

What makes 'educational research' educational?

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Abstract

Focus

The focus is on a distinction between education and educational research that can be used to address the question, 'What makes 'educational research' educational? The focus is related to a call by Whitty (2005) in his Presidential Address to BERA:

One problem with this distinction between 'education research' as the broad term and 'educational research' as the narrower field of work specifically geared to the improvement of policy and practice is that it would mean that BERA, as the British Educational Research Association would have to change its name or be seen as only involved with the latter.

(Whitty, 2005, p. 172-173)

This is related to a similar call by the Executive Director of the American Educational Research Association, to editors of AERA publications, to use education research rather than educational research.

In answering his question, 'Why educational research has been so uneducational?' Torbert (1981) makes the case for a new model of social science based on collaborative inquiry. In answering the question what makes 'educational research' educational, this paper presents a different approach to one grounded in social science. It presents a Living Theory approach to educational inquiry that includes making public the embodied expression of relationally dynamic values of professional educators as the distinguishing qualities of educational research in explanations of educational influences in learning. The values are used as explanatory principles. The focus of this approach is on the contribution of living-educational-theories to enhancing research-based teacher professionalism in what makes educational research educational. It highlights the importance of including recognition and support for the generation of living-educational-theories by professional educators in educational policies, that is, policies that are educational.

These relationally dynamic values that distinguish educational research, from other forms of research including education research, will be related to the 2019 Presidential Address to the British Educational Research Association by Dominic Wyse, on 'Education and its contribution to human knowledge: reciprocal relationships between academic disciplines, policy and practice'.

Originality

The originality is focused on the nature of the educational knowledge that is being generated by educational researchers who are exploring the implications of asking, researching and answering close-to-practice (Wyse, 2018) questions of the kind, 'How do I improve what I am doing in my professional educational practice?' The originality of this educational

knowledge is focused on over 40 Living Theory doctorates, that have been legitimated by Universities around the world, between 1996-2018 for the originality of the explanations of practitioner-researchers of their educational influences in their own learning the learning of others and in the learning of the social formations that influence practice and understanding. The originality is focused on the embodied nature of the relational dynamic, unique constellation of values that each Living Theory researcher uses to explain their educational influences in learning. The originality is related to Merleau Ponty's (1945) ideas on the primacy of perception to Varela et al's (1991) ideas on the embodied mind and to Durt et al's (2017) ideas on embodiment, enaction, and culture.

Rigour

The rigour of the educational research is ensured by applying Winter's (1989) six principles of reflective and dialectical critique, risk, plural structure, multiple resource and theory practice transformation. The principles are applied in Validation Groups of between 3-8 people who also seek to enhance the validity of the explanations by applying 4 questions derived from Habermas' (1976) criteria for ensuring social validity: comprehensibility; evidence to justify assertions; sociocultural and sociohistorical understandings of these influences in practice and understanding; authenticity in the sense that the values used by the researcher to distinguish their research as educational are being lived as fully as possible.

The rigour of the research, in clarifying and communication the embodied expressions of the meanings of the ontological values used by the researcher to distinguish their research as educational, is also focused on the use of digital, visual data from educational practice with the methods of empathetic validity (Dadds, 2008) and empathetic resonance (Sardello, 2008).

Significance

The significance for educational theory is:

- i) the idea that individual practitioner-researchers can generate their own living-educational-theories as explanations for their educational influences in learning.
- ii) the clarification of embodied expressions of the ontological values of educational researchers that can distinguish research as educational, using digital visual data of practice and using the creative methods of empathetic resonance and empathetic validity.
- iii) the use of these meanings as explanatory principles in explanations of educational influence in learning.

The significance for educational policy is demonstrated in relation to making a clear distinction between the concepts of educational research and education research. The focus of many education researchers on issues such as social justice can be included within what makes educational research, educational in an educational policy. In distinguishing a policy as educational it is necessary to include the recognition and support for the generation and sharing of the living-educational-theories of professional educators.

Focus

The focus is answering the question what makes ‘educational research’ educational. The answer to this question includes a Living Theory approach to educational inquiry that includes relationally dynamic values as distinguishing qualities of educational research. The values are used as explanatory principles in explanations of educational influences in learning.

