which two people, or groups of people, become friendly again after they have argued (Korff, 2020).

However, for me personally it is about improving relationships not just with others but with our own selves. It is the end of an estrangement from the culture and values I was raised in and which, in the process of migration, I got separated from. It is the action of making a set of my own views or beliefs compatible with another.

My study has helped me to understand reconciliation with my own self, my self-image and perception. I have let myself enter into new and productive relationships with my two sets of

values (one learnt in Pakistan and the other acquired in Australia) which has made me more confident and has set me (to a greater extent) free rather than living in constant dilemmas.

Cultural Reconciliation

The process of migration is about finding a better future. During this process, migrants go through different cultural expectations which may affect the process of reconciliation of two cultures.

I learned through this study that, while finding a better future, we do not necessarily have to lose our past. Lee and Tse (1994) emphasised that when immigrants come into contact with another culture, they will likely find some behaviours common across both cultures and some that are unique and different. This study taught me a valuable lesson: to benefit from the common behaviours and to find a middle ground amongst the conflicting attitudes of two cultures. But not just for myself. I feel that this learning will also benefit my next generation (my children) since they are also at the merging point of two cultural fronts (Kruzykowski, 2007). They are/will not only develop a connection to the traditional Pakistani culture in terms of identification with their ethnic group, parental expectations, contact with family and country, and knowledge of native tongue (Kruzykowski, 2007), but they will also take advantage from equality of gender roles, more independence and better understanding of Australian culture.

Conclusion

Buckley (2015) describes, in auto-ethnography the researcher is at the centre of the investigation as a 'subject' and an 'object. So being a 'subject' and 'object' I immensely benefited from, my 8-year long auto-ethnographic doctoral study. It helped me to grow not just in my professional practices, it also set me on a journey of self-realization and reconciliation both at personal and cultural level. I started to understand my reactions better, adopted balanced approaches to life, helped in healing from unidentified emotional wounds, embraced fluid identity and enabled me to better reconcile my personal and cultural values.

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My Transformative Journey from a Despotic Teacher to a Healer Educator/Leader: An Auto/ethnography

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Abstract

This paper represents my journey from a despotic teacher to healer educator/leader and is characterized by perseverance, self-realization, and transformation with the aim of being, becoming/inspiring change agent in the development of education practices of Nepal. Using auto ethnography, I have critically reflected on my 17 years of experience in the education sector, from a raw teacher to an educational leader, and from a STEAM scholar to transformative practitioner through the lens of transformative learning theory. These experiences unfolded some bitter truth on how I imitated my teacher and continued to be a traditional teacher who believed in one size fits all ideology, ignored the interest of the learners, promoted rote memorization and misused the power of being a teacher by applying threatening pedagogy through means of corporal punishment for almost seven years. During my master's studies in STEAM education, critical reflection made me realize the wrong practice and I started reforming the pedagogical practices in my school and adapted innovative pedagogies to create a meaningful learning environment. In the process, I realized that every child has the potential to learn but not necessarily at the same pace, they should be given equal opportunities to participate in the learning process and empowered to create their own understanding on the topic discussed through self-experience.

Keywords: Critical Self-reflection, Transformative, Teacher, Auto ethnography

Introduction

This paper represents my evolving experiences of being in the Nepali education sector for the past 17 years as a learner, teacher, administrator, and school leader characterized by perseverance, self-realization, and transformation with the aim of being, becoming/inspiring change agent in the development of education practices of Nepal. It also incorporates how I got into the teaching profession, struggles to get into the right shoes and the passion that made me fall in love with the profession. I started this journey as an option, groomed my skills through different educational programs, evolved throughout the time, envisioned to bring positive change in our curriculum and pedagogical practices, and believed that every child has the ability to succeed and build an inclusive environment in the school.

Private schools in Nepal have developed their own procedure of appointing teachers. Nepal government has given full authority to recruit teachers in their process (Shrestha, 2008). Likewise, private schools also practiced hiring teachers from India to attract parents as they are good in English in comparison to local teachers (Phyak, 2016). I had the privilege of having an Indian degree with higher grades and a very fluent English but was in an ethical dilemma if I could be a good teacher without having experience and knowledge about the culture, context, geography, history etc. though these were my own originally. Slowly, as time passed, I became familiar with my culture, traditions, beliefs and values which ultimately strengthened my pedagogical practices as learning became easier while taught in one's native languages (Phyak, 2016).

I was also in an ethical dilemma why it is not compulsory to do Professional Teacher Training or Bachelors in Education or Masters in Education to be a teacher though according to Shrestha (2008), "The concept of teacher development was institutionalized in 1971 when the

government adopted the policy that all teachers must receive 10-month training” (p. 41). But it did not remain consistent. Why? If a person has to go through rigorous training and studies to be a doctor, they can treat their patient like many other professions needing training. So, why isn't it compulsory for teachers to get the training to be hired in the teaching profession?

Problem Statement

The problem statement of my study is that teaching in Nepal is taken as an option rather than profession and so one do not take any trainings to become a teacher nor is it compulsory in many of the private schools, they only look for good English speaking skills to be a teacher. The unskilled teachers are reluctant to take professional development training to enhance their teaching skills rather follow the footprints of their teacher and adapt traditional way of teaching learning where the teacher dominates the class through lecture method and learners remain a passive listener, the teacher also uses a threatening pedagogy by the use of corporal punishment to make the learners behave as per their expectations due to which learners are discouraged to be creative and compelled to develop a habit of rote memorizing.

Purpose of the Study

The purpose of my study is to critically reflect on my journey from being a traditional teacher to becoming a transformative educator and leader.

The guiding research question is “How has my journey as a teacher evolved throughout time?” and “What helped me transform my practices?”

Transformative Learning Theory as a Theoretical Referent

I often ask myself *‘Why am I into the educational field?’ ‘Why do I need to change?’ ‘Have I been able to address the needs of the learners as an educator?’ ‘How can I improve my school's curriculum and pedagogies so learners can be engaged meaningfully and inclusively?’ ‘What is the purpose of education if it is not linked to real life?’* These reflective questions guided me to apply transformative learning theory as a framework to seek the answers for these questions.

Transformative learning theory promotes “education that nurtures critically reflective thought, creative problem posing, and discourse is learner-centered, participatory, and interactive, and it involves group deliberation and group problem solving” (Mezirow, 1997). I am also portraying my journey evolved throughout the time, the consciousness that supported my transformation as an educator and leader. I have become more critical about my own beliefs, values, and practices as a human, educator, and leader. Also, transformative learning develops the activity and awareness in learners, shifting them from their existing passive, receptive, and disempowered position into liberated thinkers (Luitel & Taylor, 2005).

Research Methodology

As the purpose of my study is to critically reflect on my learning and serving experiences as an educator, I have opted for qualitative research to share my narratives. Under qualitative method, this paper incorporates auto/ethnography as research design. According to Adam, et al., (2017), “Autoethnography is a research method that uses personal experience (“auto”) to describe and interpret (“graphy”) cultural texts, experiences, beliefs, and practices (“ethno”)” (p.1). I have applied auto ethnography as research design in this paper as I am using my personal experience as a learner, teacher and leader to describe and interpret the educational culture, beliefs, and practices in the context of Nepal. For my data collection I have used reflective journals to portray my narratives/stories.

For my research study, I have used a multi paradigm which includes interpretivism and criticalism as I have critically reflected on my teaching practices, leadership and the change that I have come throughout the time.

Final Thoughts and Realization

Though teaching was my first choice of career, being in education, I evolved as learner, educator, leader and human. I wasn't sure if I could be a good teacher but I was a topper student so I was hopeful to be a good teacher despite not having teaching experience. Pant (2017) also

had a similar experience which says, “I thought I could teach because I could solve almost all the problems given in the book. At the same time, I thought I could not teach because I did not have any experience of teaching” (p. 14). So, being a raw teacher, I followed the footprints of my teachers and taught my students in the same traditional ways whereby the students were mere passive learners. (Manandhar, 2022) also said as a teacher, he trailed the footprints of his teachers in educating his students and the teaching learning was restricted to four walls of classroom and supposed expert-prepared textbooks. Many of us have a similar story because there was no system of giving training to the teacher before they got into teaching professions. Usually, teaching profession was taken as an option rather than choice, so the love towards the profession was lacking which resulted in teachers pouring their frustration in students. For a traditional teacher if he has explained clearly and rationally, then the learner’s failure must be a result of his inability rather than consequences of the teaching (Gates, 2001, as cited in Pant, 2017). I believe that had there been proper criteria of teacher’s selection and compulsory pre-service or on-service professional development training to the teachers, things could have been different as I have become now than they could have been then.

The major realization through this self-evocative paper is that behavior/attitude can be changed throughout the time but learning is not a behavior it has to be linked up with understanding, applying and creating in real life situations. “All behaviorists agree on one central idea, that a science of behavior is possible. The foundation of behaviorist learning theory was the notion that behaviors are learned (become habitual) as an effect of reinforcement (Case, & Bereiter, 1984). The idea was insufficient to promote meaningful learning; thus it has certain limitations from the perfection of promoting a constructivist classroom. Behaviorism is regarded as a teacher-centered instructional pedagogy and has been in practice even today in many schools thus dominating every aspect of curriculum and pedagogy (Yilmaz, 2011). Punishing the student physically, was a common trend in traditional teaching which is also linked up with behaviorist theory. As a teacher, I applied behaviorist theory in teaching assuming that learning happens through regular practice and rote memorization which I imitated from my teachers. Transformative learning highlights the learner’s empowerment in probing the falsifiability of their own taken for established ideas (Luitel & Taylor, 2005). Reflecting upon my own experience, I have realized that learning is not a behavior rather happens through participation and experience as mentioned by famous philosopher Jean Piaget and what I did in the initial days of my career wasn’t the right way to teach rather it was painful to many.

Throughout my studies in Kathmandu University School of Education, I got to know that according to modern theories, meaningful learning happens when learners are involved in a meaningful task that arose from an authentic context (Jonassen and Strobel, 2006). So, meaningful learning is necessarily social, collaborative, intentional, authentic, and active. Now, I have been practicing constructivist theory through a thematic approach that supports integration, active participation, communication, collaboration, creativity, critical thinking and problem solving. Now, learners are given equal opportunities to participate in the classroom activities with the belief that every child can learn but not necessarily in the same space. Inclusive Education is all about not excluding anyone from the right to education. Also, we need to be more concerned about children’s learning difficulties and differences with a belief that every child has the potential to learn and the right to quality education. Inclusive education is about everyone’s fundamental right to access education and not being left out (Stubbs, 2008). Every individual should have the right to quality education regardless of their age, gender, caste, ethnicity, language, disability, economic status, geography etc. for which teacher’s professional development is must to be aware of all the differentiated learning strategies.

