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Embarking on a Learning Journey: Developing the PEPP&ER Framework for Action Research

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Abstract

PEPP&ER is a professional development framework that was implemented in the Institute of Technical Education (ITE) to enable teachers to surface and address concerns about teaching and learning collaboratively and in a systematic manner. This framework is aimed at creating a culture of continual learning and improvement amongst teachers to achieve ITE's vision of a "World Class Technical Education Institution for a Knowledge-based Economy and to facilitate the creation of a body of teachers' professional knowledge in ITE. Our experiences on the implementation of PEPP&ER emphasize the importance of helping teachers to attain greater depth in their analysis of their work and in exploring and applying strategies to enhance their role as teachers in the global economy. This paper captures my work in the last two and a half years as manager of the Academy for Best Learning in Education (ABLE) that relates to the development and implementation of the PEPP&ER Framework and gives an explanation of Action Research as the basis for the framework. It also captures the insights and discoveries made along the way that would eventually lead to the refinement of the PEPP&ER Framework into an Action Research model for the professional development of ITE teachers.

Keywords: Action Research, Professional Development of Teachers, Enquiry Reflection, Innovation, Teaching and Learning

**Embarking on a Learning Journey:
Developing The PEPP&ER Framework for Action Research**

I shall write this paper like I would paint a work of art and have the words flow from my mind, through my heart and make me come alive again as an action researcher.

Introduction

In May 2001, the Academy for Best Learning in Education (ABLE) was established in the Institute of Technical Education (ITE) as one of the several programs in the ITE Breakthrough Plan (2000) that is a five-year organizational road map formulated to promote an environment for continual learning and innovation. ABLE's mission is to promote best practices in teaching and learning amongst teachers and one of the key initiatives undertaken by ABLE was the conceptualization and implementation of the PEPP&ER framework for professional development of ITE teachers that is modeled on the Teachers Network's Learning Circles (Ministry of Education, 2003).

Although the framework has been established in the ITE as part of its organizational journey towards excellence, it is necessary to take stock of the extent to which the framework has helped teachers in acquiring the habits of lifelong learning and to reflect on its achievements and areas for improvement.

We are on the threshold of the next phase of this journey where we should explore ways to capitalize further on the PEPP&ER Framework to create a culture of enquiry and reflection amongst ITE teachers and to enable them to enhance their professionalism as teachers in technical education.

Phase 1 of The Learning Journey

The Learning Circles Concept

Learning Circles in the Ministry of Education (MOE) are based on action research principles and practice and comprise groups of teachers who work collaboratively to improve teaching practices through reflection, enquiry and dialogue. ABLE studied the concept of Learning Circles with assistance from Teachers' Network in 2001 and adopted this approach for teachers with adaptations made to the process.

In Singapore, the vision of "Thinking Schools and Learning Nation" mooted by Prime Minister Goh Chok Tong in 1997 had set the direction for educational changes both at the school as well as the level of teacher development. The MOE has responded to this need to provide professional development to teachers by providing the facility of Learning Circles for teachers to interact with their peers through a collaborative process of reflecting, planning, acting, observing and reflecting (MOE, 2003) to improve their teaching practices based on the recognition that:

"Teachers have valuable insights and experiences, about the way their students learn, about the subjects they teach, and about themselves, gleaned from working in real classroom situations, which can be built upon."

(Minister for Education, Rear Admiral Teo Chee Hean, 2001)

In 2000, ITE adopted a new curriculum model that also saw the introduction of a new Pedagogic Model in response to the need to produce a thinking workforce able to meet the demands and challenges of the new economy. Just as we are also heeding the call of the need to become a "Learning Nation", it was timely to look in terms of how our teachers could be given support in acquiring and continually developing their knowledge and skills in teaching and learning.

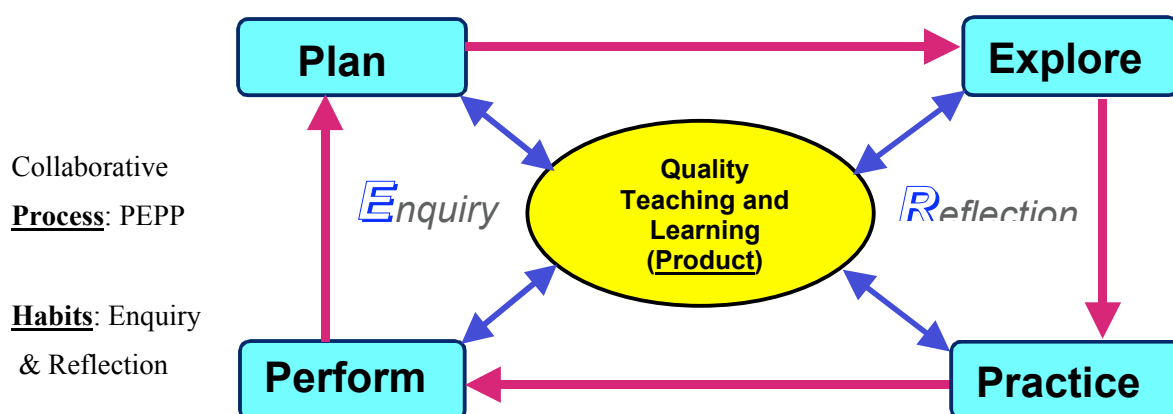
Development of the PEPP&ER Framework for Teacher Collaboration