This focus is contextualized with ideas in three keynotes, presented at the Association of Teacher Education in Europe Conference 13-16 August 2019 at Bath Spa University with the theme, ‘Teacher Education in a Changing Global Context’, by Eloff (2019), Menter (2019) and Snoek (2019). Following this contextualization the idea that what makes educational research educational are explanations of educational influences in learning with values that carry hope for the flourishing of humanity.

Eloff’s (2019) keynote focused on ‘Creating Ecosystems of Opportunity: How Teacher Education Can Support Sustainable Development’. Eloff positioned teacher education as key to addressing inequality and to achieve parity of educational outcomes for all. Eloff analysed three emerging networks as contributing to the creation of ecosystems of opportunity. The first was FRESH, an intersectoral framework and global partnership for promoting the educational success, health, and development of school-age children and adolescents through schools. This was launched in Dakar in April 2000, by UNESCO, WHO and the World Bank during the World Education Forum. The second as the African Deans of Education Forum (ADEF). This was launched in Nairobi in 2013 to bring an academic voice to international teacher education discourses. The third was the emerging Global Network of Deans of Education (GNDE). This has been established to facilitate cooperation and exchanges of information and knowledge among national and regional associations of deans of education as well as to convey the views of teacher educators to various global initiatives and UN agencies. (p. 23).

Whilst understanding the importance of such ecosystems of opportunity in supporting sustainable development with a focus on addressing inequality, the section below, on the contribution of research-based teacher professionalism in what makes educational research educational, highlights the importance of teachers and teacher educators researching their own practice as they explore the educational implications of asking, researching and answering questions of the kind, ‘How do I improve what I am doing in my professional practice?’ to enhance the global professional knowledge-base of education. In expressing a responsibility of educators in terms of addressing educational needs in the learning of pupils and students this is not to deny the importance of addressing inequalities. It is to stress differences in engaging with ecologies of opportunities in the wider social networks identified by Eloff and expressing the responsibilities of the educator in engaging with educational influences in the learning of pupils and students.

Menter’s (2019) keynote focused on Whitty’s work as a sociologist of the curriculum, of teacher education and of education policy to make the point that we need a carefully planned research agenda for teacher education. Menter explained that such an agenda needs elements at the local level, the national level and at the international and global levels and emphasised that there is much to be gained from comparative studies. He also emphasised that the struggle for social justice in and through education and teacher education must be; collective, based on alliances; based on evidence gathered through careful research; politically astute and strategic in approach:

But above all it must be based on a deep commitment to the human spirit, to the power of human agency and to a profound commitment to a professionalism in teaching and research which is based on those values. We all have a part to play in enacting such values and pursuing these goals, both in our personal and in our professional lives.

Menter concluded his keynote with the words of C. Wright Mills that emphasised the importance of social science in Menter's thinking and research:

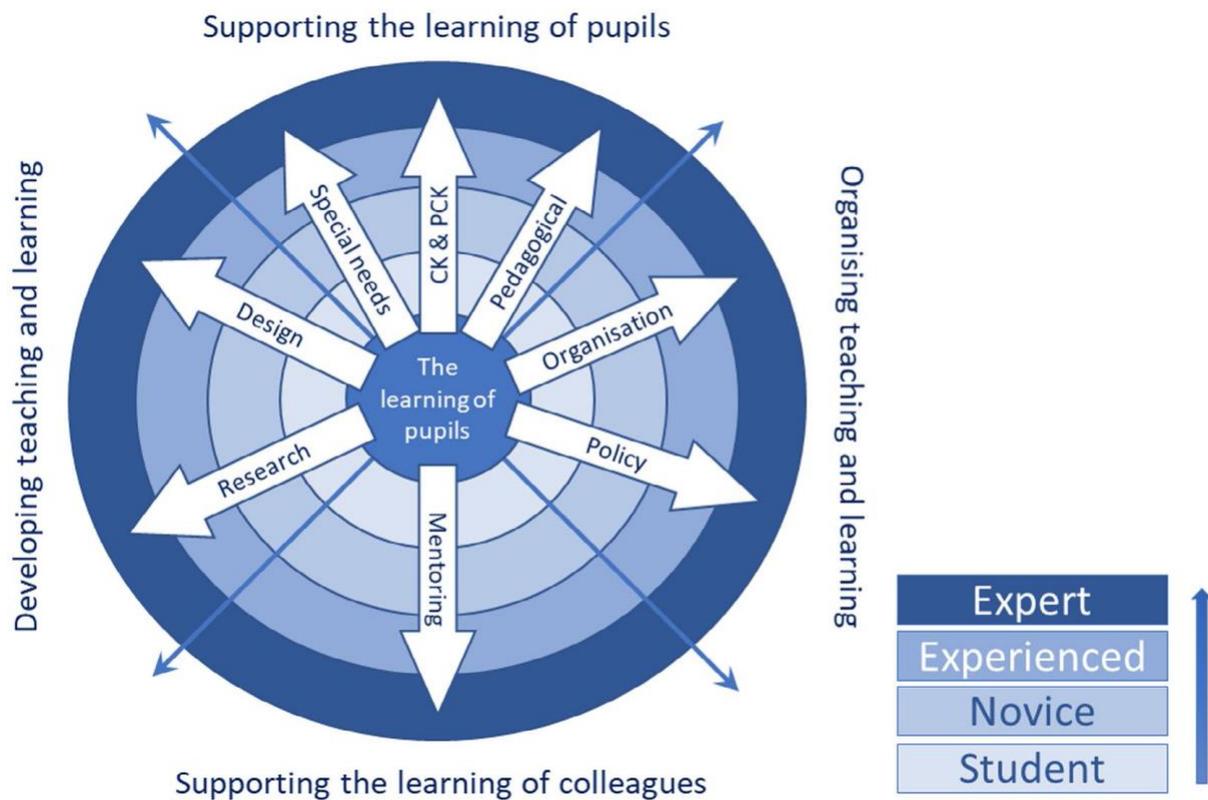
... by addressing ourselves to issues and to troubles, and formulating them as problems of social science, we stand the best chance, I believe the only chance, to make reason democratically relevant to human affairs in a free society, and so realize the classic values that underlie the promise of our studies. (Mills, 1959: 194)

I am supporting Menter's focus on social justice and a deep commitment to the human spirit, human agency, to a professionalism in teaching and research based on values, and the need for a carefully planned research agenda. In the section below, I focus on the contribution of research-based teacher professionalism in what makes educational research educational. This includes the importance of including in a research agenda, both a commitment to social justice and to support for enhancing professionalism. I am thinking of enhancing professionalism in terms of the knowledge-creation of educators in generating and sharing their evidence-based explanations of their educational influences in their own learning, in the learning of others and in the learning of the social formations that influence practice and understandings.

Snoek's (2019) keynote focused on 'Reframing The Teacher Profession: Teacher Quality As A Dynamic Concept And Its Implication For Teacher Education' with four reflections. The first

was that in Europe we use a rather static concept of teacher quality. The second was that this static understanding of teacher quality is partly due to the structure of the profession with isolated teachers in classrooms. The third was that this structure prevents teachers from having clear career perspectives, makes the profession unattractive for young people and creates problems for teachers to stay passionate in their profession. The fourth was that this static understanding of teacher quality, in teacher education, limits its focus to initial teacher education. Snoek stated that a much more important focus should be on the contribution of faculties and schools of education on the development of teachers during their careers. Snoek believes that teacher education needs a more dynamic understanding of the purpose of teacher education in terms of teacher development/teacher careers.

With his colleagues Snoek et al (2019) developed the following framework to support teacher growth and teachers' career development.



Opportunities for teacher development and teacher careers. *Source:* Snoek et al., 2018

Snoek (2019) explained that this framework has been used as a starting point for creating a shared language and understanding of the teacher profession and as a catalyst for dialogue between teachers and school leaders on professional growth. He claimed that it can contribute to a stronger common understanding of being a teacher as a dynamic profession and create a shared vocabulary to discuss and elaborate opportunities. He argued that the strength of the framework can be explained by the way it acts as a boundary object, inspiring mutual learning and dialogue between different activity systems (of teachers, school leaders and teacher educators). He also acknowledges that the framework has yet to be formally evaluated in stating the belief, with his colleagues that:

We believe that to strengthen the teacher profession, it is essential to have a wider understanding of teachers' work where teachers are experts in the teaching and learning of pupils and students, but also engage collaboratively in developing new pedagogies, organising teaching and learning and supporting and educating colleagues.

