

Huxtable, Marie and Whitehead, Jack ORCID: <https://orcid.org/0000-0002-9644-0785> (2022) Enhancing Research Literacy for Educators: A Living Educational Theory Research Approach. In: Boyd, Pete, Szplit, Agnieszka and Zbróg, Zuzanna, (eds.) Developing Teachers' Research Literacy: International Perspectives. Wydawnictwo Libron, Kraków, pp. 271-295.

Downloaded from: <https://insight.cumbria.ac.uk/id/eprint/6395/>

Usage of any items from the University of Cumbria's institutional repository 'Insight' must conform to the following fair usage guidelines.

Any item and its associated metadata held in the University of Cumbria's institutional repository Insight (unless stated otherwise on the metadata record) may be copied, displayed or performed, and stored in line with the JISC fair dealing guidelines (available [here](#)) for educational and not-for-profit activities

provided that

- the authors, title and full bibliographic details of the item are cited clearly when any part of the work is referred to verbally or in the written form
 - a hyperlink/URL to the original Insight record of that item is included in any citations of the work
- the content is not changed in any way
- all files required for usage of the item are kept together with the main item file.

You may not

- sell any part of an item
- refer to any part of an item without citation
- amend any item or contextualise it in a way that will impugn the creator's reputation
- remove or alter the copyright statement on an item.

The full policy can be found [here](#).

Alternatively contact the University of Cumbria Repository Editor by emailing insight@cumbria.ac.uk.

Huxtable, M. & Whitehead, J. (2021) Enhancing Research Literacy for Educators: A Living Educational Theory Research Approach, in Boyd, P., Szplit, A. & Zbróg, Z. (2021) Developing Teachers' Research Literacy: International Perspective. Wydawnictwo LIBRON – Filip Lohner

CHAPTER ELEVEN

Enhancing Research Literacy for Educators: A Living Educational Theory Research Approach

MARIE HUXTABLE & JACK WHITEHEAD

University of Cumbria, UK

ABSTRACT

We extend the notion of teacher's research literacy to include skills and knowledge, which enable teachers to fulfil their professional responsibility to research their educational practice to understand, improve and explain it and to contribute to their professional knowledge-bases. Education is a values laden activity. As professional educators, teachers have a responsibility to enable their pupils/students to progress through a given curriculum and to generate and progress through the learner's evolving educational curriculum. A given curriculum is a programme of study developed by the Education organisation the teacher is working in. A person's 'evolving educational curriculum' is comprised by the lifelong programme of study they develop to improve their ability to live a satisfying, productive and worthwhile life for themselves and others. We illustrate how, as they engage in Living Educational Theory Research, teachers develop their research literacy as they realise their educational responsibilities as professional educators.

KEY WORDS: educational-practitioner research, continual professional development, Living Educational Theory Research, values-led praxis, life-enhancing energy flowing values

Introduction

In this chapter we respond to the intention of Chapter One to provoke debate by presenting an extended view of, "... the detailed knowledge and skills a teacher should demonstrate in order to be considered to be 'research literate.'" We intend to extend Boyd's ideas of research literacy and continual professional development programmes for educators, proposed in Chapter One, with a Living Educational Theory Research approach. But, why should you be interested? Developing research literacy skills takes time and effort. Adopting a Living Educational Theory Research approach to your professional development also takes a good deal of time and effort. You are very busy meeting the daily demands from the learners towards whom you have an educational responsibility. There are also demands from managers and administrators to demonstrate that you are fulfilling the responsibilities of your professional role. So, why would you want, as a professional educator, to devote time and effort to developing your research literacy and engaging in Living Educational Theory Research as part of your professional development? We believe the answer to that question lies in why you have continued being a professional educator and why you are reading this book. We believe your motivation is similar to our own. We have a passion for education. We also have a passion for developing a professional approach to contribute to improving educational practice, opportunities, experiences, relationships and knowledge.

What is the meaning and purpose of 'education' as a values-laden activity? Many have offered answers, which form the bases from which they hold professional educators to account for the efficacy of their practice. English can be a confusing language in that the same word can carry different meanings and, as Wittgenstein points out, the meanings can be influenced by their context of use (Rayner, 2014). It is therefore important teachers are clear about the context that is influencing the meanings of research that can be used to improve their practice; one of the research literacy skills Boyd identifies in Chapter One.

Eleanor Roosevelt speaking in the context of her role as 'First Lady' in 1930 USA offered her answer to the question, 'what is the meaning and purpose of education?':

What is the purpose of education? This question agitates scholars, teachers, statesmen, every group, in fact, of thoughtful men and women.