In having to propose a model for Learning Circles in ITE my questions were: Would learning circles be a good thing for our teachers? Should we adopt the same process for collaboration? Did we have any existing platforms for teachers to come together and share? How would we make Learning Circles appealing to busy teachers? What kind of proposal would convince management and teachers that this was going to be a worthwhile project for them to embark on and would be aligned to the organizational goals?”

In November 2001, I worked on conceptualizing a framework for Learning Circles in ITE based on the rationale and concept of the MOE’s Learning Circles and ensuring that our organizational goals in relation to the promotion of continual learning, improvement and innovation are met.

The framework was conceptualized over a 3-month period from Nov 2001 to Feb 2002. It is depicted in Figure 1 below. It highlights the professional development of teachers in terms of Process, Products and Habits. The **process** (Plan, explore, practice, perform) brings teachers through a collaborative cycle that focuses on the developing **habits** of enquiry and reflection. The end result of teachers coming together in learning circles would be in the form of tangible **products** (professional knowledge on teaching and learning that is documented and shared) and **intangible products** (teachers who improve and continually seek to improve the quality of their practice).

Figure 1: The PEPP&ER Process of LCs in ITE



The objective of learning circles in ITE is to explore common concerns with the purpose of finding new and innovative ways to improve the quality of teaching and learning. It helps identify best practices and to create new knowledge for learning and sharing amongst ITE teachers. This framework seeks to transform ITE teachers into thinking teachers who do not wait to receive knowledge but are proactive in creating knowledge, not working in isolation but developing themselves in the company of colleagues. Mr Teo Chee Hean (2001) our Minister for Education at that time, gave emphasis to this point as follows:

“Thinking Schools Learning Nation involves a change in attitude and mindset about learning and continual change. Thinking Schools Learning Nation refers to thinking and learning schools, and this must, by necessity include the teachers. In other words, we must not just train teachers how to teach

thinking but it is more critical that we develop the thinking teacher who reflects continually on what he does and seeks to work with colleagues to do it better.”

Learning circles in ITE were formed in ITE to emulate the practices of the learning circles of the MOE in terms of creating opportunities for teacher collaboration and best practices for sharing. The MOE’s learning Circles adopt the approach of action research that takes the form of a cycle of reflecting, planning, acting, observing and reflecting (RPAOR) that was adapted from Kemmis & McTaggart (1988).

However, the approach adopted for Learning Circles in ITE adopts the plan, explore, practise and perform (PEPP) process of the ITE Pedagogic Model – a teaching and learning model that was conceptualized and implemented from 1999 to 2000 to enable teachers to facilitate learning through innovative strategies to develop thinking students for the knowledge based economy in the delivery of a New ITE Curriculum (ITE Staff Guide, 2000).

The approach taken by LCs in ITE embodying the PEPP process and the practices of enquiry and reflection has been systematically compared with the action research approach adopted by the MOE’s Learning Circles in Figure 2 below:

**Figure 2: Comparison of the PEPP&ER and RPAOR Approaches
In Learning Circles of ITE and MOE**

Approach		PEPP&ER (ITE)	RPAOR (MOE)*	
PLAN	ENQUIRY AND REFLECTION	<p>Plan to improve the quality of teaching and learning</p> <ul style="list-style-type: none"> ▪ Talk about individual concerns ▪ Examine beliefs and values and challenge assumptions ▪ Agree on a common concern to work on ▪ Articulate goal, objective (s) and target (s) clearly 	REFLECT	<ul style="list-style-type: none"> ▪ Revisit beliefs. ▪ Ask questions about concerns ▪ Agree on a Shared Area of Concern ▪ Collect data ▪ Analysis of data ▪ Propose strategies ▪ Discuss desired outcomes
EXPLORE		<p>Explore strategy or strategies for improvement</p> <ul style="list-style-type: none"> ▪ Discuss possible strategies that are innovative and creative ▪ Gather information where necessary to facilitate selection of strategy ▪ Agree on a strategy to address the common concern ▪ Agree on ways to monitor the implementation of the strategy - What, Why, When, Where, Who, How? 	ACT	<ul style="list-style-type: none"> ▪ Implement strategies identified to address the Area of Concern
PRACITCE		<p>Carry out the plan agreed upon</p> <ul style="list-style-type: none"> ▪ Implement strategy agreed upon by the ILC ▪ Observe, monitor, evaluate and make adjustments where necessary ▪ Gather evidence to support observations and findings 	OBSERVE	<ul style="list-style-type: none"> ▪ Take note of what works and what does not. Make observations, capture responses to reflect on the need to review and refine strategies to achieve outcomes.