Whilst agreeing with Snoek that it is essential to have a wider understanding of teacher's work and to engage collaboratively in the way Snoek suggests, the section below offers an approach with a different emphasis. It emphasises the contribution of research-based teacher professionalism in what makes educational research educational. The approach is focused on a form of research-based professionalism in which teachers and teacher educators contribute to the global professional knowledge-base of education with their explanations of their educational influences in their own learning, in the learning of others and in the learning of the social formations that influence their practice and understandings. I think it worth stressing that Snoek acknowledges that the above framework has yet to be formally

evaluated. In contrast to this the following ideas, on research-based professionalism, have been formally evaluated as original contributions to educational knowledge.

The contribution of research-based teacher professionalism in what makes educational research educational.

Some 30 years ago two of my papers focused on research-based professionalism. The first on *How do we Improve Research-based Professionalism in Education?-A question which includes action research, educational theory and the politics of educational knowledge* (Whitehead, 1989a) was the 1988 Presidential Address to the British Educational Research Association. It highlighted the importance of a view of professional that included teachers as knowledge-creators in contributing to the educational knowledge-base of education. Researchers. The second, on *Creating a living educational theory from questions of the kind, "How do I improve my practice?"* (Whitehead, 1989b) focused on the idea that teacher-researchers could contribute to the educational knowledge-base as knowledge creators through generating and sharing their explanations of their educational influences in their own learning and in the learning of others.

The addition I wish to make, to the ideas in the above keynotes to ATEE, is focused on the explanations that teachers and teacher-educators are generating of their educational influences in their own learning, in the learning of others and in the learning of social formations. Some of these additions have already been presented in conferences of the American Educational Research Association (AERA) and to the Self-Study of Teacher Education Practices (S-STEP) Conferences. The additions include a contribution to a 1995 issue of *Teacher Education Quarterly on Self-Study and Living Educational Theory*, described in a 2014 presentation to an S-STEP conference:

The context includes data from over 30 living-educational-theory doctoral theses I supervised between 1993-2013 as explanations of educational influence. The explanations are contextualized within sociohistorical and sociocultural influences on educational researchers. The explanations include their constraining influences whilst offering possibilities for transcending these influences in self-study contributions to a history of S-STEP with the generation of a new educational humanism (Hamilton & Zufiaurre, 2014). Each living-theory researcher includes evaluations of past learning and an intention to improve practice in the future in ways that are not yet realized in practice (Whitehead, 1999, Abstract). In 1995 the *Teacher Education Quarterly* (TEQ) published an issue on *Self-Study and Living Educational Theory* with contributions from Pinnegar and Russell (1995); Guilfoyle (1995); Hamilton (1995); Placier (1995); Pinnegar (1995); Russell (1995); Whitehead, (1995). Pinnegar and Russell pointed out: ‘The issue as a whole expresses the documentation of living educational theory (Whitehead, 1993). Over the past five years, the seven of us have worked collectively to research out own practices and to examine what a living educational theory might be’ (p.9). In my responses to the contributions in *Teacher Education Quarterly* (Whitehead, 1995) I focused on the importance of a teacher educator explaining his or her educational influence in the learning of students as well as their own. Because the language and logic of traditional, propositional forms of academic discourse, eliminate contradictions from correct thought, and can mask the dialogical nature of educational influences, my contributions to a history of S-STEP include a focus on overcoming this elimination and masking (Whitehead, 1995, p. 27).

The additions include:

There are many different approaches to educational research. There are educational researchers who see themselves as social scientists using the methods of social science in educational contexts. There are philosophers, sociologists, psychologists, historians and management theorists all contributing to journals of educational research. There are others like ourselves who, through researching their own educational practices as teachers and researchers, hope to make contributions to educational knowledge and educational theory. When educational researchers make a claim to know something about their subject, education, they are making a claim to educational knowledge. Those educational researchers who, like ourselves, still believe in the importance of testing the validity of a claim to knowledge, do need to know the unit of appraisal and the standards of judgement which can be used to test the validity of such a claim. In communicating an educational epistemology of practice we intend to show a dialogical form of representation for an educational enquiry of the kind, "How can I help you to improve your learning?", and a dialectical approach to explicating and using educational standards of judgement for testing a claim to educational knowledge. (Laidlaw & Whitehead, 1995, p.1)

The additions also include similar self-study contributions to a history of S-STEP (Whitehead & Delong, 2014).