The conventional answer is the acquisition of knowledge, the reading of books, and the learning of facts. Perhaps because there are so many books and the branches of knowledge in which we can learn facts are so multitudinous today, we begin to hear more frequently that the function of education is to give children a desire to learn and to teach them how to use their minds and where to go to acquire facts when their curiosity is aroused. Even more all-embracing than this is the statement made not long ago, before a group of English headmasters, by the Archbishop of York, that "the true purpose of education is to produce citizens." (Roosevelt, 1930)

This quote connects closely with our own thinking and is written by a woman who is communicating to us from a different culture almost a century ago. It reminds us of the importance of developing research literacy skills. Skills not only to read research in order to critically and creatively engage with knowledge which exists, but also to be able write research in order to realise our professional responsibilities as educational-practitioners, professional educators and citizens. These responsibilities include contributing to a knowledgebase for the flourishing of Humanity, which transcends time and location.

As professional educators we believe it beholds us to say what meaning and purpose we give to 'education' as that forms the bases from which we hold our selves accountable to and the standards by which we judge the efficacy of our practice. The context of our view of the meaning and purpose of education is influenced by our personal histories and our ongoing collaborative work with educators. This includes locations which span the world, including Mongolia, New Zealand, India, Pakistan, Croatia, Nepal, Australia, South Africa, Ghana, Canada, Ireland, Albania and Hawaii.

We see education as a life-long process of learning to live a loving life that is satisfying, productive and worthwhile for self and others. As such we believe everyone not only can, but also has a responsibility to, engage in trying to improve their educational practice whatever their age, stage or context. As professional educators we are committed to trying to improve the educational opportunities, experiences, relationships and knowledge of those who learn with us to realise their responsibilities for themselves and towards others as 21st century citizens (Huxtable & Whithead, 2021).

To create, offer and accept knowledge of any form requires learning. By learning we mean not only learning to acquire and use the skills and

knowledge created by others. We mean learning to create and make contributions to an educational knowledgebase from which we can all benefit. Educational learning is learning that keeps connection between learning to create, value and work with knowledge of the world, and learning to create, value and work with knowledge of our selves and of our selves in and of the world. Hence the importance for professional educators to devote time and energy to developing their research literacy and that of their pupils/students.

A literate person can both read and write. In Chapter One Boyd addresses the need for teachers to develop their ability to 'read' research in education but not to 'write' educational research. By 'research in education' we are referring to research undertaken by those engaged in researching within the disciplines such as the philosophy, psychology, sociology, economics, politics and leadership of education.

We distinguish education research from educational research by the focus of educational research on generating valid, evidence-based, values-laden explanations of the educational influences of individuals in their own learning, in the learning of others and in the learning of social formations that influence practice and understandings. We highlight the importance of life-affirming and life-enhancing values in explanatory principles in the explanations of educational influences in learning. We see the focus of education research to be on research that is making contributions to the disciplines of education such as the philosophy, psychology, sociology and history of education.

We distinguish an educational practice as a practice that involves learning with values of human flourishing. We develop Boyd and White's (2017), 'Professional Inquiry: 10 steps' to show what a teacher can do to develop their research literacy by engaging in educational-practitioner research, such as Living Educational Theory Research.

We agree with Boyd (quoting Northedge), that:

...we cannot persist with models of teaching as 'knowledge transmission'... Students need practice at participating both vicariously, as listeners and readers, and generatively, as speakers and writers, so that they can develop identities as members of the knowledge community and move from peripheral forums to more active, competent engagement with the community's central debates. (Northedge, 2003a, p. 31)

We go further to argue that teachers also need practice, as part of their continual professional development, at participating as listeners and readers and generatively, as speakers and writers, in contributing to the intellectual and scholarly discourses that shape educational practice and policy.

Winch (2013) posits an answer to the question, 'What kind of occupation is teaching?' He illustrates the limited understanding of what it is to be a professional educator:

The ability to make sound professional judgments in educational contexts is central to good teaching. Teachers with a more complete understanding of their practice will create better learning opportunities in the classroom more consistently than the pure craftworker or executive technician. Such teachers will require, among other forms of understanding: a good grasp of the conceptual field of education and debates concerning its interpretation; a good grasp of the philosophical underpinnings of and debates about the foundations of the subjects that they teach; a critical understanding of the scope and limits of empirical educational research; the way in which such research can and should warrant professional judgment and a good grasp of the ethical dimension of their work. (Winch, 2013, p. 14)

We quote at length to enable you to 'see' what is missing. Winch, like many others, does not clarify what constitutes educational practice. He does not bring into focus teachers' responsibilities as *professional* educational practitioners to create and contribute their knowledge to the growth of their profession's educational knowledgebase or a global educational practitioner, research knowledgebase. We use Shulman's definition of a knowledgebase as:

...a codified or codifiable aggregation of knowledge, skill, understanding, and technology, of ethics and disposition, of collective responsibility – as well as a means for representing and communicating it. (Shulman, 1987, p. 4)

CPD at times is taken to stand for 'Continuing Professional Development' and often is taken to refer to what members of a profession are required to do to maintain their qualified status. A professional has to keep sufficiently abreast with skills and knowledge of the field of their practice. This means demonstrating that their practice meets the ethical and competency standards specified by their community of practice and the wider context,

such as the organisation for which they work. In turn these are influenced by complex ecologies, which Lee and Rochon (2010) allude to, within which an individual lives and works.