Transformation comes through critical self-reflection, realization and action (Luitel, 2022, classroom discussion). I realized that I was wrong in punishing the children for various reasons. Also as a privileged human, I should help others who are in need and this realization

helped be to be transformed from a Hitler to a Healer as Mezirow (1991) also states that transformative learning theory is a process by which we transform our 'taken-for-granted frames of reference to make them more inclusive, discriminating, open, emotionally capable of change, and reflective so that they may generate beliefs and opinions that will prove truer or justified to guide action' (as cited in Manandhar, 2022, p. 62). This evolving change in me has given me inner peace, satisfaction and strength to contribute in making learning meaningful and joyful for the learners. I wish to do more research in the coming days and be a change maker in the development of the education sector of Nepal.

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Experimenting with Teacher Professional Development at Scale for Karkhana Science Program: Education and Research for the Common Good

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Abstract

Teacher professional development is a key factor to improving the quality of Teaching practices, in order to improve overall quality of education. We live in an ever changing world with challenging times brought by life situations that are volatile, uncertain, complex and ambiguous. The content and context in which teachers get trained is not adequate for teachers to handle the kind of challenges they face in their classroom. Teachers lack understanding of the national curriculum and pedagogy it demands. They have very limited experience in creating flexible learning environments and assessing depth of knowledge. Teachers are finding the teaching profession less attractive but more challenging, one of the major factors was due to recent global shut down of school physically and overnight transition to virtual classroom due to COVID-19 pandemic. Teachers struggle and fail in most cases to make teaching learning effective and meaningful for students. Teachers were unprepared to deliver their lesson virtually as they lack the basic know-how of use of information communication technology.

There is a clear need and demand for continuous teacher professional development programs that are equitable, sustainable and of quality. But in the context of Nepal, there are no such teacher professional development programs that follow the global principles of teacher professional development. Karkhana Science Program has implemented a teacher professional development program to support effective adoption of hands-on inquiry based science teaching using Karkhana Science kit. This paper describes the approaches taken by the program for teacher professional development at scale in the context of Nepal addressing the challenges and lessons learned from the past.

Keywords: Teacher Professional Development, scale, hand-on science

Background

Rote learning is the dominant form of learning in Nepal. This has highly reduced students' curiosity and willingness to learn subjects like science and mathematics. Not having a scientifically literate population is hampering the development of the nation and is unable to break the vicious cycle of lower academic achievement.

The reason for teachers not being motivated to try new approaches is the course load, limited time, limited resources, assignment and correction, exam and results, pressure to finish the textbook and workload due to other events at school. In fact most teachers don't get free time to reflect on their own teaching practices. Teachers don't have time, energy, skills and resources required to design proper hands-on activity based classes. Even though they know that hands-on approach is effective in retention and transfer of learning, they are resource bound.

In this context, Karkhana, designed a science learning kit to fill the gap in 2017. The learning kit had a well prepared lesson plan, instruction sheet and well organized materials along with video and question banks. During the COVID-19 pandemic these learning kits were adopted by six different schools and fourteen educators reaching about thousand students in

2021. In 2022, the science learning kit is being implemented at thirty one schools, ninety one science teachers, reaching more than five thousand students all over Nepal.

Integrating hands-on inquiry based pedagogy into existing classrooms requires change in the mindset and behavior of the teachers as well as students. To empower teachers to adopt these science learning kits and to teach using hands-on activity based approach Karkhana designed and implemented a teacher professional development program throughout the year.

See annex 1 for video testimonials and photo of the Karkhana Science kit

Problem/Purpose

The major gap in the existing teacher development programs is that they are irrelevant one off sessions, with no proper follow up, and offers no space for sharing, feedback and reflection.

The purpose of this experiment with the community of science teachers is to try to fill those gaps and to create a teacher professional development model with quality, equity and sustainability.

Literature Review

The sustainable development goal 4 (SDG 4) aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. SDG 4 has 10 targets and target 4 c is to substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States by 2030.

Furthermore SDG acknowledges teachers as the key to achieving all of the SDG 4 targets as teachers are a fundamental condition for guaranteeing quality education, teachers and educators should be empowered, adequately recruited and remunerated, motivated, professionally qualified, and supported within well-resourced, efficient and effectively governed systems.

The TPD@Scale coalition for global south, refers to teacher professional development programmes which are mediated by ICTs and engage large numbers of teachers that blend online and offline methods, systems, resources and activities in ways that meet the needs of teachers' professional learning in diverse contexts.

They follow three core principles for TPD@Scale.

- Equity: fair access to learning for teachers that helps them respond to the learning needs of all their students, so that student participation, learning and achievement will increase.
- Quality: movement in teachers' practice that will enable greater student learning.
- Efficiency: the use of resources to ensure that desired outcomes are achieved in an equitable way.

The Teacher Professional Development Framework 2072 published by the Ministry of Education, Center for Education and Human Resource Development, describes teachers as the main foundation for quality education. It emphasizes that only well trained teachers can impart effective and quality education to students. The document puts utmost importance on the development of school teachers as the right to quality education is one of the fundamental rights ensured by the constitution of Nepal.

The current teacher professional development framework is designed to be of thirty days duration, divided into two fifteen days modules. Each module is then divided into ten days and five days. The first ten days are spent in whole day face to face training and the remaining five days as in-service practice followed by report submission. The teacher is evaluated based on the paper based examination after ten days face to face training and the marks obtained based on the submitted report. In the second module, the teacher can select the training on their own interest or subject.

Methodology

Karkhana Science Program designed a teacher professional development program that would run throughout the year providing continuous support, feedback, room for sharing and reflection. The proper implementation of Karkhana Science was the utmost priority for which the program provided the following support to the science teachers.

1. A printed workbook with all the instructions in text and graphic is provided to students and teachers to guide them through the science experiments
2. A printed guide book with safety instruction, materials details, solving common issues is given to all the students and teacher to take of the kit
3. Access to an asynchronous digital platform based on Google classroom with instructional videos, question bank, teacher resources, feedback forms that a teacher can access anytime to prepare their lesson.
4. A six hour initial face to face teacher workshop was given to all implementing teacher at the start of the academic year 2079
5. Seven two hours long In-person science days were organized to address the challenges faced by the teacher and for sharing success stories while implementing the science kit.
6. Four two hours long virtual science days were organized to address challenges faced by teachers and for sharing success stories.
7. Bi-weekly phone calls were made to the Karkhana Coordinator and teachers to understand their challenges and to provide further support.
8. A Whatsapp group was formed to share teaching moments, best practices, challenges and to resolve issues faced during implementation
9. In-person and virtual class observation was done to give feedback to teachers and for designing science days.
10. Teacher performance was tracked in a teacher's digital portfolio based on a teacher certification criteria to award certificates of accomplishment at the end of the academic year 2079.

See annex 3 for infographics of teacher support

Findings and Discussion

For effective implementation of the Karkhana Science kit in the existing classroom following experiments were done as part of the Teacher Professional Development.

Use of blended learning for TPD

Both face to face workshop and virtual synchronous as well as asynchronous modes of delivery were used to interact with teachers. At the start of the academic year a six hours of initial face to face workshop was conducted with twenty eight schools out of thirty one. It was necessary to build rapport with the teachers, to understand their motivation and challenges to join the TPD program. Also, teachers were onboarded into the Google Classroom and they learned to navigate the Google Classroom and to use the resources for preparing their lesson.

Use of offline printed materials

Besides the face to face interaction and online resources, teachers and students were provided with the printed materials like workbook, guidebook, digital kit code and materials all in a bag making it easy for teachers and students to manage the materials and do experiments inside the existing classroom. The workbook guided teachers and students to conduct the experiment by following the instructions, thus converting the classroom into a lab of discovery.

Followup Phone Call

Besides face to face training, asynchronous online materials, offline printed materials, we made bi-weekly phone calls to understand what they were planning to teach next week and how was their class this week. The bi-weekly phone calls helped to build better relationships with teachers as well as to understand their challenges. It also provided a lot of first hand information to design support for them.

Physical and virtual Science days

After having conversation with teachers and observation classes at a few schools, we realized that the initial six hours was not sufficient for teachers to be able to implement hands-on approach of teaching science in their classroom. So, we designed and delivered an additional fourteen hours of face to face science day workshop and eight hours of virtual interactions were organized.

Use of social media platform

We formed an all science teacher whatsapp group as a channel for instant communication with teachers. Teachers were encouraged to share their classroom moments in text, audio, photo and video. This created a sense of community, where teachers can share their challenges and success stories encouraging teachers to share what they had tried.

The photo and video shared by teachers was also shared in Karkhana social media like facebook, instagram etc which promoted the school that in turn encouraged teachers to share more.

Teacher digital and physical portfolio as school health indicator

A school health tracking system was designed in a Google Sheet, based on five different criteria viz the training hours, lesson taught, observation done, feedback given and photo/video shared by each teacher. The information on these five criteria was gathered from google classroom, whatsapp group, phone conversation, email and science days, and recorded digital as well as on hardcopy. The schools were color coded as RED and GREEN. Immediate action was taken in RED flagged schools. These information was converted into teacher's digital portfolios.

Teacher certification program

Certificates are always a motivation for teachers. Teachers were informed from early on that all the five criteria of their portfolio are also criteria for getting a certificate and if they don't meet all the criteria then they won't get the certificate.

Formation of innovative teaching practitioner's community

For the sustainability of the TPD program, we carefully curated the events, activities, appreciation and opportunities for the science teachers. We appreciated teachers who put extra effort and transferred their learning from the session into the classroom with appreciation letters and a flower. We have opened opportunities for teachers to be teacher trainers for next year's teacher training and gotten approval from the school administration as well. Whatsapp group interaction and physical / virtual science days have kindled a feeling of community of innovative science teaching practitioners among the ninety one teachers.

See annex 3 for video testimonials

Conclusions and Implications

Till end of Dashain 2079, it's almost six months of working together with the school leaders, department heads and science teachers to ensure smooth professional development of teachers. Following conclusions can be drawn from the experiences we have gathered from 2076 till date.