I see the most significant contribution of research-based teacher professionalism, in what makes educational research educational, in creating a profession of educators with the living-theories of Master and Doctor Educators (Whitehead & Huxtable, 2016). Huxtable (2019) has developed these ideas further in her work on close to educational practice research in which she addresses two related issues:

- i) The implications of clarifying the meaning and purpose of 'education' for researchers who are investigating and evaluating educational practice to improve education.
- ii) The contribution that professional educational-practitioners can make to improve the educational quality of education globally by researching their practice to generate and make public accounts of their living-educational-theories.

Originality

The originality is focused on the nature of the educational knowledge that is being generated by educational researchers who are exploring the implications of asking, researching and answering close-to-practice (Wyse, 2018) questions of the kind, 'How do I improve what I am doing in my professional educational practice?' The originality of this educational knowledge is focused on over 40 Living Theory doctorates, that have been legitimated by Universities around the world, between 1996-2018 for the originality of the explanations of practitioner-researchers of their educational influences in their own learning the learning of others and in the learning of the social formations that influence practice and understanding.

Part of the originality of the above ideas is focused on the meaning and emphasis on educational influences in learning in explanations of educational influences in learning. In terms of the importance of 'influence' Said points out, drawing on Valery's writings in the "Letter About Mallarme":

No word comes easier or oftener to the critic's pen than the word influence, and no vaguer notion can be found among all the vague notions that compose the phantom armory of aesthetics. Yet there is nothing in the critical field that should be of greater philosophical interest or prove more rewarding to analysis than the progressive modification of one mind by the work of another. (Said, 1997, p.15)

On finishing my first degree in physical sciences I held a positivist view of knowledge in the sense of a theory being a set of determinate relations between a set of variables in terms of which a fairly extensive set of empirically verifiable regularities could be explained. I was persuaded of the importance of controlled experimental designs for clarifying the causal relationships between variables and the usefulness of statistical analysis in using ratio and interval data for determining the probability of one variable having a causal influence on another. I used these methods in research for my master's degree in the psychology of education in 1972 on 'A preliminary analysis of the processes through which adolescents acquire scientific understandings'. Whilst carrying out this research in the science department of Erkenwald Comprehensive School in London, where I was Head of Science, I came to the realisation that the disciplines approach to educational theory and the methodology I was using in my research were inappropriate as ways of explaining my educational influences in my pupils learning, that could help me to improve my practice and educational influences. I came to this recognition because none of the existing theories I studied either individually or in any combination could produce, through a process of derivation, a valid explanation of my educational influences in my own learning or in the learning of my pupils.

Explaining my educational influences in learning includes the understanding that whatever I do as an educator and teacher with my students does not have a causal effect in the learning. My understanding of an educational influence in an individual's learning includes the idea that what is being done by the educator or teacher, involves an intentional response from a learner. This is linked to early ideas from the philosophy of education with criteria for distinguishing education as involving some degree of wittingness on the part of the learner (Peters, 1966).

In my use of educational influences in learning, I use the following meaning of educational. This meaning can be distinguished from the criteria of education I used in my early professional life as involved the transmission of what is worthwhile to those committed to it, in a morally acceptable way with some degree of wittingness on the part of the learner. I identified the transmission of what is worthwhile as the knowledge, skills and understandings embedded in the given curriculum in schools, colleges and universities. I also work with the idea of a living curriculum that is related to Biesta's (2006) idea that we come into the world as unique individuals through the ways in which we respond responsibly to what and who is other.