There is a difference between being a professional and being professional, as many have pointed out. The two are not necessarily synonymous but often treated as though they are. For example, Hargreaves succinctly illustrates with respect to teachers:

Ask teachers what it means to be professional and they will usually refer to two things (Helsby, 1995). First, they will talk about being professional, in terms of the quality of what they do; and of the conduct, demeanour and standards which guide it. The literature usually refers to this conception as professionalism (Englund, 1996). (Hargreaves, 2000, p. 152)

The professionalization, to which Hargreaves (*ibid*) refers, can be seen as reflecting the values of a form of society that was prevalent throughout the world in previous centuries, within which professional bodies have originated and been evolved. As the 21st century progresses it is becoming clearer that ontological and social values, the rights and responsibilities of individuals and the relationships between the individual and local and global communities, are changing. This is reflected in the evolving definition of 'professionalism' as illustrated in the changes in the definition Hoyle is reported to have made between the 1970's and the start of the 21st century:

In 1975, Hoyle defined professionalism as 'those strategies and rhetorics employed by members of an occupation in seeking to improve status, salary and conditions' (Evans, 2007). In his other work, Hoyle (2001) states that professionalism is related to the improvement in the quality of service rather than the enhancement of status. (Vijayalakshmi & Rajasekar, 2019, p. 610)

In this evolving understanding of professionalism we are advocating a shift from a representative form of democracy, where a few make decisions which others implement, to a more cooperative form of democracy. This evolution can be understood as each person accepting and expressing their responsibility for contributing to decisions and implementation which enhances the flourishing of their local communities with values of human

flourishing. This evolution is reflected in the definitions of professionalism that recognise a professional's autonomy and the associated responsibilities to:

- To hold themselves to account with respect to the ethical standards of their community of practice and to hold themselves to account with respect to the life-enhancing ontological and social values by which they judge their contribution as of value.
- To stay up to-date with the skills and knowledge of their field of practice and those necessary for them to be able to hold themselves to account for their practice.
- To extend their cognitive range and concern by critically and creatively engaging with the knowledgebase of their field of practice, to contribute it and to critically and creatively engage with it in a knowledgebase created by a global community of educational practice.
- To keep abreast with the ethical standards of their community of practice (Wenger, 2000) and contribute to the evolution of those standards in the context of a 21st century global community of educational practice within which Humanity can flourish.

Mounter (2021, private correspondence) has often pointed to the erosion and dilution of meaning of a core idea through abbreviation. For example Living Educational Theory Research, a form of practitioner self-study educational research, is at risk of being corrupted into a form of psychological study of self and therapy as a result of being abbreviated to Living Theory or LET. Similarly we want to point to the difference between **Continuing** Professional Development and **Continual** Professional Development and the implications for educational practice.

The chapter is organized as follows:

In section 1, we clarify our meaning and purpose of 'education' as a life-long, values-laden, process of learning to live a loving life that is satisfying, productive and worthwhile for self and others. This includes the implications for pupils/students' and teachers' educational development and progression. These include an establishment's given curriculum, an individual's evolving educational curriculum and the relevance of learning the skills and habits of mind associated with research literacy.

In section 2, we distinguish between the responsibilities of a teacher as a member of a profession and as a professional educational-practitioner. This includes the implications for a teacher's programme of continual professional development, which includes developing research literacy.

In section 3, we illustrate the importance of enhancing research literacy. This includes the ability to 'read' and 'write' educational research, practitioner research and other research.

In section 4, we give a brief summary of Living Educational Theory Research. This includes research literacy in a form of educational-practitioner self-study research, and offers an approach to continual professional development of teachers as educational-practitioners and professional educators.

In section 5, we provide examples of how, as they engaged in Living Educational Theory Research, teachers developed their research literacy as they realised their educational responsibilities as professional educators and educational-practitioners.

In section 6, we examine research literacy in professional development in terms of continual enquiry, leading to inquiry, leading to educational research.

The chapter concludes with suggestions of where to look for information and support should you wish to explore further a Living Educational Theory Research approach as part of your continual professional development programme; a programme, in which developing research literacy is integral to your ability to realise your educational responsibility. This responsibility includes enhancing your educational influence in the learning of your profession, the organisation for which you work and, in the learning of your pupils/students and others (including yourself) who comprise the social formation. We see this responsibility in terms of education as a values-laden practical activity that is contributing to systemic change with values of human flourishing.