PERFORM	<p><i>Share achievements, findings & reflections</i></p> <ul style="list-style-type: none"> ▪ <i>State achievement of goal, objective(s) and target(s)</i> ▪ <i>State the ILC findings in terms of the professional knowledge gained, areas for improvement, future actions</i> ▪ <i>Document and share the ILC experience, findings and reflections through sharing sessions, conferences, publications and virtual platforms like the ABLE website</i> 	REFLECT	<ul style="list-style-type: none"> ▪ <i>Critically reflect on how strategies affect learning and teaching.</i> ▪ <i>Capture learning process.</i> <p><i>Reflection is continual throughout the RPAOR process.</i></p>
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*Teachers Network Learning Circles publication, 2003.

The PEPP&ER Framework like the MOE’s Learning Circles has been developed using Action Research principles and practices as the foundation to build upon a process and practices that would enable ITE teachers to continually enquire and reflect on how they are currently discharging their responsibilities as teachers. It focuses their collective energy, resources and wisdom on how they could collaboratively improve their current way of working to the benefit of their students in preparing them for the workforce.

The Action Research Basis of PEPP&ER

In order to appreciate the concept of the PEPP&ER fully it is necessary to understand what is Action Research. Action Research is founded on the belief that in order for teachers know what to do, they should take on the task of doing research themselves, placing themselves at the heart of the educational process. This is Lawrence Stenhouse’s basis for the argument for teachers to be responsible for creating their own knowledge (Rudduck & Hopkins, 1985). I like the description of Action Research by McNiff (1988).

“Action Research is an approach to improving education through change, by encouraging teachers to be aware of their own practice, to be critical of that practice, and to be prepared to change it. It is participatory, in that it involves the teacher in his own enquiry, and collaborative, in that it involves people as part of a shared enquiry...It encourages teachers to become adventurous and critical in their thinking, to develop theories and rationales for their practice, and to give reasoned justification for their public claims to professional knowledge.”

The term “action research” was first coined by Kurt Lewin, a social psychologist. In his article on “Action Research and Minority Problems” (1946) Lewin, in proposing a process of planning in the area of social management, calls for research that involves “diagnosis of a specific situation” in addition to survey-type research because:

“To act correctly, it does not suffice, however, if the engineer or the surgeon knows the general laws of physics or physiology. He has to know too the specific character of the situation at hand.”

Lewin’s action research is a mode of inquiry that involves people inquiring into their circumstances collaboratively i.e. in groups, to improve their lives based on a common set of values. To him:

“Rational social management....proceeds in a spiral of steps each of which is composed of a circle of planning, action, and fact-finding about the result of the action.”

The idea of action research, first introduced as a social management device to improve the quality of human relations in the United States, was picked up by Stephen Corey and developed in his book: “Action research to improve school practices” in 1953. It was the first systematic attempt to define the characteristics of this form of research in education. To Corey, action research was the process by which practitioners (teachers, supervisors and administrators) cooperatively study their problems scientifically in order to guide, correct, and evaluate their decisions and actions in order to improve their practice. His contention was that practitioners would make better decisions and engage in more

effective practices if they were able and willing to conduct research as a basis for these decisions and practices.

The Action Research movement in the United Kingdom gained momentum and prominence under the influence and work of the late Lawrence Stenhouse in 1967. Stenhouse can be considered the founder of the action research movement in UK. His philosophy of educational research is best represented, I feel by the following extract from his work “What counts as educational research?”:

“We deal in education – as with medicine or law or social work – with human action which cannot be channelled through headphones. We need real pupils, and we cannot properly engage them in doubtful experiments or even in placebo treatments....in short, real classrooms have to be our laboratories, and they are in the command of teachers, not of researchers. This is the characteristic of professional schools: the research act must confirm to the obligations of the professional context. This is what we mean by action research. It is a pattern of research in which experimental or research acts cannot be exempted from the demand for justification by professionals as well as by research criteria.... Such a view of educational research declares that the theory or insights created in collaboration by professional researchers and professional teachers is always provisional, always to be taught in a spirit of enquiry, and always to be tested and modified; by professional practice. The teacher who founds his practice of teaching upon research must adopt a research stance to his own practice: it must be provisional and exploratory.”

(Stenhouse in Rudduck and Hopkins, 1985)

The writing above on Action Research is taken from my dissertation “Action Research: The Art of an Educational Enquirer” (Kok, 1991) that captures my action research experiences and educational development with Jack Whitehead whose Living Educational Theory of Action Research (Whitehead, 1989) is now well accepted and practiced in UK, Canada, China and Japan. At the time of writing my dissertation, I could feel the tension between the supporters of the traditional research approach and the work of Whitehead and others who advocate Action Research approaches and arguments were mostly about the right and the wrong way of doing educational research based issues of validity and reliability and whether theory should be generated by the academics who do research on teachers and students or whether teachers should create their own knowledge by being researchers themselves.