School Principal is the key

The principal of the schools is the master key that can unlock the potential of any teacher. The principal of the school must be onboard with the idea of TPD such that the teaching schedule is changed to create space for the teacher to attend workshops, do activities and plan lessons. This is also important as the department heads follow principals' lead.

In some cases school principals try science experiments along with science teachers or observe their class and even teach a science lesson using a Karkhana kit. Such an act from the principal sets a tone, becomes a model to follow and encourages teachers to adopt hands-on methods of teaching in their classroom.

Change in behavior and mindset takes time

From past experiences, we have realized that to bring about change in the behavior and mindset of a teacher, we need to work at least one year continuously with the teacher. This TPD is designed with the same idea of teacher engagement for an academic year. The workshops, observation, interactions and phone calls give data to track the progress made by each teacher.

In most schools we have seen teachers adopt classroom management techniques, formative assessment techniques and inquiry based pedagogy in their classroom. This also shows that if teachers get to experience an effective way of teaching, if there are models and if they get to practice micro-teaching, they will be able to effectively transfer their learning from the workshop into their classroom.

Teacher should be at the center of TPD

Getting the school leader and department head onboard is not enough, teachers themselves should be motivated to adopt new pedagogy. Implementing hands-on inquiry based pedagogy demands a lot from teachers, it demands change in the way they think, give instruction and assess students. Bringing change in the behavior and mindset is not that easy.

In the case of Karkhana science, the program was aligned with the national curriculum, which means it covers lessons that teachers have to teach anyway. Teaching lessons through well designed hands-on lessons made their work more meaningful even though it added some preparation time. Also teachers had fun along with students while doing the experiments and this is how a teacher wants their students to learn from their own experience, out of curiosity and questions.

Through the Karkhana science kit we have observed teachers being able to cater students with different learning styles, engage students in active learning, improve collaboration and increase in curiosity. Teachers have shared that those students who don't get good marks in exams do so well in these science experiments while those who get good grades struggle with experiments. These experiments give plenty of opportunities for teachers to build real world connections and to gain practical skills for students.

No compromise in quality

Ensuring quality of workshop either physical or virtual is very important. The session must start on time and end on time that follows the agenda for the day. Also, the text and video in the asynchronous digital platform needs to be short and clear. Each session should model teaching methods, assessment, inquiry similar to what we expect out of teachers. Failing to do so will have a negative impact on TPD as a whole.

We made sure every Karkhana Science day event details are sent at least three days ahead, with reminder sms a day before. We started the session on time and ended on time. The handouts were given to the teacher during training or an email was sent the same day. This communicates the amount of effort we put in designing and executing science day which in turn makes teachers put effort in their work and to be punctual for the event.

TPD should be equitable

Not all teachers have access to the internet all the time and not everyone can join the physical science day as some of the schools are out of Kathmandu valley. The printed materials support for those science teachers. For those who could not attend science day physically, virtual science day was organized or recording was shared after the event. In some cases the videos of how to run the experiment were made accessible through pendrive.

For TPD to be successful and effective, multiple ways of receiving support and giving feedback needs to be created. In our case, we set up a whatsapp group, phone call, sms, google classroom, email, class observation and meeting with school leaders etc was done to make it equitable.

TPD should be sustainable

Sustainability is a big challenge for TPD anywhere in the world. For sustainability there needs to be engagement, activities, followup and a sense of community. There is a need for a curator who manages the community and helps the community set its vision, mission and values. Finance is an important part of the TPD program for it to sustain its activities which was generated from school in our case.

The other part of sustainability comes from teachers doing sessions for other teachers. It could be an experienced teacher sharing their approach or a novice teacher sharing their learning or it could be an expert from abroad, or someone from curriculum development center etc.

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Annex 1

Here's the video of students using the science learning kit

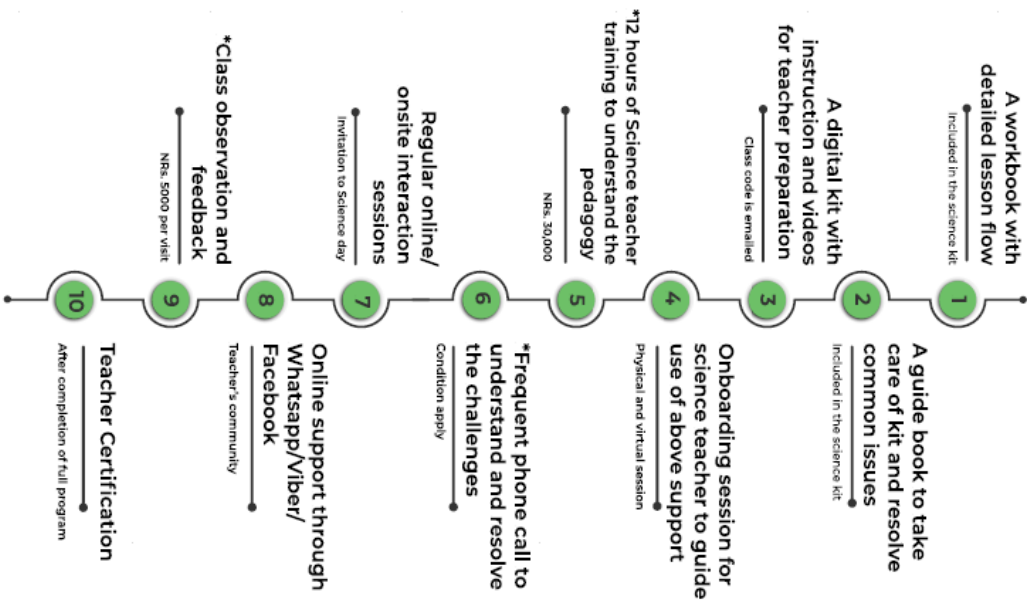
Below is the photo of the science learning kit.



Annex 2

Karkhana Science

Teacher's Support



Annex 3

Here's a video from one of our science teachers Ms. Shristi Shakya shares her experience as part of the community.

Here's a video from one of our science teachers Ms. Padma Laxmi Shrestha shares her experience as part of the community.

Employers' Participation in Technical and Vocational Education and Training in Nepal: A Qualitative Study

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Abstract

Technical Education and Vocational Training is considered to prepare youth for the world of work with relevant job-specific skills. Skills are the human capital that contributes to an individual as well as to the organization where one gets engaged. Conventionally, education institutions are key to impart skills to the learners, however, continuously changing skills demand in the world of work has increasingly established the employers and their participation in the skilling process. In this context, this study explores the employer's participation situation in curriculum process of TVET system in Nepal. The study reveals that there is weak participation of employer in curriculum making process. Hence, the study implicates the need for engaged participation of employers enhancing TVET system in Nepal.

Keywords: TVET, curriculum process, employer's participation

Background

Technical and Vocational Education and Training (TVET) is considered an education and training that prepares an individual for gainful employment (Maclean & Wilson, 2009; Bonvin, 2019). TVET as a system function at different levels and exits in collaboration with other surrounding institutions in the society (Scott, 2013). But the employers' participation in TVET, among the others, is taken a crucial in the TVET system. Although their participation is expected with various purposes, such as based on utility and needs, developing a sustainable TVET system with common ownership is also pertinent.

The participation of employers in TVET aimed at establishing a good relationship with TVET provider resulting it to preparation of labour market relevant competent human resource. The relationship between TVET institutions (education) and business or industry (employer) has been a subject of immense interest throughout the world. Nepal is not an exception. The co-operation and the inter-relationship of functions and responsibilities among TVET providers and employers with the supportive role of government have been one of the priorities of educational reform in recent years in Nepal (MOEST, 2019). For such linkage, education institution and employment organization can align more closely and support young people's preparation for work (Horderm 2018). However, the studies show participation of employer in TVET system of Nepal is weak and are taking time to develop due to knowledge constrain about each other's aptitude and possible support within the TVET system. The relationship with their autonomy and respect builds trust and esteems TVET system, hence, the engagement of employers' organizations in the TVET system has become a crucial issue for the study.

Problem/Purpose

The Education Flash Report 2018/2019 showed the overall survival rate up to grade 10 was 58% while only 22% survived up to grade 12s (Centre for Education and Human Resource Development [CEHRD], 2018). This shows that a large number of youth in Nepal is pushed out of the education system without properly preparing them for the world of work. It is obvious that the youth who drop the school before completing secondary education normally lack enough skills required for employment. Even those who complete the university degree often feel mismatch with their acquired education and need for employment. In such a context, TVET is considered an effective tool for preparing individuals, in a relatively short period, according

to the job world. The skills gained through effective TVET education process enable youth to enter the labour market. And the strong linkage between education and the labour market is one of the crucial prerequisites for the effective TVET system (Pilz & Li, 2020). But studies conducted in Nepal show various challenges which have been roadblocks in developing a strong relationship between the actors of education and employment in TVET system. The study conducted by Baral, et al. (2020) found domination of education sector implementing TVET formal program and this implies the weak relation between education and employment. Similarly, Bolli, et al. (2020) also found the relationship between accomplished primary and secondary education and formal employment had declined over time (1995-2014). From these scholarly findings, it can be concluded that the employer's participation in Nepal is facing multiple challenges and it needs fundamental effort for developing a strong TVET system.

In such a context, few pertinent questions that could be raised is – Why employers have weak participation in TVET system of Nepal? This study concentrates on these issues and aims to contribute knowledge in the sector.

Literature Review

The evidence, such as marvellous architectural skills inscription in the ancient palaces and religious monuments, Araniko and his colleagues' departure to China as a skilled worker show that there was a practice of vocationalisation of local skills in the long history of Nepal. However, it is also evident that those skills transformation process was mostly informal and associated with a family occupation which continued generation to generation. The establishment of Technical Training School in 1942 was a substantial effort to begin formal TVET in Nepal (Ministry of Education [MoE], 2012) which provided technical skills to the youth.

The TVET programmes in Nepal are offered in a supply-driven approach (Sharma, 2015). According to Kaminskiene (2009) in the supply-driven model, TVET providers play a crucial role. TVET institutions organize and plan the activities without any or sufficient attention to the needs of the labour market. Consequently, the school become isolated from the real working world and prepares workers and specialists who do not satisfy the requirements of the labour market. Considering the practical such challenges also in Nepal, many governing policies are enacted which are expected to strengthen the education-employment relationship effectively and efficiently.