1. Meaning and purpose of education and research literacy

We clarify our meaning and purpose of 'education' as a life-long, values-laden process of learning to live a loving life that is satisfying, productive and worthwhile for self and others. This includes implications for pupils/students and teachers educational development and progression through given and evolving educational curricula. In the research literature there is a well-developed language of learning but only a weakly developed language of education. Biesta (2006) points to some of the issues this raises (including some similar to those Eleanor Roosevelt spoke of in 1930):

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. (Biesta, 2006, pp. 19–20)

In explaining educational influences in learning it is necessary to be clear about the nature of the values that distinguish educational influences in learning. We focus on ‘influence’, rather than ‘impact’ because of the requirement that an individual, intentionally responds in their own learning to what is being done by an educator.

In writing this text we are aware of a difficulty in communicating, solely through printed text, the meanings of embodied expressions of values in educational practice. We have shown the differences in meaning that can be communicated through a solely printed text and a text that draws on digital visual data from educational practices (Whitehead & Huxtable, 2006a, 2006b). The difficulty can be appreciated in the difference between lexical definitions of meanings and ostensive expressions of meaning. In a lexical definition the meanings of words are defined in terms of other words. For example, the meaning of punishment can be defined lexically as the intentional infliction of pain by someone in authority on someone who has broken a rule. Foucault (1977) offers an ostensive expression of punishment at the beginning of ‘Discipline and Punish’ with the description of the punishment of a regicide. This communicates very different meanings to those in the lexical definition.

The importance of finding appropriate ways for communicating the meanings of values, as these are expressed in educational practices is, for us, at the heart of developing a research literacy in education. There is a difference between ethics and the values expressed in educational practice. The difference can be appreciated by comparing the seminal text on ‘Ethics and Education’ (Peters, 1966) and the values clarified in the course of their emergence in educational practice by Whitehead (1993) in ‘The Growth of Educational Knowledge: Creating your own living educational theories.’ In ‘Ethics and Education’, the ethics are clarified lexically in terms of consideration of interests,

respect for persons, equality, freedom, justice and the procedural principle of democracy. In 'The Growth of Educational Knowledge' the meanings of values such as academic freedom are clarified in the course of their emergence in researching an educational practice that includes the existence of 'T' as a living contradiction. The 'T' is a living contradiction in the sense of holding together the value of academic freedom and its negation. Feyerabend (1975) has emphasised the importance of recognising that the creation of a value and creation plus full understanding of the idea of the value, cannot be separated without brings a process of education to a stop:

We must expect, for example, that the idea of liberty could be made clear only by means of the very same actions, which were supposed to create liberty. Creation of a thing, and creation plus fully understanding of a correct idea of the thing, are very often parts of one and the same indivisible process and cannot be separated without bringing the process to a stop. The process itself is not guided by a well-defined programme and cannot be guided by such a programme, for it contains the conditions for the realization of all possible programmes. It is guided rather by a vague urge, by a 'passion' (Kierkegaard). The passion gives rise to specific behaviour which in turn creates the circumstances of the ideas necessary for analyzing and explaining the process, for making it 'rational'. (Feyerabend, 1975, p. 17)

We are focusing on enhancing research literacy in continual professional development programmes for educators, through a Living Educational Theory Research approach. We are stressing the importance of learning from and contributing to research literacy. This contribution includes the clarification and communication of the values-laden meanings of explanatory principles, in explanations of educational influences in learning, in the course of their generation and sharing.

2. Responsibilities to be research literate

We distinguish between the responsibilities of a teacher as a member of a profession, as a professional educational-practitioner, and the implications for a teacher's programme of continual professional development.

The Government documents lay out what qualifies someone as a member of the teaching profession in state schools in England (DES, 2016). For the

most part they detail the instructional aspect of a teacher's responsibilities and the importance of keeping their guild skills up-to-date. Hidden among the text are details related to a teacher's responsibilities as an educator. It is however the passion for education that keeps most teachers teaching in the most stress inducing contexts. Also in the text are allusions to what is expected of teachers as members of a professional educational-practitioner, community of practice.

In the previous section we identified the meaning of education as a values-laden activity and the implications for teachers accepting their educational responsibilities as educational-practitioners. Here we wish to make clearer what it means to be professional as distinct from being a member of a profession.

As a professional educational-practitioner a teacher has a responsibility to continually ask questions such as, 'Am I having an educational influence in the learning of my students?', 'Is what I am doing contributing to education or are the unintended consequences having a negative influence?', 'Am I contributing to the growth of educational knowledge, my own, that of my students, that of other members of my community of practice and that of the institution/organisation/social formation within which I am practicing? Asking such questions is a process of 'enquiry'. We use the following distinction between 'enquiry' and 'inquiry' and will not be using these words as if they are interchangeable. Most of the time questioning stops with 'enquire' – asking questions and gathering information etc which inform an often unarticulated answer. However, some questions evolve that demand a more focussed and systematic exploration – you begin to 'inquire', to systematically explore a question to answer it. And for most of the time it goes no further than this. However, there are times when as a professional you have to take the step to extend your inquiry to researching into your question to create and make public your answer – why make it public? In order to test the veracity of your answer and contribute to the knowledgebase from which we can all draw – as the saying goes, 'none of us being as smart as all of us'.