More than 10 years after my dissertation was written, the acceptance of Action Research has spread its wings and evidence of its influence on the professional development of educators reside in the world wide web in various forms. The adoption of an Action Research process by the MOE of Singapore for the professional development of teachers in 1998 signals that the achievements of Action Research in that it is valued for what it sets out to do: to improve educational practices with the teacher or practitioner at the heart of the research inquiry.

Action Research has evolved and established itself as a professional development approach that has universal appeal to teachers and cuts across diverse cultures having been recently introduced to Guyuan Teachers' College, Ningxia Province, China (Laidlaw, 2004). Action Research is about change - in the people who value and believe that change brings progress and personal, professional and social development. In 2002, Jean McNiff's definition of Action Research in the second edition of her book “Action Research: Principles and Practice” also shows her professional development when compared with the earlier 1988 definition:

“Action research is a name given to a particular way of researching your own learning. It is a practical way of looking at your practice in order to check whether it is as you feel it should be. If you feel that your practice is satisfactory you will be able to explain how and why you believe this is the case; you will be able to produce evidence to support your claims. If you feel that your practice needs attention in some way you will be able to take action to improve it, and then produce evidence to show in what way the practice has improved.”

It is this on this basis of Action Research that PEPP&ER Framework has been developed.

Implementation of the PEPP&ER Framework – Mar 2002 – Mar 2003

The development of the PEPP&ER Framework was from Mar 2002 to Mar 2003 and the next task of ABLE's was convince the management of the two ITE networks about the value of this framework and to have a few groups of teachers to try it out.

In designing the presentations to be made to the network management I was guided by the question "What kind of proposal would convince management and teachers that this was going to be a worthwhile project for them to embark on and would be aligned to the organizational goals?" Focusing on this question enabled me to be convincing in presenting the new view of professional development of teachers as being collaborative, enquiring and reflective. I learned that it was extremely important to present Learning Circles as being able to add value to the organization in terms of better teaching strategies, better student learning, behaviors and performance.

Resulting from these presentations to the network management, nine Learning Circles (LC) were formed in ITE to pilot the PEPP&ER Framework followed by the conduct of Learning Circle Appreciation talks/workshops to equip teachers with the skills and knowledge of the framework so that they will be able to benefit from their involvement in Learning Circles.

In Nov 2002, the PEPP&ER Framework was documented, presented and endorsed by the Academic Council (AC) chaired by the Director and Chief Executive Officer of ITE. This paper also included a model LC project that demonstrated the professional growth and development of teachers and that contained evidence of the improvements made by students as a result of the collaborative work of the teachers in the LC through PEPP&ER (Leong & Tan, 2003).

In May 2003, PEPP&ER was assimilated into ITE's new Employee Innovation Framework for promoting staff involvement and innovation towards the goals of organizational excellence. Training sessions for LC leaders were conducted to equip them with the essential knowledge and skills to get them started in working towards the kind of collaboration based on common concerns and the continual enquiry, reflection and dialogue in the PEPP&ER Framework.

Taking Stock: What Has Been Achieved Through The PEPP&ER Framework?

At this point in my learning journey as the manager of ABLE working over the last 2_ years to establish PEPP&ER as the framework for the professional growth and development of ITE teachers in ITE, I need to take stock of what has been achieved so far. I have to gather the results and reflect on them to see what improvements can be made and where the issues or concerns might be. Without enquiry, there can be no reflection and no moving forward. Thus for my own professional development, I make the following enquiries:

- To what extent has the PEPP&ER Framework influenced changes in the current collaborative practices of teachers? (The process)
- Has PEPP&ER proven to be useful framework that benefits the teachers in terms of their professional growth and development? (The intangible product);
- What best practices/teachers' professional knowledge has been created for sharing amongst teachers in ITE? (The tangible product);

The answers to these three questions are in the form of the evidence provided in the following paragraphs to support the claim that the PEPP&ER Framework has given positive results towards the professional development of teachers.

Evidence I: How PEPP&ER has influenced the quality of Teacher Collaboration in ITE

To reiterate, the goal of the PEPP&ER framework, is to provide teachers with a facility to work collaboratively in small groups **to improve the quality of teaching and learning and to create teachers' professional knowledge**. Before the introduction of this framework, teachers and non-teaching staff from ITE have had opportunities to work in small groups as Work Improvement Teams (WITS) to seek ways to improve productivity at work with emphasis on the use of quantitative tools,

brainstorming and observation techniques. The targeted outcomes were aimed mostly at cost savings or reduction in time. All staff were encouraged to be take part in WITs to undertake projects using the Plan, Do, Check Act (PDCA) cycle (Shewhart, 1986).