A need for employers' participation in TVET system is anticipated in the existing governing policies. The constitutional and existing TVET policy provision employers' participation in national TVET development. The governing education policy also provisions for TVET reform at all levels of government where employers are anticipated as one of the key stakeholders for collaboration however, the desired roles among the stakeholders, especially, education institution and employer are not explained yet. The Constitution of Nepal 2015, Education Act, and other TVET policies have emphasized the TVET as a promising sector. As per the stated policy, TVET governance is devolved at three tiers (federal, provincial, and local) of the governments. The Educational Policy 2019 speaks about a collaboration among the stakeholders in the TVET system. Encouraging private sectors' participation in skills investment and developing partnership in the programme such as apprenticeship, internship, and on the job training, the policy also aims to reduce the mismatch between skills and labour market on the one hand and on the other hand provides the space for other stakeholders in the TVET system. The other governing policy is Technical and Vocational Education and Training Policy 2012. In its third objective, the policy aims to develop a relationship with its close stakeholders for increasing the relevancy of the skills. Nevertheless, none of the governing documents explains the extent of the relationship between education and employment elaboratively.

At present, in this regard, policies on TVET anticipate the participation of employers in TVET governance. Thus, developing a strong and sustainable TVET system in Nepal, there needs a fundamental effort in illustrating areas of relationship and possible roles of employers. The the participation of employer in TVET is conceptualized based on the idea that it enhances the TVET system in broad sense and contributes youth to transit from world of learning to world of work.

In the TVET system, actors of education and employment collaborate to meet purpose of individual system. However, in the system, the institutions also bear the responsibility towards the society where they exist (Miller, 2007). In this sense, institution of education and employment also are obliged to contribute in the TVET system. However, their contribution directly and indirectly aims to enhance the skills of the youth which is also expected to support transiting from world of education to world of work. The communication is a tool which takes place in various mode at different level of institution in the system (Luhmann, 1995). Regeth and Renold (2019) provide the detail of this relationship between these two institutions at three levels (design, application, and evaluation). The design is one of the sub-process where actors of education and employment develop the program in each other's collaboration. This study, however, only concentrates on employers participation in design phase of TVET curriculum process.

Method

The study followed qualitative study (Yin, 2018). The 11 interviews were conducted with employers, TVET providers, and academicians/TVET practitioners to know their view on weak participation of employers in TVET curriculum design process. The interviews were transcribed and generated theme in the meaning making process. The TVET curriculum process in this study is delimited to curriculum development where employers participate in the designing process making it more relevant to the existing need of human resource. TVET providers are institutions under the Council of Technical Education and Vocational Training (CTEVT) and employers are those who participate across these curriculum processes of CTEVT.

Findings and Discussion

This study explores vivid reasons for weak participation of employer in the TVET curriculum process. TVET system varies according to the policy option of a country however mutual participation between TVET providers and employers is a commonly shared principle in all the systems. However, the equilibrium in their relationship is largely explained by country context. In Nepal, TVET curriculum process is led by TVET providers. In this sense, the system is seemingly static although the existing TVET policy envisages the collective system. The TVET providers and employers collectively develop curriculum through the Developing a Curriculum (DACUM) process. However, employers feel that they are just witnessing the process rather than their engaged participation. The interview with the TVET providers and employers revealed that these actors of TVET system have unequal power-sharing across the process of the curriculum. Employers less like to play a decisive role when they are engaged as the TVET providers a formal legitimate authority exercise the power (Weber, 1947). In this backdrop, employers' meaningful engagement in the curriculum process becomes imperative to achieve the goal that Nepal envisages for a collective TVET system in the days to come.

Conclusions and implications

The meaningful participation of employers in the curriculum process is important in TVET system which increases the relevancy of graduates' skills in job market. TVET system in Nepal seems to anticipate the phenomena making provision of participation of the employer however it has not been effective in practice. TVET policy in Nepal emphasizes a collective system, however, neither it gains public commitment nor employers engage meaningfully. Hence, this study contributes an important knowledge of how unequal power-sharing between the collaborative partners results in their weak engagement. The findings of the study also add

value to the TVET stakeholders in Nepal who envisage reforming TVET governance from static to the collaborative system.

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Journey from Separate Subject Centric Pedagogy to STEAM-Sensitized Mathematics Educator

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Abstract

In our society, different people have different perceptions of mathematics. The perception such as – mathematics is a difficult subject, mathematics is for clever ones, mathematics is a male domain and so on (Sam, 1999), seem to be shared by people time and again. Among these various perceptions of mathematics, the majority of people share their negative experiences and perceptions (Belbase, 2013). It seems that the major blaming on this subject incorporates its abstractness, rigorous nature and lack of connecting it with other with our emotions, feelings and day to day practices. Basically, the mathematics curriculum itself seems to be promoting compartmentalized or isolated curriculum instruction, pedagogical practices and assessment system. From the curriculum perspective, the other disciplines have inter/intra connection within and with other disciplines explicitly/implicitly. However, in mathematics disciplines, the curriculum, instructions and assessment seems isolated in many cases. There are as if compartments such as Arithmetic, Geometry, Algebra, Statistics and others. In this regard, there can be seen less intra curriculum integration where lack of inter-curriculum integration among the disciplines can be found. Rather than integrating curriculum goals among the disciplines and encouraging learners for developing different soft and hard skills (Hendriana, 2017) through collaboration while learning mathematics, the approach seems to be competitive, isolated, disengaged and focuses on isolated knowledge reproduction.

Keywords: Compartments, Disengaged, Isolated, Multidisciplinary, STEAM Approach, Egocentrism

Competition Pedagogy: Again, the Competition has started!

The teacher enters the classroom. We, students of grade 9 welcome him. With his usual habit, he allows us to take our respective places with a hand signal. He puts his chalk box on the table, takes out a white piece of chalk and turns a page number from the textbook and starts writing topic of the new chapter at the top most part of the black board. The topic is “Area of the Pathways” Without speaking single word, he starts to write the conditions for different types of paths surrounding the differently shaped gardens or land and the corresponding formula to find their areas. Writing formula one after another along with the corresponding figures, he is moving ahead. We also copy those formula and draw pictures in our note copies which are drawn alongside each formula. After about 4 to 5 minutes, he starts saying, “*You might all seem to be finished copying different figures and their formulas from the board. Now let us see some questions as examples which help us to understand using these formulas in different cases. Let us start now.*” He turns to the board and creates a space for writing questions and answers. After writing the question, he turns towards us and asks,

Teacher: *Can anyone tell me which formula we need to use?*

One of our friends immediately stands and says

Kishan: *Sir, we have to use the first formula.*

Teacher: *Well done.* (With smile as if something has been achieved)

While these two persons are having a kind of conversation, many of us are still struggling with the questions like – why? how? why not ? and others. So, again the teacher turns

towards the board and start to write the answers. We, just again get busy copying the answers from the board. He waits for us around 3 to 4 minutes and again fires next questions on the board, repeating the same procedure. He asks us question at random. This time I stand and tell him the answer but may be because of rush or overconfidence, I say the wrong formula for the given question. The teacher loses his temper and starts scolding me, *“Don’t you know even a simple thing? Haven’t I said and showed all the formula at the beginning? Where is your mind?”* I am just standing at my own place and looking down with complete a feeling of being a failure. I think that I would not have to speak. I am feeling embarrassed. The teacher is still going on, *“Boy, pay attention to class, otherwise you will be out of the race!”* He turns towards others and asks, *“Who knows the answer?”* One says the correct formula. The teacher says, *“Yes! You are absolutely correct.”* Turning towards me, *“Hey you! Did you get it?”* I cannot speak even a single word so just respond to his question nodding my head. He tells us to complete the calculation and asks us the answer. In a rush, we start to run for the answer and say to the teacher (except me!).

Teacher: *Everyone marks all the questions in your notebook. Q.1. a, b, c, Q.2. e, f,*

Complete all these questions as your homework and tomorrow we will be attempting other questions.

Everyone: *Okay sir.*

Bell rings. The teacher collects all his stuff and leaves.

The following day we all are ready for our mathematics class. Last night I had memorized all the formulas and even asking with some senior brothers, I have completed all the assigned questions. Today I am ready for ‘*the race*’.

The teacher enters the classroom. We welcome him saying ‘*Good morning, sir!*’ He replies with usual hand gestures and immediately starts saying, *“I am sure that you all have completed your homework. Things are very easy. Actually, we cannot waste more time in these simple things. Let us proceed ahead. Today I will be giving some random questions from the book as well as from question banks. You do these questions one after another and tell me the answers.”*

By saying these things he takes out a piece of white chalk and starts to write questions on the white board from the book as well as from the questions bank.

Q.1. A room is

Q.2. How many pieces

By now he has not spoken even a single word. We all focus on copying the questions from the board. But I skip the questions writing parts and start to find the answers in a hurry. Some of my high ranked friends from the majority groups have also those strategies. A kind of race starts almost every day. The race is about who will find the answer and tell the teacher first. This is a usual battle in everyday mathematics class.

While I am somewhere in the middle of the process, one of the students from the other group immediately stands up and says the answer. The teacher turns towards him and says with a big smile, *“Well done! That’s the answer.”* Again, the teacher turns towards the board and continues his questions writing task. All of a sudden, my pen stops. I see my friend Diwas has the same condition too. We both have felt as if we have lost the battle for the day. Personally I feel like I am defeated severely by the opponent team member. In the other group, there is a kind of celebration for their great victory. As of me and my friend, we have already lost our courage, so the whole class time is under the other groups’ domination. We cannot speak anything. Our teacher is much busy writing questions on the board. He has already reached up to question number eight. One after another the other group members say the answers of different questions given on the board. Once, teacher turns towards our group and tells, *“Hey! Aren’t you guys doing? I have not heard any answers from you yet?”* We become almost speechless. I say, *“Sir, we are doing.”* Though I said we are doing. But in reality, we have been defeated several times within this period so for now we have surrendered ourselves and waited

for the period to complete. Bell rings! The teacher now turns towards us and says, “*Complete all the questions given on the board and complete the remaining questions from exercise 6.3. Tomorrow we will be starting exercise 6.4.*” Then he leaves the class.