Can you go as far as 'researching' every question you have? Of course that is not possible and efforts to do the impossible are not productive. However, as a professional you have a responsibility to select a core question to not only to enquire and inquire into but also to research into to test the validity of your otherwise implicit assumptions and knowledge. You

have a responsibility to contribute what you learn to your professional knowledge-base for the benefit of all. A professional educational-practitioner has a responsibility to not only develop practice but to also develop educational praxis (Huxtable, 2012) by engaging in educational research *as* continual *professional* development. To do so a teacher needs to develop their ability to write research in order to recognise, value, test and work with knowledge emerging through their research and to create a valid account as a contribution to their professional knowledgebase. There are various understandings of 'validity'. In educational research Habermas's (1976, pp. 2–3) four criteria of social validity are often used. These criteria focus on strengthening the: comprehensibility; the evidence used to justify assertions; understanding the normative background that influences understandings; enhancing the authenticity of the communications in the sense of showing that the researcher is living the values they claim to hold as fully as possible.

Developing research literacy has to be integral to a programme for the *continual professional* development of educators, such as teachers. As professional educators teachers have to be able to read research in order to keep up to date with the skills and knowledge of their field. They also have to be able to realise their responsibility for their own practice and to contribute to the growth of the knowledgebase of their field of practice and associated disciplines. Engaging in Living Educational Theory Research, as continual *professional* development, enables an educator to realise their educational responsibilities. These include improving their educational practice and praxis in contributing to our shared endeavour of benefiting from, a world wide educational knowledgebase and associated discourses such as those of policy.

Living Educational Theory Research is a form of educational-practitioner research, whereby a practitioner realises their responsibility for their practice and contributes to the educational knowledge they create as they research their educational practice to understand, improve and explain it. In doing this they are contributing to a knowledgebase and associated discourses which bring into being a world within which Humanity flourishes. By a 'world within which Humanity flourishes' we are pointing to a world where the humanity of each of us individually and collectively can flourish and a world where our species, can flourish. We wish to stress that we are concerned with the 'flourishing' and not simply the 'survival' of our species. Humanity

can only flourish if we each accept our responsibility to live our values of human flourishing by acting locally whilst thinking globally.

Through the process of Living Educational Theory Research an educational-practitioner creates their living-educational-theory. This is a valid, values-laden explanation of their educational influence in their own learning, the learning of others and the learning of the social formations, which their educational practice is contextualised by and is intended to contribute to. The purpose of personal development in this context is not for self but to make a *contribution to systemic change, which contributes to the flourishing of Humanity*.

The process of Living Educational Theory Research encapsulates what it is to engage not only to improve educational practice. It goes further than other forms of practitioner research in contributing to enhancing educational praxis. Creating a living-educational-theory praxis is to create an account of practice and theory that are held together with life-enhancing values.

So, what are the implications for a teacher adopting a Living Educational Theory approach to their continual professional development with respect to developing their research literacy?

3. Research literacy: reading and writing research

A literate person can both read and write. Often the need for teachers to develop their ability to 'read' is highlighted but not their need to develop their ability to 'write' educational research and research in education. By 'research in education' we are referring to research undertaken by those engaged in researching within the disciplines such as the philosophy, psychology, sociology, economics, politics and leadership of education. We think that it bears repeating that we distinguish education research from educational research by the focus of educational research on generating valid, evidence-based, values-laden explanations of the educational influences of individuals in their own learning, in the learning of others and in the learning of social formations that influence practice and understandings. It is therefore important a teacher develops research literacy, which includes the ability to 'read' and 'write' educational research, practitioner research, education research and research in associated disciplines and fields of endeavour.

In Chapter One Boyd includes ‘dissemination and peer review’ as step 8 in his proposal for professional inquiry.

8. Disseminate findings and gain peer review	Local dissemination and may be included in institutional quality assurance reports	Local and wider teacher network dissemination, seeking some level of peer review	Aiming for national / international dissemination and often peer reviewed research journal publication
---	--	---	---

We are emphasising and extending this aspect of teachers contributing to knowledge creation and to development of educational impact locally and more widely. When a teacher prepares to disseminate a valid account of their living educational theory research, in writing or presenting, it also helps to shape and refine their thinking.