"The main problem with the new language of learning is that it has facilitated a redescription of the process of education in terms of an economic transaction, that is, a transaction in which (1) the learner is the (potential) consumer, the one

who has certain “needs”, in which (2) the teacher, the educator, or the educational institution is seen as the provider, that is, the one who is there to meet the needs of the learner, and where (3) education itself becomes a commodity – a “thing” – to be provided or delivered by the teacher or educational institution and to be consumed by the learner.” (pp. 19, 20)

Biesta argues for an approach that focuses on the ways in which human beings as unique, singular individuals come into the world through the ways in which we take up our responsibility for the otherness of the others. Biesta argues that the educational responsibility is not only a responsibility for the coming into the world of unique and singular beings; it is also a responsibility for the world as a world of plurality (p. 117) and difference. Biesta articulates a way to understand education that itself responds to the challenges we are faced with today, including the disappearance of a language of education in the age of learning. (p. 118)

I am arguing that a professional responsibility of a teacher and teacher educator includes making contributions to the professional knowledge-base of education, through their practitioner-research. These contributions are in the form of explanations (living-theories) of their educational influences in their own learning, in the learning of others and in the learning of social formations with values that carry hope for the flourishing of humanity.

Part of the originality of this presentation is in communicating the meanings of relational dynamic values, with digital visual data as evidence, as explanatory principles in explanations of educational influences in learning. I do not want to underestimate the complexity of this task. The complexity includes the use of both lexical definitions of meaning using words and ostensive expressions of meaning using a combination of words and digital visual data. Part of the complexity may be understood through my use of Mounter’s understanding of ~i~we~I~us in community:

My definition of educational research takes both aspects from Whitehead (2008) and Huxtable (2016) but I incorporate ‘ ~i~we~I~us~ in community’. ‘~i~we~I~us~ in community’ defines the flow of energy and developing metacognitive relationships. The understanding of self in relation to others, caring and adding to something bigger than yourself, the desire to make a difference whether by developing research skills, practice, clarity of embodied values, living-contradictions, combining the movement and flow of energy between the given self (curriculum, professional practice skills and knowledge, teaching standards, targets) and the living self (values, beliefs, passions, strengths, self, actions, place in and of the world). This leads to personal growth and transformation and community growth and transformation.

The tilde ~ represents the ebb and flow of energy, conversational learning and challenge, questioning and validation at differing points. This is the flow of energy that leads to reflection, agency and metacognition. The tilde is before and after the sentence to show this energy and community being part of something bigger than self or the group, but being knowledge creators, offering as a gift to make a difference. The lower case i, is offered by Huxtable and Whitehead (2017) as the relational i in community. This space we represent as i, is also the space of reflection and learning about self, what matters to me, who am I? What do I want my place in the world to be? The upper case I, is the self we offer the world, the self I am, the embodied values

I demonstrate, the talents I share, the opinions I voice, the ethics I live by. ~i~we shows how the developing i of each person is in community together voiced as we. The inward view of the community. In ~i~we~I~ we see the collective of we, the flow of energy within the community of each individual i , offering, questioning, challenging, growing in self and helping others to grow and transform too. The learning and metacognition through that flow of ~i~we~I~ is then seen by others and understanding of self we offer the world as I. ~us~ is vitally important and is the sense of community we have, the selves we offer beyond our community to add to the flourishing of humanity (Whitehead, 2017), Frankl’s “spark in life”, our offer of joining our growth and transformation (Mounter, 2019).

Part of the originality and complexity includes the communication of meanings of ‘the tilde ~ represents the ebb and flow of energy’. Valsilyuk (1991) points to the problem of conceptualising relationships between energy and motivation, energy and meaning, energy and value:

Equally problematic are the conceptual links between energy and motivation, energy and meaning, energy and value although it is obvious that in fact there are certain links: we know how ‘energetically’ a person can act when positively motivated, we know that the meaningfulness of a project lends additional strength to the people engaged in it, but we have very little idea of how to link up into one whole the physiological theory of activation, the psychology of motivation, and the ideas of energy which have been elaborated mainly in the field of physics.” (pp.63-64)

I now want to show you, with the help of digital visual data, my meaning of a flow of life-affirming energy. This energy was expressed in a doctoral supervision session with Jacqueline DeLong that was focused on improving the Abstract before the successful submission of her thesis. I am claiming that such flows of energy are necessary in communicating meanings of values as explanatory principles in explanations of educational influences in learning.