In this regard, rather than bringing interdisciplinary ideas, real world contexts and creating the space or environment of collaboration and cooperation the sole intention was/is towards running all the time for the sake of obtaining correct numerical answers for various algorithmic problems and eventually achieving good marks/grades in exam. I would like to say this as ‘*Running Competition Pedagogy*’. The approach seems to be no pausing moment for a slower learner but always compelling for running and rigorous practice. Further, the teaching and learning focuses on rigorous practice and rote learning in decontextualized and disengaged environment. The space is largely occupied by ‘what is the answer?’ rather than ‘where can we apply? or where can we find this in our daily life?’. Every individual has their own speed and way of grasping the knowledge or internalizing the concepts. The reasons behind such thing may be many like – neurological status, interest, contextual background of the learners and many more. It is practically difficult to address the diverse approaching way of the learners by the teacher inside the classroom within the limited time frame but at the same time it is not impossible in trying to incorporate at least from traditional ‘*copy and paste*’ pedagogical boundary and giving space for learners to think and react with their prior understanding and experiences.

Mathematics pedagogical practice seems to be promoting a competitive environment where learning, creating, collaborating and other features are suppressed by competition pedagogy for finding the algorithmic numerical answers. Teachers seem to be busy completing the syllabus earlier and preparing learners just for examinations whereas learners are compelled to be prepared for good grades. Moreover, the banking pedagogy has been widespread in mathematics teaching and learning in an isolated environment. An old proverb “*ghokanti vidhya dhawanti kheti*” (literally: learning by memorizing; yielding by tending) seems to be much truer in mathematics education where various theorems, postulates, axioms and formulas have been considered as ‘*God-given statements*’ and ‘*blindfolded devotees*’ are compelled to chant them without any questioning. Almost no learner’s perceptions or ideas are taken into account besides strict logical reasoning and dry numbers. Being a mathematics learner and teacher for more than a decade in the same environment, I had/have been adopting the compartmentalized or separate subject approach in mathematics teaching in my practices though I have constant dissatisfaction with its approach.

STEAM Approach Sensation

The emerging discourse of STEAM as a multidisciplinary/transdisciplinary approach in pedagogical practice intuited me to pause and reflect my pedagogical journey. It gave me a kind of pausing moment to critically reflect on my deep-seated beliefs and my isolated pedagogical practices to date. It has been helping me to rethink the goals of educational practices which are supposed to be encouraging and helping learners to recognize the inert capacities. Further, it is for equipping learners with various skills and abilities for the real world. Hence, with the purposes of (i) critically reflecting on how different features of separate subject-centric approach is creating disciplinary egocentrism, particularly in mathematics education and hindering in promoting STEAM pedagogical practice and (ii) envisioning STEAM-sensitized mathematics education, I conducted this autoethnographic endeavor under multi-paradigmatic research space. Pondering into individual’s assumptions, belief and practices would provide the space for critical reflection and seek for possible improvements and transformation. This transforming self and then going to the outer world aspect is the key idea of autoethnographic study. In my context, I found it much appropriate method for dig into my assumptions and practice and seeing the possible transformation that can be brought through STEAM sensation. The research inquiry got its foundation with the theory of transformative learning theory and

Habermasian knowledge constitutive interests (technical and emancipatory) (1972). Unpacking and after that critically reflecting the various events and incidents of my pedagogical journey so far, I have tried to come up with some possible alternatives/improvements for orienting our mathematics pedagogy towards contextual, integrated and transdisciplinary learning. For this, I have used three key features of autoethnographic text: performative, dialogic (intrapersonal), and pedagogic enablement (Luitel, 2009). As curriculum instruction, pedagogical practices and assessment are vital components of educational process, keeping in mind these things and after being conscious through STEAM sensation, I envisioned the nature of these components in educational sphere, such as integrated curriculum for 21st century learners, teacher as an optimum scaffolder, learners as active collaborators in maker space and assessment as/for lifelong learning. These transformed features of mathematics pedagogy and roles of teachers, students and stakeholders have provided a gateway for redefining our curriculum instructions, pedagogical practices and assessment system to some extent. The process of pondering into our informed educational practice, going through a somewhat reforming process and eventually engaging in transforming domain has helped/been helping me in preparing skilled and critically empowered human resources for the sustainable development in my context.

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An English Teacher's *Currere* from Cocksureness to Critical Self-Awareness

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Abstract

In this paper, I narrate my evolution from a cocksure English teacher to a critically aware curriculum practitioner. I follow the *currere* method to retrospect, reflect and critique my curricular journey at Kathmandu University since August 2000. My narrative is primarily based on the key postulations by Pinar (2020) the four dimensions of the *currere* method – regression, progression, analysis and synthesis (p. 50). I also I draw from Reif (2017) the idea of *currere* as being “a profound method of personal reflection” (p. 12), from Baszile (2017) the notion of it being “a kind of mindful inquiry” to “harness the power of contemplation, reflection, introspection, and imagination” (p. vii); and from Majhani (2018) the aspect of “trying to make connections between past, present, and future” and “identifying and unpacking my biases” (Majhani, 2018, p. 56).

The Cocksure Beginner

I joined Kathmandu University (KU) in August 2000 as a Teaching Assistant in English under School of Science. My key assignment then was to teach courses in general English and Communication Skills. I had entered the University while in utter dilemma about my career path. A “fresh MA with a not-so-bad Nepalese percentage in English,” I thought KU was not a great choice. The Kathmandu market, in fact, was much more attractive with “half a dozen vacancy announcements per day” (Kafle, 2016, p. 55). And I was so sure I would ultimately shift to Tribhuvan University (TU), a public university. The journal I maintained during those days reveals this: “It [KU] is no doubt a private institution but far better than any other private ones. ... I shall therefore work there as long as I like and until I pass TU Service Commission for permanence. KU is far better than boarding schools and plus twos.” I wonder how I chose to join an institution without having learned about its nature and type. It was sheer cocksureness, indeed.

I had to teach courses in language, literature and communication skills. The key textbooks for language included *Meanings into Words* and *Reading between the Lines* and those for literary readings were *The Magic of Words* (a compilation of short texts), Shakespeare's *Macbeth*, Herman Hesse's *Siddhartha*, and Mary Shelley's *Frankenstein*. The key components for communication were oral presentation, routine correspondence, proposals, reports, and academic essays. I thought these were not much of a challenge to me. Compared to the volumes of fiction, prose, poetry, drama and critical theories that I had studied in the curricula of Bachelor and Master levels and the amount of engagement with Masters' thesis, the syllabi of Intermediate and undergraduate levels at KU looked to me very little and easy to cover. The reason? TU was a key reference point. Since I was considered qualified to teach at the Master's level courses at TU, and was already invited to a public campus of Kathmandu teach a course in literature in the Bachelor third year, what was the meagre amount of compulsory English at the intermediate and undergraduate levels of KU? I was cocksure about being more qualified for the KU courses. A year passed and I was promoted as a lecturer. To the Dean's question, “How do you evaluate your last one year?” during my brief interview, I explained, “Since no one has so far directly complained about my weaknesses, I must be doing fine.”

The courses I taught actually formed my entire curriculum. I had no plan to grow with it at the outset because I thought it was too little to exploit my potentials. I did not want to grow with what I had because I was fancying shifting to another university with a permanent position.

Did I, after all, have to understand curriculum development? Was I educating youngsters or doing my job that paid my family's subsistence and my aspirations? No doubt, I was humble and modest in my demeanors as a person, and honest in my performance as a teacher. But deep in my conscious self, I hid the conviction that I deserved more and higher and had a great faith in myself and my potentials. If there was any problem, I did not blame the fact of my being new and inexperienced at the University. I believed that the students were indifferent, uncooperative, and spoiled. Many of my colleagues who experienced cold responses from the students expressed the similar belief that 'this generation' of youngsters were not serious, disciplined, and studious.

The Confident Seer

It is already twenty-two years now. I landed in School of Education based in the Kathmandu Valley, after having served twenty-one years and seven months at the University's main campus at Dhulikhel. I am now in the academic ambience I coveted in August 2000. This constitutes the dream classes of the graduate and postgraduate programs in English Language Teaching and English Language Education. From this ambience I can comfortably envision several plans as the Head of the Department. I am see a number of opportunities ahead. I believe they are achievable. The confidence underlies the vibrancy of the team at the School, in general, and at the Department, in particular. My future plans are stated in the message as the Head, which include such promises as growing as a prominent center of English studies in Nepal, forging innovative and sustainable programs, continuing the legacy of mentorship, institutionalizing writing and communication center, extending services to other KU Schools and affiliated institutions, and increasing graduation rate, among others. ("Message from the HoD"). Even though these plans might sound ambitious, I am no longer cocksure now about my working conditions. I am wary of my intellectual limitations but confident about my proven competencies. Such awareness has resulted from twenty-two years of active teaching, administrative services, and leadership roles.

I joined as an *English teacher*, with almost no awareness of the need to take challenges as time passed. But from 2001, I began to partake in program development initiatives. Later, I was engaged in partly conflicting and largely challenging leadership role for two years (from 2011 to 2013) as one of the two Associate Directors of Student Welfare. With inception of the Humanities and Management Unit in 2013, launching of BBIS program in 2014, establishment of the Department of Management Informatics and Communication in 2019, and launching of the MPhil program in the main campus, I began to see myself more as a manager than a leader. Now that I completed twenty-two years the passion for mentoring defines my identity and ethos. Mentoring is about creating spaces of learning and transformation for those who seek guidance from me. It transcends teaching and management. I am trying to make even more profound sense of it in the days ahead (Kafle, 2021).

Critical Self-Awareness

Despite evolving drastically as a faculty and participating in curriculum teams many times, I confess, I failed to be formally trained in curriculum development. I was smug in my understanding that curriculum was a program with one or two specializations. Exposures made me cocksure to have achieved competence, to such extent that I hardly ever bothered to study the basic theories and practices of curriculum. I could indeed have noted some of these even during the unfinished one-year B.Ed. journey around the same time I joined the University. I could have bothered to internalize at least few of the curriculum theories every time I took up membership in curriculum committees.

My formal orientation on curriculum began only with the classes for Graduate Diploma in Higher Education, which I joined in August 2022. This recent exposure to theories and

practices of curriculum has helped me make a good sense of my past works and lent me some directions for my present and future curriculum design initiatives. Primarily, three readings have been instrumental in expanding the horizon of my understanding of curriculum: Schwab's (1973) five commonplaces; Schubert's (1986) curriculum images and Baptist's (2002) metaphor of curriculum as a garden.