There are numerous reasons not only for teachers to develop research literacy. The development of democratic societies requires an educated citizenry who are able to discriminate between authentic and fake information on which to base their decisions. The consequences of not incorporating research literacy into education for all stages and ages were evidenced by what happened in America, 6th January 2021. The seat of government in the USA was invaded by a violent mob demanding the overthrow of a democratic election. In spite of 50 States affirming that the election was fair and legitimate, Donald Trump successfully continued his propaganda claiming the election had been stolen from him to convince American citizens to descend on Washington, as the Senate was about to confirm the election results in favour of Joe Biden, and overturn the results. This highlights the importance of an educated and courageous citizenry and their representatives to recognise and resist the allure of popularist politics using false information and analyses.

In Chapter One Boyd mentions philosophical critiques of education research, especially of randomised control trial intervention studies (Gale, 2017; Malone & Hagan, 2020). The authors of these papers come closer to our position, of emphasising the values-based nature of education, but they do not extend research literacy into an examination of the nature of the knowledge generated by practitioner-researchers in their living-educational-theories.

Boyd also identifies the skills that are necessary to critically engage with knowledge created by others. One such skill is to recognise the inappropriate use of statistical analyses in educational research. For example, the data

gathered in research can be nominal, ordinal, interval or ratio. Nominal data can be categorised, but not ordered into a hierarchy. Ordinal data can be categorised and ordered into a hierarchy or taxonomy. Interval or ratio data can be categorised, and ordered with a known interval between the categories. Non-parametric statistics are appropriately used in the analysis of ordinal data with parametric statistics appropriately used in the analysis of interval and ratio data. Educational researchers who are analysing data from values-laden educational practices gather nominal data on the meanings of the embodied expressions of the values of educational practitioners that are resistant to ordinal representation. This resistance was recognised by Husserl (1912) in his seminal work on Phenomenology:

... in the transcendental sphere we have an infinitude of knowledge previous to all deduction, knowledge whose mediated connections (those of intentional implication) have nothing to do with deduction, and being entirely intuitive prove refractory to every methodically devised scheme of constructive symbolism. (Husserl, 1912, p. 12)

Hence it is important for teachers, who are seeking to understand and improve educational practice to be able to recognise what constitutes valid data and ways of analysing them to identify processes of improving educational practice. They also need to have developed their research literacy in a way that enables them to comprehend the appropriate and inappropriate use of statistics in the analysis of data. For example, one area where the use of statistics is appropriate is in highlighting the contexts and issues where values of freedom, equality, justice and respect as well as procedural democratic principles are being denied or could be lived more fully. In their analysis of the factors influencing the career interest of SENCOs in English Schools, Dobson and Douglas (2020) present a quantitative analysis of the factors that influence the motivations of SENCOs. They show the importance of research literacy in comprehending their claim that:

... these factors can now be fully harnessed and utilised in the pursuit of inclusion and high-quality education, the recruitment of a skilled and committed workforce and the retention of teachers within this field. (Dobson & Douglas, 2020, p. 1275)

Research literacy includes the skills knowledge and ability to create and communicate knowledge in the form of an artefact which stands beyond

self, such as that demonstrated by Dobson and Douglas, for critical appraisal and for contributing to the education of all citizens as well as those who are professional educators.

Living Educational Theory Research is a form of professional educational-practitioner research methodology that enables anyone, whatever their location, discipline or field of practice, to realise their responsibilities as a professional and to be professional. We shall now give a brief summary of Living Educational Theory Research, as a form of educational-practitioner self-study research that offers an approach to the continual professional development of educational-practitioners and professional educators.

4. Living Educational Theory Research

Whitehead (1989) coined the term 'living-educational-theory' to mean, a researcher's valid, values-laden explanation of their educational influence in their own learning, the learning of others and the learning of social formations. Living Educational Theory Research is a continual process of a practitioner researching their practice to understand and improve it, create valid values-laden explanations (the why) of their educational influences in learning *and* contribute to a global educational research knowledgebase. Therefore, adopting a Living Educational Theory Research approach enables a practitioner to fulfil their responsibility to contribute to improving professional practice of their profession and/or the community of practice they are a member of, and to contribute to the growth of a global educational practitioner research knowledgebase from which we can all benefit.

Employing a Living Educational Theory Research approach the educational-practitioner clarifies their ontological and social values, as they emerge in the course of researching their practice, to understand, improve and explain it. Those values form the explanatory principles of the explanation of their educational influence in their own learning, the learning of others and the learning of the social formations within which they live and practice. The values also form the standards of judgment by which the practitioner holds them self to account to be improving practice and the standards by which the validity of their claim that the knowledge they have created makes a contribution to a global educational

practitioner research knowledgebase, can be judged. Many universities around the world are now recognising such knowledge as valid by awarding Masters and Doctorates. Some of these can be accessed from <http://www.actionresearch.net/living/living.shtml>. The global professional educational practitioner research community is also recognising the validity and practical use of such knowledge by publishing accounts of their living-educational-theory research in their various journals.