1:25 minute video at 042-044 seconds



<https://www.youtube.com/watch?v=w2kdOfRKfYs>

I also use the methods of empathetic resonance and empathetic validity to develop a shared understanding of relationally dynamic meanings of expressions of life-affirming energy with values. I first encountered the idea of empathetic resonance in the writings of Sardello (2008). For Sardello, *empathetic resonance*, is the resonance of the individual soul coming

into resonance with the Soul of the World (p. 13). I am using *empathetic resonance* to communicate a feeling of the immediate presence of the other in communicating the living values that the other experiences as giving meaning and purpose to their life. In the above video I experience a shared expression of life-affirming energy with values that I experience and understand as carrying hope for the flourishing of humanity. In another session at this conference Delong expresses her relationally dynamic values of a dialogical way of being, a culture of inquiry and being loved into learning. I have checked with Delong that we both experience the expression of these values in the above video.

I also use the method of empathetic validity. For Dadds (2009) this is the potential of practitioner research, in its processes and outcomes, to transform the emotional dispositions of people towards each other, such that greater empathy and regard are created. Dadds distinguishes between internal empathetic validity as that which changes the practitioner researcher and research beneficiaries and external empathetic validity as that which influences audiences with whom the practitioner research is shared. (p. 279).

I have checked with Delong the internal empathetic validity of my claim that the conversations, such as that in the above video, have influenced our understandings of how to represent and communicate flows of life-affirming energy and the meanings of values such as humour, being loved into learning and dialogical ways of being as explanatory principles in explanations of educational influence in learning.

I can only know more about the external empathetic validity if you show me, through time, that this presentation has generated greater empathy and regard for the use of digital visual data, empathetic resonance and empathetic validity in your own explanations of educational influences in your own learning and in the learning of others. I am thinking of explanations in which you use the relational dynamic of your unique constellation of values as the explanatory principles in your explanations of your educational influences in learning.

Part of the originality is related to Merleau Ponty's (1945) ideas on the primacy of perception to Varela et al's (1991) ideas on the embodied mind and to Durt et al's (2017) ideas on embodiment, enaction, and culture. This originality is in the creation of living-theory-methodologies that are involved in the generation of living-educational-theories and their legitimation in the Academy. The originality is consistent with the above ideas and goes beyond these ideas in the demonstration of how the embodied knowledges of professional educator can be made public and contribute to the professional knowledge-base of education, in the living-educational-theories of professional educators. The explanations of these living-educational-theories are consistent with the ideas on the interplay of embodiment enaction and culture in the use of the relationally dynamic, and unique constellation of values that are used as explanatory principles within the explanations of educational influences in learning.

In this process of answering my question, 'What makes educational research educational?' I draw on the following ideas on rigour and validity.

Rigour and validity

My interest in rigour and validity goes back to my first degree in physical sciences where the objectivity of data collection and analysis was prioritised. Whilst recognising that aspects of my epistemology as a physical scientist, such as randomised controlled experiments to define determinate relationships between variables, were not appropriate to my enquiry, 'How do I

improve what I am doing in my professional practice as an educator?', I have retained a commitment to objectivity as understood by Karl Popper as a Philosopher of Science, with his acknowledgement of inter-subjective testing and the mutual rational control by critical discussion:

Now I hold that scientific theories are never fully justifiable or verifiable, but that they are nevertheless testable. I shall therefore say that objectivity of scientific statements lies in the fact that they can be inter-subjectively tested. The word 'subjective' is applied by Kant to our feelings of conviction (of varying degrees)..... I have since generalized this formulation; for inter-subjective *testing* is merely a very important aspect of the more general idea of inter-subjective *criticism*, or in other words, of the idea of mutual rational control by critical discussion. (Popper, 1975, p.44)

In ensuring the validity of educational research I advocate the use of validation groups of between 3-8 peers who will respond to draft explanations of educational influence with answers to four questions that I derived from the 4 criteria proposed by Habermas (1976) in his work on communication and the evolution of society. These four questions are designed to strengthen the validity of the explanation through the mutual rational control of critical discussion:

- i) How could I improve the comprehensibility of my explanation?
- ii) How could I strengthen the evidence I use to justify the claims I make?
- iii) How could I deepen and extend my socio-historical and socio-cultural understandings of their influence in my practice and explanation?
- iv) How could I enhance the authenticity of my explanation in the sense of living as fully as possible the ontological values I claim to use in giving meaning and purpose to my life?

The rigour of educational research can be enhanced by applying Winter's (1989) six principles of reflexive and dialectical critique, plural structure, multiple resource, risk and theory practice transformation to data collection and analysis. The way in which this can be done has been demonstrated by Kok (1995, pp. 76-82).