The Commonplaces

The five commonplaces suggested by Schwab and extensively discussed by Null (2011) are subject matter, teacher, learner (student), milieu (context) and curriculum making. Though I may have tried to practice a fair balance of these factors earlier without knowing the terms, the familiarity now induces me to seek their fair alignment with my curricular practices. To begin with, 'subject matter' has been a perennial entity to me. While I was teaching at the Intermediate program of KU, subject matter was something handed to me with no chance for me to modify or upgrade. In those days, I thought the 'teacher' did everything and the 'student' had no role except to respond to my questions and write assignments. Since the curriculum and inherent syllabi were teacher-led, there was no consideration of the 'context' except that we were impacted by the temperature, hygiene and noise of large classes. And 'curriculum making' did not feature in my everyday work for quite a while until I became a part of an informal curriculum development initiative in 2001.

I see my present faculty role in new dimensions. With continuous engagement in curriculum and syllabus development and teaching, I perceive these commonplaces to have claimed maximum internalization in my practices. Now, as a 'teacher,' I tend to assert my authority as someone who wishes to replace a rigidly bulleted traditional syllabus by one with a more contextual, progressive set of contents with a prospect of being updated regularly. Now, I even ask learners to challenge a syllabus in particular and comment on the curriculum in general. A student to me is as much a learner as a co-creator of learning environment and knowledge.

After I initiated the launch of a cohort of MPhil in English Language Education (ELE) at the University's main campus in 2019, the urgency of contextual adjustment surfaced. As the immediate coordinator of the cohort, I had to reshuffle the courses, find a new team of faculties and allow them to prepare the syllabuses as they wanted to deliver. So, the cohort experienced the curriculum slightly differently than the regular Spring group. Moreover, when the outbreak of COVID-19 pushed everything to online mode, nothing could be more revealing about the 'context' (milieu) than the need to cope with the circumstances through timely (re)adjustments.

As a faculty at the graduate and postgraduate level at present, I experience 'curriculum making' in two dimensions. First, it is a continuous affair in that you tend to allow the syllabi to evolve with every batch while the fundamentals like curricular objectives, learning outcomes, and assessment rationales remain constant. Second, it is a scheduled task set to design an entirely new program or to revamp an existing one. Though through a seemingly structured process, we allow ideas and concepts to unfold while designing or implementing a curriculum. Moreover, curriculum is the work of a dedicated team. They might conceptualize a very representative structure and outline, but it is the process of arriving a consensus structure that works best.

The Dominant Image

A number of crucial factors unfold now when I observe our existing curricula, especially the M Phil program, in the light of Schubert's (1986) 'curriculum images' (which include subject matter, planned activities, intended learning outcomes, cultural reproduction, experience, discrete tasks and concepts, agenda for social reconstruction, and currere). Our curriculum features 'subject matter' as the area of specialization (e.g. English Language Education) or the degree offered, which integrates the subjects in English, English Language

Teaching and Applied Linguistics. The planned activities are specific to the individual courses set according to the objectives and expected learning outcomes of the individual subjects. Activities nevertheless are conducted with minimum common pedagogical approaches and assessment systems, and personal assistance and institutional services. The intended learning outcomes have been stated in each course. We emphasize these but have not performed frequent measurement and monitoring of actual achievements.

Our curriculum is partly a ‘cultural reproduction’ in the sense of our frequent efforts to customize it with the expectations of the prospective applicants who wish to survive in the competitive market. Also our work is partly influenced by the changes in governmental policies and evolving aspirations of the society at large. What really sells at a particular era influences the making of the curriculum. Furthermore, for any faculty of my stature, ‘experience’ is foundational to curriculum development. Naturally, when the system matures, curriculum development becomes a regular and comfortable affair. When faculties mature to become authorities of certain disciplines, they perform with the understanding, competence, and resources of what really functions the best.

I now believe that a university curriculum should be able to cross-pollinate diversity. I may have cherished such preoccupation because of being a product of humanities and having extensively served programs in science, engineering, arts, management, education, and medicine. So, the image of ‘discrete tasks and concepts’ implies to me the absence of trans-/inter-/cross-disciplinary orientation in a curriculum. Even though priority to specialized, disciplinary contents and pedagogies may make the program time-friendly and easy to run, and course delivery and assessments comfortable, prospects of holistic training remain minimized if curriculum is designed as ‘discrete tasks and concepts.’

In its history of three decades, the ‘agenda for social reconstruction’ has featured as one of KU’s recent priorities. The thrust of taking classroom from the campus to the community and the diverse curricular integration of community outreach initiatives in the undergraduate and graduate programs best represent (if not implement) the agenda of ‘social reconstruction’. We have tried to enhance broader community ownership and emphasized local transformation. Should universities inculcate universal all-applicable knowledge, skills and competencies in its own premises, or go out about (re)building the society? This question continues to haunt the university fraternity. But with the launching of the Integrated Rural Development Program in 2017 and the establishment of Community Engagement Division in 2019, serving the community in specific thematic areas has become a dictum inspiring gradual alignment of the programs to community needs. I personally feared the increase of political and ideological influence by the power elites of the communities. But we have maintained a relative autonomy for deciding our businesses so far.

Now we come to ‘currere,’ the most intriguing image of curriculum. I was almost ready to ignore it after the seven perceptible images discussed above. A little curiosity lent to learn the connotations of it as the verb form, I happened to delve into a vast philosophical terrain. A number of questions and propositions began to surge in my mind. How does one experience curriculum? How did I live through it? How does any program of ours (such as the M Phil ELE) allow the students to experience itself? Pinar (2020) helped me appease my curiosity. He elucidates that curriculum operates as much through “conversation, ongoing dialogical encounter among students and teachers in classrooms” as “within oneself in solitude” (p. 51). Curriculum, thus, is not only the program you join in an academic institution, but also what comes to your life the moment you are a part of the program and the institution. This has provided me a new thesis for further ruminations: Everyone has his own curriculum and is allowed to experience and internalize it in their own ways. Thus, people who go through the same courses and take the same pedagogical orientations are likely to develop different

competencies and sensibilities. Despite appearing to be one system, curriculum provides separate tracks to every student to run their own races.

Does curriculum run itself? Curriculum now appears like the earth to me, like nature with all potential to live itself and nurture those who come around. But the nurture manifests best through what Pinar (2020) calls “intensified engagement with classroom life, supported by the cultivation of a consciousness that remembers the past with an eye on the future while focused on the present” (p. 52). I understand this as the potential for infinity. However, without regular engagement of people and utilization of its nourishing supplies, curriculum may turn into a barely tilled piece of land.

The Garden

Baptist’s (2002) garden as metaphor for curriculum has further enriched my understanding of curriculum. The idea of garden as place and manifestation of life in totality reads to me as a complement to the notion of curriculum as *currere*, again, in relation to the lived experiences of both the educators and the students. To allude curriculum to gardening is to acknowledge “the lived experiences of the person within” as the “synthesis of orchestrated and phenomenological experiences” and in the light of one’s enrichment through “physical movement, intellectual engagement and creative imagination” (p. 20). The six views of the garden metaphor – faith, power, order, cultural expression, personal expression, and healing – are of perennial intellectual value to me as a participant and implementer of curriculum.

The notion of ‘faith’ reflects a pious convergence between curriculum implementers, educators, and learners. Curriculum in this sense embodies “human need for connectivity,” to nurture “mutual understanding through caring thought and action” (p. 27). ‘Power’ as the “symbol of individual or political prowess” (p. 27) represents to me a natural condition where educators and learners are placed in a vertical relationship while also being conditioned to comply with the dictates of a hegemonic institutional mechanism. But ‘order,’ in contrast, denotes the coherence and cohesion maintained in and by the curriculum. Baptist (2002) elucidates it as “the implicit meaning system” constituting “aesthetic, phenomenological, normative, critical, action-based, religious, and hierarchical framing modes” (p. 29). This, to me, represents the unity in diversity of subjects and symmetry in seemingly loose aspects of implementation and practice.

Baptist’s meaning for both curriculum and garden as ‘cultural expression’ in terms of the “reflections of their place and their time” (p. 29) echoes Schubert’s image of curriculum as cultural reproduction. In other words, like garden, curriculum can also be place- and culture-specific. But, since each place is different, curriculum is influenced by and tends to accommodate such saliences as cultural diversity, demographic requirements, and popular expectations. I, therefore, acknowledge the fact that “place downplays the isolation of overspecialization” as it promotes “inter-disciplinary diversity and connectivity in thought and action” (p. 30). Next, to associate curriculum with ‘personal expression’ is to acknowledge the “opportunity for personal creativity and expression” (p. 31) for both educators and learners. In this line, curriculum matures in “an evolving process of self-knowledge” which allows the learner to go through “spiraling progressions of self-understanding and informed meaningful action” (p. 32). Finally, the dimension of ‘healing’ in Baptist’s garden metaphor, ascribes curriculum a therapeutic character, the capacity to “promote healing and growth” by reestablishment of the sense of “personal meaning and balance” (p. 34). Like Baptist, I adhere to the postulation that curriculum should “reinvigorate new forms of knowledge” (p. 34) thereby liberating practitioners and learners from the confinements of conservatism and unidisciplinary indoctrination.

Conclusion

Through the attempts to internalize Schwab’s five commonplaces, Schubert’s eight images and Baptist’s six views on curriculum, I have come to realize that my team and I can

and must revisit the existing programs of English, and work cautiously for any program to be conceived in the future. No doubt, through project-based experiential learning, group works, research orientation and community engagement opportunities, the programs have fared quite satisfactorily with whatever size of intake they have attracted. The recently revised M Phil ELE program certainly promises to 'reinvigorate' itself and our temperament as implementers. The Masters program(s) in English Language Teaching demand transferring this new promise from the next intake.

The idea of specialization at the graduate and postgraduate programs sounds somewhat oxymoronic to the vision of holistic learning. We must, therefore, seek holistic potentials in the given constraints of place and time integrating dynamic contents, productive activities, and engaging assignments. My curricular premise (read it as promise as well) would be to attract and train students with the transdisciplinary integration of English studies, applied linguistics, language teaching and research orientation. I would continue to advocate the commonplaces of contextual subject matter and dynamic curriculum making, the images of learning outcomes and currere, and the views of healing and personal expression as foundational to curriculum development.