Research literacy in Living Educational Theory Research requires an understanding of what distinguishes the practice of an educational-practitioner in terms of the purpose of the practice, which, borrowing from Reiss and White (talking about the purpose of schools), is to learn:

- ‘to lead a life that is personally flourishing, and
- to help others to do so, too.’ (Reiss & White, 2003, p. 1)

There are many forms of practitioner-research and research in education. Living Educational Theory Research is the only form we have found that is explicitly concerned with researching into *educational* practice to understand and improve it, *and* to generate valid explanations of educational influence in learning as contributions to a global educational knowledgebase. By contributing knowledge, that meets the highest standards of intellectual and scholarly rigor and validity to a global knowledgebase, an individual is contributing to discourses, which offer hope for the flourishing of Humanity.

Living Educational Theory Research is a form of educational practitioner research that enables each person:

- 1) To contribute to and benefit from a global educational practitioner research knowledgebase.
- 2) To participate in academic, intellectual and scholarly discourses which contribute to realising in practice a world where humanity flourishes;
- 3) To connect with others of a like mind who are also developing educational knowledge, theory, practice, relationships and opportunities that contribute to the flourishing of humanity.

We are advocating the development of research literacy in a Living Educational Theory Research approach to the continuing professional development of teachers over a life-time commitment to education exploring the implication of asking, researching and answering questions of the kind, ‘How do I improve my professional educational practice?’. We have explained elsewhere (Whitehead & Huxtable, 2016) how Living Educational Theory Research can contribute to enhancing a profession of educators. The approach

requires many forms of research literacy. One form is the research literacy required to understand and use the contributions from research in the disciplines of education, in the generation of a living-educational-theory. Another is the research literacy required to understand and use the contributions of other living-educational-theories in the generation of one's own. For example, Briganti (2020) engages with both research literacies in the generation of her own living-educational-theory of as an International Development practitioner. All of the living-educational-theories accessible from <https://www.actionresearch.net/living/living.shtml> engage in both forms of research literacy. Qutoshi (2016), for example, develops his research literacy as he researches transformative teacher education in Pakistan in the creation of his own living-educational-theory of his practice as teacher educator influencing national educational policies and practices. He also engages with other living-educational-theories accounts in the generation of his own.

5. Extending research literacy

We provide examples of how, as they engaged in Living Educational Theory Research, teachers developed their research literacy as they realised their educational responsibilities as professional educators and educational-practitioners.

Mounter (2008) has researched her practice when working as a class teacher in an English rural primary school. Mounter enabled her 6 and 7 year old pupils to create and to contribute valid and valuable educational knowledge to their own learning and to the learning of fellow pupils and school staff¹.

Bognar and Zovko (2008) working in Croatia have shown how Bognar working as teacher educator enabled Zovko, as class teacher, to work with Key Stage 2 pupils in Croatia to do the same².

Sanja Lišnjić (nee Mandarić) also working with Bognar developed her research literacy over time. She developed her ability to write research of her educational practice to create a democratic educational learning environment

¹ <https://www.actionresearch.net/writings/tuesdayma/joymounterull.pdf>

² <https://ejolts.net/node/82>

for her pupils learning English (Mandarić, 2011) and subsequently giving a keynote presentation at an international conference (Lišnjić, 2019)³.

Cartwright (2008) working with students in an English secondary school showed how by enabling her 16 to 17 year old to take a Living Educational Theory Research approach to their educational development as they engaged in their Advanced Supplementary (AS) Extended project. Their course work was awarded the highest grades and you can hear for yourself what educationally they learned in the process (Huxtable, 2009, p. 135)⁴.

Tofail (2020) researching in Bangladesh with teachers, examines responses to the policy level introduction of communicative approach to English Language Teaching and dissatisfaction of different stakeholders, particularly teachers, with curricular reform that was not resulting in learners' 'increased proficiency'. Despite considerable consensus about the efficacy of teacher-research what practitioners from postcolonial communities actually say, think or believe about this and the influence on practice of teachers engaging in teacher-research, has remained considerably under-reported. Tofail explains her developing research literacy working and researching within a project that examines whether collaborative research promoted a better understanding of teachers' own beliefs and policy level changes, and empowered them to make informed choices and devise context-sensitive pedagogies in their unique teaching-learning contexts.