A survey of 110 titles of WITs projects submitted in 2001 yielded only 4 titles that suggested that they were on teaching and learning. Typical WITS projects done by teachers bore titles that indicated that the endeavors of the teams were aimed at efficiency of work processes or cost savings (Figure 3).

Figure 3: Sample Titles of WITS Projects undertaken by Teachers

<ul style="list-style-type: none"> ▪ Reducing wastage of energy consumption in workshop; ▪ Saving time in marking coursework and test papers; ▪ Reducing difficulties faced in testing ▪ Improving storage of data files for students' work ▪ To improve students' attention during practical lessons 	<ul style="list-style-type: none"> ▪ To improve teaching methods to maximize student learning during common hour ▪ To reduce damage to student workbenches ▪ To improve the current NAPFA Test Sit-and-Reach Board ▪ To enhance staff efficiency in development of course materials and promote independent learning in students
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Since May 2003, PEPP&ER has been assimilated into the ITE's Employee Innovation Framework that in responding to the Public Service Commission's (PS21) move away from the rigidity of work improvements to developing a "holistic approach in promoting teamwork, continuous improvement and continuous learning in the public sector". PEPP&ER is now offered as another process for staff collaboration other than the PDCA cycle that had been entrenched for many years as the process for collaboration amongst staff to seek ways to work productively. Currently, all former WITs teams and Learning Circles formed before May 2003 have been renamed Innovation and Learning Circles (ILCs).

The 7 of the 9 pilot groups of Learning Circles that were formed in 2002 presented their projects using the PEPP&ER Framework as ILCs at an in-house event, the ExCEL Carnival 2003 teachers. In comparison with the project titles in Figure 3, the project titles of these learning circles (Figure 4) show a significant absence of quantitative concerns and give fresh indications of teachers genuinely investigating the effectiveness of their practices and addressing concerns that pertain to teaching and learning.

Figure 4: Learning Circle Projects

ILC(PEPP&ER) 2002 – 2003 (Pilot LCs)	ILC (PEPP&ER) 2003 – 2004 -Samples
<ul style="list-style-type: none"> ▪ Fostering teamwork and bonding amongst students in the Building Drafting department; ▪ Helping students with low self esteem to develop self-confidence; ▪ Finding effective strategies to make the learning environment interesting and caring to reduce attrition; ▪ Seeking an innovative approach to teach alternative logic circuits implementation; ▪ To Stimulate Students' interest in learning through a Project-based Learning Approach; ▪ Proposing strategies for overall student development ▪ Student Peer Evaluation in Group Projects. 	<ul style="list-style-type: none"> ▪ Turning difficult concepts into simple illustrations. ▪ Innovative Teaching: Doing it Right! ▪ Generating Experiences to motivate students. ▪ Harnessing Students' Input in the Learning Process. ▪ Facilitating Non-verbal Communication in the Communication Skills Module ▪ Developing and building a training model for teaching the topic on "Rotating Magnetic Flux".

The quality of learning and sharing amongst teachers who used the PDCA cycle differ markedly from the experiences of those who applied the PEPP&ER Framework in making enquiries about how they can improve the teaching and learning situations that they have genuine concerns about.

Reports using the PDCA cycle emphasize the use of brainstorming and problem-solving techniques and cost-effect analysis. In contrast, the PEPP&ER Framework, although not ignoring totally the use of quantitative methods to collect data, work on the basis that data should be obtained from those who can give you the most honest and accurate information. Instead of collecting information about students, teachers in LCs communicate with students to gather feedback to understand their needs better. Instead of brainstorming for solutions, LCs tap on the tacit knowledge and wisdom of teachers in the use of tried and tested strategies and in enquiry and challenging of assumptions lead teachers to look out of their own sphere of experience to explore the wisdom of others like them who share their knowledge and practices generously on the World Wide Web:

“Through a dialogue session conducted with a group of 20 students, we discovered that our students appreciated lessons that included some fun activities such as games, especially those that involved some but not too much movement, competition and involvement of all students in the class instead of just selected individuals. Following this the team further reflected, discussed and decided that for a start, we would adopt the strategy of developing and using a game related to Customer Service concepts for students to play in class. This was based on the rationale that ‘a classroom should be a place of fun as well as instruction. Student motivation can increase with the use of games to reinforce skills and concepts learned”

From ILC Project on Enhancing the Facilitation and Learning of Customer Service Skills

Happy, Mar 2004

This feedback from the ILC members and other similar comments in the ILC reports are evidence that the PEPP&ER Framework is capable of changing and influencing teacher collaboration towards outcomes that are meaningful and impact directly on how they are doing their jobs as teachers. PEPP&ER is a more humanistic approach of tackling educational concerns through enquiry and reflection so that our ITE teaching staff *“...can become better teachers as they learn from experience. They are capable of reflecting on their own practice (both in action and in reenactment). Thereby discerning the proper ways to adapt their thoughts and actions to future challenges.”* (Shulman, 2004, pp 313).