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Transforming Schools through Whole School Approach for Sustainability

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Abstract

The whole school approach (WSA) is one of the effective approaches for holistic transformation of school for creating a safe and secure learning environment for learners through policy guidelines, continuous professional development, improving teaching and learning involving all the stakeholders in school improvement activities. Main purpose of this research is to dig out the deeper layer of the whole school approach in terms of holistic and sustainable transformation of the school zone. I have tried to connect my personal field experience as a teacher educator, school consultant working with multi-facts of the school zone as a whole school system with this research. So, in this research, I have tried to explore WSA through the lens of progressivism, constructivism, and critical pedagogy as philosophical grounds and transformational leadership theory as a theoretical framework. Moreover, I have discussed directions and dimensions of WSA, and the philosophical, theoretical, pedagogical and policy gaps and suggested insightful ideas to fill the gaps.

Whole School Approach as My Research Agenda

The phrase 'school improvement' generally refers to the efforts to make school a better place for learning and improving learners' achievement (Government of Samoa, 2006). So, improving school refers to multi-facets of programs and activities including; leadership, teachers' professional development, positive school culture, developing and managing teaching and learning resources, improving school community partnership, etc. In the course of working as a professional teacher educator for almost a decade, I and my colleagues as a professional team got the opportunity to work in numerous schools in Nepal, including both community and institutional schools. We could bring significant change in the schools where we got the opportunity to work with multiple components like school leaders, teachers, parents, students and community people as a whole system (Mogren, 2019). This model of school improvement strategy is known as whole school approach (WSA) in which "all the members of a school community like; school teachers, teaching and non-teaching staff, parents and community people are involved in building and refining a thriving, positive school culture where everyone feels a sense of belonging" (Kwan and Cheung, 2016, cited in Dudu, 2019, p. 2). Working in two schools; one in Lalitpur and another in Makawanpur districts, despite the variance in their locations and contexts, the positive changes took place while involving the whole school community in decision-making, planning, and implementing for school improvement. Comparatively, this strategy became helpful to create a conducive learning environment in the schools as these components are inter-connected.

As clearly shared values are necessary for the shared motivation for creating a positive school climate (Goldberg, 2020), we worked with all stakeholders, having several formal and informal discussions, conducted a series of training sessions and workshops, students' counseling, parents' seminars, and developed resources as per the need of school. Putting the shared vision of the school, together, we set the goals and prepared necessary road map for school improvement. This strategy proved to be milestone for us to understand and critically analyze the existing ground reality of schools and develop necessary policy guidelines, school improvement plans, motivate them for change. As a result, we could organize a whole school exhibition inviting all stakeholders, community people, and local authorities at the end of the academic session to bring out the academic outcomes of the student's achievements.

Whole School Approach

Sustainability in educational development has been a major concern of the rapidly changing and complex world today. It is the collective action of all stakeholders to improve the learning environment of the school (Brown, Van Godwin, Edwards, Burdon, and Moore, 2021) that traces its philosophical roots on progressivism, critical pedagogy of Paulo Freire and constructivism of John Dewey as its philosophical grounds. It involves students, school leaders, teachers and other stakeholders in holistic improvement of the school. "The whole-school approach means to ensure that students learn appropriate knowledge, skills, and attitude through formal curriculum and classroom practices supported by sound policies, guidelines and practices" (Jamtsho, 2015, p. 72).

Through whole school approach, students' learning is ensured by formulating all essential school based policies, guidelines, practices and managing resources to support school in collaboration with all stakeholders. It focuses on the school as a whole – multi-facets of school life and involves all the members of school for its holistic improvement (wwf-India, 2014) for its sustainability. "Sustainability should not be seen as closed concept with the given solution. Rather, it should be considered as an ongoing process, finding new and best solutions" (Mathar, 2013). For its sustainability, there should be enough resources for everyone with enough opportunities to learn and grow. So, entire school community should be actively involved in supporting and motivating each other for creating a harmonious learning environment with a caring, supportive and establishing a positive school culture. As a result, students' learning environment becomes effective and promotes team spirit among all the members of the school community.

The whole school approach is guided by following guiding principles that follows the steps as mentioned in the figure below.

Directions and Dimensions of WSA

While going through various literature, there is no uniformity regarding the dimensions of the WSA. Based on the various literatures, the whole school approach includes the following dimensions.

Teaching and learning includes all curricular and extracurricular activities to ensure that each learner gets opportunity to develop necessary knowledge, skills and positive attitude through formal curriculum and student-centered pedagogy. **Leadership and management** that refers to the school leaders need to be able to present himself/herself as a far-sighted visionary role model who can "encourage participation of all stakeholders, respects human rights, democratic principles, equal treatment and participatory decision making" (Council of Europe, 2021, p. 4). Considering all the school staff as important contributors of holistic transformation of the school, they are involved in the **continuous professional development** through various training programs to meet the targeted goals. The **policy** dimension refers to values, beliefs and principles of democratic citizenship and human rights, based on the school's needs to create a safe and conducive learning environment in the school. Likewise, creating a **positive school culture** is necessary for a safe and welcoming school environment where all the staff have harmonious and co-operative relationship (Council of Europe, 2021).

As a part of **community involvement**, the partnership with various local agents e.g. NGOs, business houses, media, and health workers, entrepreneurial organizations and other schools, and higher education organizations, youth clubs is encouraged for sustainable improvement of the school (Council of Europe, 2021). Similarly, planning and implementing school improvement plans are not enough, rather they need to be monitored and evaluated on the regular basis as part of **monitoring and evaluation** to ensure that all the tasks are being completed on time and troubleshoots of any problem that arise in the course of implementing WSA for school improvement.

The WSA is directed by certain guiding principles. Council of Europe (2021) mentions five guiding principles e.g. respecting local context, empowering stakeholders to develop their own solutions to challenges, encouraging participation of all stakeholders, integrating capacity building and supporting local projects in long term. Therefore, implementing any innovative pedagogical practices and formulation of policy guidelines depend on the school's local context. It is essential to empower all the concerned stakeholders, equip them with necessary resources and involve them in collective decision-making for school improvement activities with democratic participation for creating a safe and supportive school environment for the learners (Friendly, 2014, cited in Dudu, 2019).

For the successful implementation of WSA, Council of Europe (2021) purposes five steps, e.g. conduct SWOT analysis, identify potential areas of change and develop action plan, implement action plan involving stakeholders, evaluate progress and assess the impact of the work, and finally, share outcomes with stakeholders for transforming school as a whole. As a result, the concept of transforming school for sustainability can be turned into reality involving entire school community (Hargreaves, 2008).

Transformational Leadership as Theoretical Premises

Transformational school leaders go through the process of empowering, uplifting, and transforming the level of whole school community through a compelling vision, inspiring role model, intellectually stimulating all stakeholders. They motivate and inspire them to achieve more than their capacity and focus on their higher level of needs (Korejan & Shahbazi, 2016). Apart from maintaining transparency and accountability, the leader can also restructure the organizational structure for effective resource management, capacity building and cost-effectiveness and strengthening school community partnership to share expertise and ensure children's wellbeing in the school for holistic transformation of the school.

However, Hope Nepal (2005) and Niraula (2002) state that official duties of principal do not highlight the role of head teacher in creating a vision, building community relations, mobilizing resources, team building, promoting collaboration, instructional planning and supervision, physical development and setting standards (cited in Singh & Allison, 2016). So, official duties of school leadership is narrowly focused on routined administrative work and resource management with centralized beaurocratic governance structure and lack of autonomy and decision-making power among public school head teachers. Although the Government of Nepal has made the provision for direct involvement of the local communities in the school management process after decentralization of education in the 1990s, the Ministry of Education has retained the authority over human resource management and the development of curriculum and textbooks, financing and educational planning, leaving head teachers and SMCs with little authority over strategically important matters (Sharma, 2013; UNESCO, n.d., cited in Singh & Allison, 2016).

Therefore, school leaders need to be provided more autonomy and decision-making power over centralized beaurocratic governance structure by revising educational policies that focus on the role of school leaders in creating vision, building school community partnership, resource mobilization, team building, promoting collaboration among the whole school community, instructional planning and supervision, infrastructural development and setting educational standards rather than limiting them on the routined administrative works. As transformational school leaders, they need to take direct responsibility to enhance quality of instructional activities, professional capacity building of their teachers and other staff throughout their career, establishing learning environment where whole school is geared towards enabling students learn best of their potential, promote family and community involvement in the whole school improvement programs and activities, and improve the quality of instruction (Payne, 2008, cited in British Council, 2020). Likewise, for leading the school in the 21st century, they need to shift their leadership practices from authoritative to instructional,

pedagogical and distributed leadership by giving more delegated power to their subordinates, greater accountability for students' learning outcomes and with external scrutiny (British Council, 2020). They need to lead the school being more collaborative and exhibiting moral purpose, integrality and authenticity when working with others (Munby, 2019 cited in British Council, 2020).

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Autoethnography: Bringing Lives and Research Together

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Abstract

Autoethnography is a qualitative research methodology that combines ethnography, autobiography, and self-analysis. It employs knowledge of the subject, its context, and other people within the similar contexts in order to comprehend the relationships between life and research. This article aims to introduce the collaborative autoethnography methodology that Niroj employs for his PhD research. Similarly, we examine the continuum of autoethnography, which provides examples of autoethnographers who have covered the topic and outlines the procedure for collaborative autoethnography. Similarly, this article explains how autoethnography, a research method that employs and even emphasizes personal experiences, can be used to examine the lives of individuals who are aligned with transformative professional development. We explain how autoethnography allows researchers to provide first-person accounts of their lives, investigate the everyday, unanticipated experiences of lives, particularly when confronted with unique or challenging circumstances, write against the limited existing research on lives, and make research more accessible to non-academic audiences.

Keywords: autoethnography, biography, collaborative, first-person accounts, accessible

Autoethnographic Lenses of Lives and Research

A wide variety of narrative representations are used in autoethnography, which employs the authors' personal experiences to overcome cultural divides. These portrayals are derived from local tales, vignettes, conversations, and role-playing by revealing action, reaction, and interaction in the form of self-narration and relating to lives and research. The autoethnographic papers show the autoethnographers' critical assessments of the general design and conduct of the study throughout this stage. These exhibits emphasize the connections between the autoethnographers' life and their research in terms of research ethics, reflexivity, alternate modes of representation, inquiry, and narrative.