In explaining educational influences in learning I use the six principles for enhancing rigour in the following ways. I distinguish being reflective from being reflexive in the sense that reflexivity involves explicating the explanatory principles in my explanation of educational influence in learning (Whitehead, 2014). The reason I employ dialectical critique is because of my recognition and history of my 'I' being a living contradiction in my enquiries, 'How do I improve what I am doing in my professional practice?', with contradiction being the nucleus of dialectics (Ilyenkov, 1977, p. 313). My dialectical critiques are focused on showing my actions in seeking to resolve my experience of contradiction and explaining my educational influences in learning in this process. My explanations of educational influence have a plural structure in the sense that they include traditional engagements with relevant literature and with drawing insights from this literature in my own living-educational-theory. The living logic of the explanations has a plural structure in using relationally dynamic values as explanatory principles. The values are clarified in the course of their emergence in practice. This process can include the use of action-reflection cycles within the plural structure as well as the critical dialogues within validation groups to enhance the validity of the explanations.

The explanations of educational influence involve multiple resource in drawing insights not only from the traditional academic literature but also from the living-educational-theories of others, from the freely available Living Theory archive (Whitehead 2019). The explanations draw on digital visual data as evidence in explanations of educational influence using empathetic resonance and validity. The multiple resource include critical responses from validation groups to enhance the validity and rigour of the explanations.

The explanations involve risk in the sense that in seeking to live one's ontological values as fully as possible individuals often encounter personal and social constraints. Being open to and responding to experiencing oneself as a living contradiction can be painful in risking one's ontological security. They involve risk in that global neo-liberal economic and political agendas can constrain the living of one's ontological values as fully as possible. MacDonald (1984, p. 5) stressed the importance of creative compliance in facing oppressive social forces. I would also stress the importance of prudence in facing and responding to the risk of responding to such forces in the workplace as these could be a threat to one's employment (Whitehead, 1993).

The explanations involve theory-practice transformations in the sense that each living-educational-theory is a contribution to the professional knowledge-base of education. Each living-theory contributes to theory-practice transformation in the sense of offering a transformative perspective on the idea that theory-practice is understood as the application of traditional conceptual framework(s) to derive an explanation of practice. The transformation is in the understanding that a living-educational-theory is generated by an individual, as an explanation of educational influence in learning, rather than being 'derived' from an existing conceptual framework.

Significance

The significance for educational theory is:

- i) the idea that individual practitioner-researchers can generate their own living-educational-theories as explanations for their educational influences in learning.
- ii) the clarification of embodied expressions of the ontological values of educational researchers that can distinguish research as educational, using digital visual data of practice and using the creative methods of empathetic resonance and empathetic validity.
- iii) the use of these meanings as explanatory principles in explanations of educational influence in learning.

The educational significance for educational policy is in making a clear distinction between the concepts of educational research and education research in what makes educational research educational. I make a clear distinction between the theoretical explanatory frameworks in the philosophy, psychology, sociology, history, management, economics and other forms and fields of education, and the explanations generated by educational practitioners that explain their educational influences in their own learning, the learning of others and the learning of social formations. So, for me, what makes educational research educational includes:

- i) the idea that individual practitioner-researchers can generate their own living-educational-theories as explanations for their educational influences in learning.
- ii) the clarification of embodied expressions of the relationally dynamic, energy-flowing ontological values of educational researchers that can distinguish research as educational, using digital visual data of practice and using the creative methods of empathetic resonance and empathetic validity. The values that distinguish the learning as educational are those that carry hope for the flourishing of humanity.
- iii) the use of these meanings of relational dynamic values as explanatory principles in explanations of educational influence in learning.

The significance for educational policy is that the policies should show how the clear distinction between the concepts of educational research and education research can acknowledge the value of the emphasis placed by many education researchers on social justice in the development of policy.

The educational significance of this paper for educational policy is to stress the importance of including support for educational practitioners to generate and share their explanations of their educational influences in their own learning in the learning of others and in the learning of the social formations that influence their explanations and practice. These explanations include the relationally dynamic, ontological and unique constellation of values that the individual uses to give meaning and purpose to their life and to which they hold themselves accountable for living as fully as they can in carrying hope for the flourishing of humanity within their educational practice.

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