Evidence II: How PEPP&ER has benefited teachers in their professional growth and development?

PEPP&ER is a way of working that is not familiar to teachers because of its Action Research underpinnings. PEPP&ER acknowledges that teachers are thinking and feeling beings coming together not just to solve problems but to share their experiences within a framework that honors respects them for who they are and not just members of a team tasked with a project to complete. In “The Courage to Teach” (Palmer, 1998), the author pinpoints the stumbling block to good teaching when he writes *“...We rarely talk with each other about teaching at any depth – and why should we when we have nothing more than tips, tricks and techniques” to discuss? That kind of talk fails to touch the heart of a teachers’ experience.”*

There is evidence to show that teachers who have been introduced to PEPP&ER have found it to be meaningful and professionally satisfying. More articulate and expressive members of LCs share how they have grown as persons and professionals as follows:

“There is a lot of self-discovery you know...who can accept me in this tone and who cannot accept me. I find that I learned about myself more; how people work and how people think.”

“It takes time for the person to grow with the group. So, that also puts me on the learning mode...to be more gentle and sensitive to the vibes of the non-verbal around.”

“Unless we can feel as students, we cannot feel for the student. So I think the empathy part is there. Learning circles allow us to empathize...”

Other LC members from amongst the 9 pilot groups shared in their reports about how they have benefited in their personal and professional growth in the following ways:

“Greater friendship and teamwork, deriving satisfaction by making a difference to students, able to exchange and share professional knowledge. Time has been meaningfully spent in being a co-learner and critical friend. We were able to voice out and confront our difficulties and problems from various angles, knowing our sharing would be valued. Our colleagues gave us the recognition and support for what we were doing.

Dart ILC, 2003.

“Working on this project has made me see things from a different perspective. It was a pleasant, and enriching learning experience. When I did WITS projects, we paid a lot of attention on costs saving. However, working on the ILC project, we paid more attention on the personal development. It has helped me to realize that even a simple project can have a very positive impact and outcome for both the students and teachers. The team members were supportive and co-operative, even during stressful times and when differences in opinions exist.”

A Factor, Mar 2004

PEPP&ER has been such a fulfilling learning experience for one teacher in the NE LC that she was moved to summarize her thoughts in a poem:

*“Just mention Learning Circle
And I will volunteer
It's enriching and satisfying
It raises interesting questions
It's a sea of learning
Where you find priceless pearls
Just relax, share and learn”*

Teachers who have made use of the PEPP&ER Framework in learning circles have experienced personal growth and professional development through the sharing of common concerns, feelings and support from each other. They found themselves actively engaged in seeking better teaching and learning experiences for themselves and for their students. It was through these efforts of making time to relate to each other, not as members of a task force or department but as valued individuals that teachers have agreed at the end of the learning circle project, they were more refreshed and wiser for the experience.

Evidence III: How has PEPP&ER facilitated the Creation and Sharing of ITE Teachers' Professional Knowledge?

The creation of ITE teachers' professional knowledge

“As teachers, we always share our thoughts with each other, but we don't formalize our sharing. In learning circles, I see it as a place for us to formalize our sharing, and to have a framework to improve our sharing...to do it in a structured way and at the end of it there is something fruitful from the sharing. To me, LC is a time to learn from each other, to learn how to share and relate to each other.”

LCCL, 2003

To recapitulate on the three key aspects of the PEPP&ER Framework - Process, Products and Habits, I am now taking stock of whether PEPP&ER has been proven to be capable of generating the tangible products in the form of **professional knowledge** on teaching and learning that is shared to benefit and influence the practices of peers.

What constitutes teachers' professional knowledge has been discussed in great depth by Schon, 1982 in his well-known work “The Reflective Practitioner”. In my Action Research journey with Jack Whitehead of the University of Bath in 1990, I got a personal account of what professional knowledge

is through my dialogues with him (Kok, 1991) that I find precise in describing the kind of professional knowledge that we should be capturing in ITE:

“I think it is crucially important because if we want the profession to take on the qualities of the medical or legal profession and one of the characteristics of the high status profession is that they have a body of knowledge or theory to guide their practice. If you look at medical or law...in law there are bodies of case law built up over generations which then guide that profession. In education we have suffered for generations from the ideas of academics who have not studied teaching themselves and have not engaged in research on their own educational development of their own practice. In the sixties and seventies, educational theory was held to be made up of the contents of psychology, philosophy, sociology and history or education. So the reason I think it is so important to generate an adequate theory of education is that it can then be related directly to the educational practices of teachers with their pupils and be part of the process of enhancing the learning of pupils”

(Jack Whitehead quoted in Kok, 1991)

Capturing and Sharing of ITE Teachers’ Professional Knowledge

The “educational practices of teachers with their pupils” in ITE have been captured in reports that record the reflections and articulation of professional knowledge gained by teachers in the LCs as well as the process of their respective collaborations. These documentations of the “*educational practices of teachers*” contain the professional knowledge of the ILC teachers for they have been “...enacted in the crucible of the ‘field’. Professions are ultimately about practice. The field of practice is where professions do their work, and claims for knowledge must pass the ultimate test of value in practice.” (Shulman 2004).