Numerous narrative depictions of different contexts of involvement, including the creation of educational programs, applying culturally sensitive pedagogies, bridging the gap between life and research, and managing humanitarian crises, are included in autoethnography (Luitel & Dahal, 2020). Furthermore, autoethnographers give varied degrees of attention to the narration, description, analysis, and interpretation of autobiographical information. Living autoethnography is the focus of this article, which links personal experiences with academic inquiry. According to this sentence by Ellis and Bochner (2000), "Different examples of autoethnography lie at different locations along the continuum of each of these three axes," since "autoethnographers vary in their emphasis on the research method (graphy), on culture (ethno), and on self (auto)" (p. 740). The abovementioned definitions give autoethnographers a means of tying their personal experiences and academic work together in ways that transcend the distinction between the humanities and social sciences. In this process, autoethnographers employ a variety of techniques to communicate their traumatic and illuminating life experiences, including poetry, art, performance, dialogue, and co-constructed narratives. To demonstrate action, reaction, and connection through self-narration tied to lives and research,

they achieve this by utilizing local stories, vignettes, discussions, and role play. Similarly, autoethnographers might be able to promote conscience through critical observations on the study's overall design.

Researchers, participants, and readers will likely become more aware if they write about their experiences and tell tales as study (to name). The choices and actions that participants and researchers do today and in the future reflect their increased awareness. Similar to this, writing lives and sharing stories (Luitel and Dahal, 2021) by connecting lives and research requires acting in the real world, exhibiting narrative representations, and learning new things. These performances will address the research technique and results across various research scenarios. Connecting Lives and Research aims to "cultivate the critical conscience of researchers, practitioners, participants, and actors" through engaging with the real world in an ethical and participative manner (Luitel & Dahal, 2020, p. 1). Dale and Hyslop-Margison (2010) provide practitioners with certain forms of transformational sensibilities to enhance actions and thereby create better systems. They evaluate beliefs, presumptions, and behaviors by integrating lives and research.

Autoethnography: Evocative or Analytic

Plot I: Evocative

The goal of evocative autoethnography is to help the readers empathize with the writer's experience. With an emphasis on evocative autoethnography, one of the plots is presented below.

One day in July 2022, my son Ayush and I were looking at the news on YouTube. We saw an older woman talk to a reporter to Kantipur TV the night after a flood in the Tarai region of Nepal. After putting the camera closer to her face, we could see that she was sad, scared, and unsure as she spoke:

The flood came at night.

The house was under the water.

I told my son sitting to next room to rescue.

The son told hold on.

I told; you cannot hold me.

He said take care of your necessary belongings.

That was all I had.

I have now nothing.

I cannot find any belongings.

The house gone. I lost everything.

Plot II: Analytic

In fields like social work, health promotion, education and community development, an analytical autoethnography is particularly helpful during the planning stages of community-based action research. Analytical autoethnography is highlighted as an "action-oriented" technique for change in the plot presented below.

Sometime around March 2012... It's around 4:00 pm, I inertly inquire myself "What sort of research topic should I choose? How can I be able to choose it?" as I waited for the bus in an early cool evening for my university. As I sat and waited for the bus to come, which was unusually late that evening and threatened to dampen my mood, my thoughts continued to wander, this time, about what our Professor Luitel told us in our Research Methods class: "Start writing your stories...narratives...about yourself...your experiences and keep on writing." Finally, the bus arrived. "A vacant seat! Great!" I almost uttered loudly as the bus was always full in the evening. As I sat down, my thoughts continued: "How do stories and narratives support my research and most especially in accomplishing my Re-entry Action Plan?" my skepticism was trying to win over my

good mood. "Well, I just have to write my stories and see what comes out of it", I said to myself trying to sound positive this time. But how and from where do I begin my story...???

(Dahal, 2014, p. 3)

The previous two plots tried to introduce the idea of two schools of thought in autoethnography, where the analytical and evocative schools of thought are prominent. In contrast to Plot I, which is aligned with the evocative genre of expression, Plot II is aligned with the analytical genre of expression. The term "analytic autoethnography" is defined by Anderson (2006) as "research in which the researcher is (1) a full member in the research group or setting, (2) visible as such a member in published texts, and (3) committed to developing theoretical understandings of broader social phenomena." (p. 373).

Plot II, think analytically, speak analytically to oneself and others, and advance an analytical agenda. In contrast to the analytical agenda, Anderson (2006), Ellis and Bochner (2006) emphasize how researchers make intellectual and emotional connections to readers' lives as they describe their lived experiences. When a narrative is composed without taking into account our emotional lives, it is called evocative autoethnography (see plot I). This method incorporates the traumatic and illuminating lived experiences of autoethnographers in relation to their work and personal lives. In order for autoethnographers to transform their private concerns into the public sphere and make it strong, reassuring, vulnerable, and culturally significant, Ellis and Bochner (2006) intend to include autoethnographers in the term "autoethnography."

These two autoethnographic schools of thought enable the investigation of both the objective and the subjective sides of a given phenomenon (see Plot I and Plot II). Evocative autoethnography is crucial for linking the emotional self with the sociopolitical agenda, in contrast to analytical autoethnography, which seeks to combine the narrative and ethnographic traditions (Luitel & Dahal, 2021). When we connect lives and research, the analytical and the evocative co-emerge; one cannot be imagined without the other.

Collaborative Autoethnography: What to know?

We can only expect that the number of autoethnographies will increase as self-focused publications gain scholarly acceptance. This is due to the fact that easy access to the data source will encourage researchers to utilize their own life as a source of data due to the "publish or perish" pressure on academics (Ngunjiri et al., 2010). The majority of published autoethnographies have been written by a single author until now. However, more autoethnographies conducted by two or more researchers in collaboration have been published (Gale et al., 2013; Roy & Uekusa, 2020). Autoethnographers who collaborate employ a variety of collaboration models. Some researchers collaborate throughout the entire process.

During the research process, some people work together and at other times they work alone. Collecting data together is a key part of collaborative autoethnography, no matter how much people work together. During this phase, some research teams may use a sequential model in which one autoethnographer writes about his/her experience, passes that writing to the next person, who adds their story, and passes it on to the next person for more story additions (Toyosaki et al., 2010). Others use a "concurrent" model, in which the autoethnographers choose the people they will study, collect their own autobiographical data, and then get together to share, review, and ask each other questions to learn more (Geist-Martin et al., 2010). In this piece, we'll talk about the autoethnography we did together for two years.

During the research process, the research team must often get together to make decisions as a group. Because of this, this model of full and concurrent collaboration may be hard to implement. We looked into what we had in common because we worked at the same university and were close to each other. As a bonus, we call our group autoethnography "dialectic" and

"ethnographic." In the dialogic collaboration process, we looked at ourselves as individuals and talked to each other as a group.

By deciding on the broad scope of the study and the initial areas to look into during the first round of data collection, we were able to start working together. Next, we took a divergent action by writing about our experiences on our own after the initial convergent step. The "divergent" step gave us the opportunity to independently reflect and gather our autobiographical data, while the "convergent" step allowed us to decide the course of our research jointly. Then, after exchanging, analyzing, and exchanging questions with each other, we shared our writings. In order to determine the subsequent steps in data collection, we exposed ourselves to one another for further investigation and performed an initial data analysis as a group. We expanded our data pool with audio recordings of our convergent sessions. Throughout the process, we frequently transitioned between solitary (divergent) and group (convergent) tasks. Working together was based on the ethnographic goal of comprehending how our individual, sociocultural, and developmental identities interact.

Data generation, collection, analysis, and interpretation were also completed using ethnographic methodology (Blalock & Akehi, 2018; Chang, 2013; Chang et al., 2016; Hernandez et al., 2017). The data was examined using three different methods: exploratory analysis, open coding, and theme development. Through cooperative autoethnography, we have been able to forge a sense of community, advance knowledge, and gain the ability to influence institutional change.

Transformative Professional Development Through Collaborative Autoethnography

Transformational professional development is usually based on the theory of transformational learning. This theory of learning provides a framework for continued growth through critical reflection (Cranton et al., 2003). In the more general definitions of transformative professional development, it is emphasized how important it is to change mental habits so that people feel empowered and included. In this way, some transformative professional development strategies include action plans, reflective exercises, and critical discourses. "The emancipatory process of critically understanding how and why the structure of psychocultural assumptions has come to constrain how we see ourselves and our relationships, reconstituting this structure to allow a more inclusive and discriminating integration of experience, and acting on these new understandings," (Mezirow, 1981, pp. 6-7). Professional development is also a unique and changing process (Mezirow, 1991). Autoethnography is the process of making and using new, updated, and reflective interpretations of existing meaning and action systems.

Autoethnography is probably going to give teachers new epistemological spaces to reflect critically on where they are culturally located (Taylor, 2013). Consequently, the key query is how the researchers can critically reflect on both them and systems. Thus, to create action plans that involve everyone, transformative professional development entails critically evaluating one's own (and others') personal and professional values and beliefs (Mezirow, 2000; Taylor et al., 2012). In order to act in a way that benefits both oneself and others, critical self-reflection entails challenging deeply held beliefs and putting an emphasis on novel insights and lessons (Mezirow, 1991). Transformative professional development is based on the sociocultural approach to researcher identity development, which emphasizes individual empowerment and social change (Freire, 1972). The public perceives the experts as agents of social change. They must comprehend how actions impact the government and society. Finally, this procedure enables academics and professionals to engage in a genuine dialectical process, gradually moving toward conscientization, which is a meaning space devoid of contradictions (Freire, 1972).

Implications of Collaborative Autoethnography for Research Practices

This is our effort to disseminate Niroj's progress on his doctoral dissertation on collaborative autoethnography. Scholars continue to engage in scholarship that straddles the line between art

and science, despite the growing acceptance of self-centered writings as legitimate scholarly endeavors. We think that social scientists who do autoethnographies will have to defend their efforts to bring art and science closer together, which are usually at odds with each other. Autoethnographers can respond to the pressure in three ways: first, by continuing to ride the wave of postmodern defiance against the traditional separation of science and art; second, by returning to a more traditional scientific inquiry in response to the steadily growing amount of self-reflection that lacks methodological transparency; and third, by forming autoethnography collectives (discussed in the collaborative autoethnography section). The future of postmodernism and our response to the shifting scholarly trend will determine the development of autoethnography over the next ten years. Researchers are urged to evaluate this methodology critically in order to gain a deeper comprehension of humanity — the self in a social-cultural context.

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