These reports are the raw materials for organizing the professional knowledge of our teachers in terms of Innovative and effective teaching and learning approaches, strategies and methods in the areas of instructional design, student motivation, use of technology, assessment, student development. These ILC reports, as they grow in number, have the potential to be organized into knowledge that serves the varied needs of our teachers ranging from common approaches or strategies to possibly subject-based pedagogies. Teachers reap the benefits of these documentations of professional knowledge by being able to learn from the experiences of their peers. The professional knowledge captured will provide a rich resource for peers to reflect, make enquiries and build upon to improve further or refine strategies for use in their own practices.

The products of ILCs were given professional platforms for showcasing and sharing. The ILC reports are easily accessible by all staff on an electronic database in ITE and 6 ILCs presented their work at the ITE Teachers’ Conference 2003. In the coming ITE Teachers’ Conference on 1 Oct 2004 there will be 10 ILCs presenting their work. One of the 9 pilot learning circles presented their work at the Asia Pacific Conference on Education: Re-envisioning Education: Innovation and Diversity in June 2003.

In sharing their professional knowledge on formal educational platforms, our ITE teachers are moving a step forward towards greater professionalism in their work and it is only in becoming visible not just within the organization but also outside it in the global context that our teachers can make a mark on their profession. This is the direction that our teachers should be encouraged to move towards in their learning journey as professionals.

The Next Phase: PEPP&ER Framework for Action Research

At this point in my learning journey where I have documented the PEPP&ER experience in detail in the writing of this paper, I am in a way researching into my own practice as manager of ABLE. To be true to the practices of an action researcher, I will think about the way forward for teachers by first examining my values and beliefs about the PEPP&ER Framework now that it has been implemented, surface my concerns and develop my enquiries to guide future plans.

Values and Beliefs

As an Action Researcher, I will examine my values and beliefs about the PEPP&ER Framework based on the analysis of the findings in the implementation of the framework. Values are the starting point for Action Research. McNiff (2002) in her “Action Research for Professional Development” booklet gives the reason as follows:

Action Research begins with values. As a reflective practitioner you need to be aware of what drives your life and work, so you can be clear about what you are doing and why you are doing it. You might need to spend time clarifying for yourself the kinds of values and commitments you hold. This would be a firm starting point for your action enquiry.”

I value both the organizational goal to promote an environment for continual learning, improvement and innovation and in particular I value the opportunities that teachers have been given to develop themselves professionally through various avenues within the organization. In connection to my work on the PEPP&ER Framework, I value the fact that we have developed a workable approach to enable our teachers to grow as enquiring and reflective practitioners and one day be recognised by global educational communities as professionals in their own right.

Concern and Enquiries

My main concern based on my values and beliefs is that, with a framework and that spells out so clearly the activities for each stage of the planning, exploring, practicing and performing, members of ILCs may be distracted by the process and neglect to practice the habits of enquiry and reflection. Because of this concern, I started to ask myself whether current efforts can be sustained and in what direction should it grow? Can we set some goals for the future to bring teachers deeper into the application of the framework? How do we show our teachers the way to grow wings instead of depending on structures and new initiatives from ABLE to enable them to soar. What good things do we have from the framework that we can work to further our goals of enabling teachers to become lifelong and independent learners? What can I and my staff do in terms our own professional development so that the concern raised can be addressed well?

Based on my values and beliefs, here are 2 ways that I imagine will take the PEPP&ER Framework to the next higher level of its development:

- Developing the quality and practice of Enquiry and Reflection and Critical Friendships in guiding individuals or ILCs through the application of the framework; and
- Introducing Action Research through the PEPP&ER Framework.

Developing the Quality and Practice of Enquiry and Reflection

The PEPP&ER Framework was intended to provide a more “teacher-friendly” alternative for teachers to come together and focus on teaching practices to create tangible or intangible outcomes that impact on the learning of students. It has been designed to facilitate the development of enquiry and reflection to the point when they are internalized as habits of lifelong learning. Although the PEPP&ER process is capable of taking teachers to that level of experience, it was not fully exploited in practice by all ILCs. Feedback and monitoring of a few of the ILCs indicated that there might have been an over-emphasis on the “how-to” aspect of the framework with not much time spent on sharing of values and beliefs, enquiry and reflection and building critical friendships.

Thus in the next phase of my learning journey I will need to address the concern about the PEPP&ER Framework becoming a mere set of procedures for working in groups. I plan to work on re-design the conduct of the workshop to move away from emphasizing the structures but to provide the environment and opportunity for participants to fully grasp the concept of enquiry, reflection, challenging assumptions, dialogue and critical friendship. This can be carried out by re-examining the

training workshops for ILC leaders to re-design the delivery and to focus more on enquiry and reflection rather than the current emphasis on the workings of the framework.

Another area to look into for future improvement would be in the development of guides in the form paper or electronic documents that would enable leaders and members of ILCs to facilitate enquiry and reflection as a conscious effort. My staff is currently working on developing an enquiry guide for ILC leaders as part of her action research project in which I am her critical friend. This guide is being developed as part of her action research project to examine her own effectiveness as a staff of ABLE who is providing support and assistance to three ILCs. Her project will be presented in a paper at the BERA (British Educational Research Association) Conference 2004 in September. Another staff of mine will be exploring the use of Technology in her action research project to promote enquiry and reflection amongst teachers in a mentoring relationship. The general direction we are embarking on is to bring out the Action Research nature of the PEPP&ER Framework in our continuing journey to promote continual learning and improvement in ITE.

Introduction of Action Research through the PEPP&ER Framework

Although the PEPP&ER Framework was conceptualized based on Action Research, It was not introduced as an Action Research approach but only as a new approach for teachers to improve on their existing practices as a group. Now that the PEPP&ER Framework has become part of the organizational journey towards excellence the next step would be to enable our teachers to progress towards greater professionalism as teachers. This can be done by developing the PEPP&ER Framework for Action Research in ITE so that our teachers whether as individuals or collaborating in ILCs can have their efforts and practices validated and acknowledged by a larger community of educators beyond ITE in future.

In promoting the value and practices of Action Research, our teachers will be given a new perspective to see themselves as professionals with responsibilities to continually query the effectiveness of their actions rather than just teachers going about their job from day to day. The belief is that through Action Research, teachers will be able to strive for more intense and greater improvements to their professional lives and those of their students.

The foundation for developing the PEPP&ER Framework for Action Research has been laid. The PEPP&ER Framework has been presented at a Teachers' Conference in Phoenix, USA (Leong & Tan, 2003). Our paper was subject to a peer review before acceptance and our presentation was a good indication that we had produced work that stood up to the scrutiny of our peers overseas. This work is referred to in Chapter 8 of the International Handbook of Self-Study of Teaching and Teacher Education Practices (Loughran et al, 2004, pp.871-903) by Jack Whitehead that is titled: "What Counts as Evidence in the Self-studies of Teacher Education Practices".

Like other educational institutions that have formalized Action Research in their teacher training and development programs, we have already introduced a new module titled: "Action Research for the Professional Development of Teachers" to ITE's teacher-training program, the Pedagogical Certificate in Technical Education (PCTE). The field-teaching component of this program comprises a 12-month mentoring period for the new teacher is also structured based on the PEPP&ER Framework to ensure that there is continuity in the practice of enquiry and reflection till they become habitual amongst our teachers.

Conclusion

The consolidation of the work done in this paper has provided me with the opportunity for intense self-enquiry and reflection on the effectiveness and potentials of this framework in the professional development of ITE teachers. The end of this paper is the beginning of a new learning journey for me. There are valuable insights and realizations that will serve as guiding light for me in my own professional development in ABLE.

Firstly, I realize that I cannot isolate myself from the world community of teacher educators and researchers and it has made me value much more the importance of documenting my work and subject it to public critique and validation. I realize that educators elsewhere have done so much through Action Research in support and development of teachers that I feel that there is much for me to catch up on in this area. I feel very drawn in to all this work that teacher educators and teachers are engaged in that are documented in educational journals and as internet resources for teachers' professional development especially the extensive work that Jack Whitehead is doing with his post graduate students and his influence on educators in UK, US, Canada, Australia, Japan and even in China. All one needs to do is to access his website at <http://www.actionresearch.net> to view the achievements and work on Action Research at universities and colleges on a global scale.

Secondly, I realize that what is gathering momentum in propelling me forward from the PEPP&ER Framework to Action Research is what I think must have powered Jack's work with action research that I never really fully understood till now. It is a return to my values as a teacher educator and my belief in the goodness of our teachers as exemplified by our very best ITE Teacher winners, our mentors and the humble teachers who do not claim to have any special ways to motivate students except love, care and concern. From here, I trace my roots in Action Research back to Jack Whitehead when I was his student at the University of Bath pursuing a Masters-in-Education degree and wish to pick up where I left off more than 10 years ago. Last but not least, I realize that values do not die. They may have been lost sight of temporarily but they can come alive again through continuous cycles of enquiry and reflection.

This paper is dedicated to Jack Whitehead whose passion and
lifelong commitment to Action Research has been the inspiration
for this writing.

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