Rawal (2018) extends her research literacy in the context of influencing a life-skills educational policy for the Ministry of Education in India. Rawal highlights the importance of developing research literacy with faculty members at Sardar Patel University, India. Their engagement in curriculum development is related to their understandings of curriculum and their teaching and research experiences. This article deals with how Swaroop confronted the 'system' and became a more socially responsible thinker:

An important aspect of this experience is that of my learning and transformation. Reassessing my assumptions and challenging them enabled me to transform my understanding and act on my renewed perspectives and become a more socially responsible thinker. (Rawal, 2018, p. 65)

3 <https://www.youtube.com/watch?v=t8tFTBOsdJY&t=63s>

4 <http://www.youtube.com/watch?v=tMpaItNH7kg>

6. Enquiry leading to inquiry

Members of a profession, such as teachers, who work in Education, have to develop a variety of competencies. What is not explicit is what constitutes 'educational practice' as distinct from the competencies necessary to 'do the job' of a professional working in Education. This includes writing reports fit for various purposes, managing time and resources using the latest technology making research-based, professional development presentations, an running workshops.

What is the difference between Inquiry and Enquiry?

- 'It is clear then that the word inquiry is used where a formal investigation is done or carried out to get to the root of a puzzle or a case.
- An enquiry is a quest for knowledge or information, whereas inquiry is also a quest but more in the form of a formal investigation.

The two words are often used interchangeably, but those who are learned know the difference between inquiry and enquiry and use it appropriately.⁵

What is the difference between Inquiry and Research?

The main difference between Inquiry and Research is that the Inquiry is a process that has the aim of augmenting knowledge, resolving doubt, or solving a problem and Research is the formal work undertaken systematically to increase the stock of knowledge.⁶

In British English people sometimes distinguish between enquire and inquire, using enquire for the general meaning of 'ask for information' and inquire for the more particular meaning of 'officially investigate'

"Enquire" ask questions to find out more about something.

"Inquire" to formally investigate to resolve doubt or solve a problem (is it better to use this or that?).

"Research" a formal work undertaken systematically to increase the stock of knowledge.⁷

5 <https://www.differencebetween.com/difference-between-inquiry-and-vs-enquiry/>

6 <https://www.askdifference.com/inquiry-vs-research/>

7 <https://www.oxfordlearnersdictionaries.com/definition/english/enquire>

A Living Educational Theory Research approach to continual professional development involves the educator developing their research literacy so they cannot only develop their ability to ask 'good' questions and resolve problems of practice. They also develop their ability to create educational praxis, support them with well reasoned, rational arguments and in the course of making them public, rigorously testing the validity of their knowledge claims.

By developing their research literacy educational-practitioner researchers can extend their cognitive range and concern and critically and creatively engage with various methodologies to improve their living-educational-theory research (Whitehead, 2018). Other methodologies commonly include, for example, Narrative Inquiry, Phenomenology and Ethnography; Self-Study Education Practitioner Research; Action Research; Autoethnography and Phenomenography.

Conclusion

The chapter concludes with suggestions of where to look for information and support should you wish to explore further a Living Educational Theory Research approach as part of your continual professional development programme. This involves developing research literacy as integral to enhancing your educational influence in learning and contribution to education as a values-laden practice.

One purpose served by teachers developing their research literacy is so they can critically engage with what researchers in education and policy makers publish. They do so to improve their ability to engage their students in the given curriculum, success being measure by the degree to which learning objectives are met. It is important for teachers to develop their subject knowledge and skill to impart it. It is at least of equal importance that they develop their practice as educators to enhance their educational influence in their learning and that of their students to develop and pursue their life-long educational curriculum. Shulman (1987) refers to this knowledge as Pedagogical Content Knowledge (PCK).

Bassey (1991), in his presidential address to BERA, 'Creating Education Through Research', describes three ways of creating education. He speculates that most of us, most of the time, create education, "... by playing hunches, by using intuition without challenge and without monitoring the consequences."

and "... repeating what has been done before." He goes on to offer another way, which is particularly relevant to an audience of teachers faced with the challenges of trying to improve educational experiences, opportunities and relationships in education establishments, from nursery schools to universities, which are now business enterprises. The other way is:

... by asking questions and searching for evidence. It is creating education by asking about intentions, by determining their worth, by appraising resources, by identifying alternative strategies, and by monitoring and evaluating outcomes. It is creating education through systematic and critical enquiry. It is creating education through research. (Bassey, 1991, p. 3)

He also proposes, "... that researchers have three levels of engaging in criticism in relation to other researchers."

Level One is the personal level, where one is working more or less alone in designing an enquiry, collecting data, analysing and interpreting it, drawing tentative conclusions, and reflecting on the process and outcomes...

Level Two is the informal interactive level, where the enquiry is shared with selected others (orally or in writing) for critical appraisal of its meaningfulness...

Level Three is the formal dissemination level where an account of the enquiry and its findings is published in the literature... (*Ibidem*, p. 4)

By realising their professional responsibility to contribute their knowledge to the growth of their professional knowledgebase teachers (level 3) teachers extend their cognitive range and concern and explore their practice through other lenses. This holds the possibility of going beyond 'what has been done before' to enhance their educational influence in learning and to contributing to the professional knowledgebase.

We conclude with an invitation to teachers to explore further a Living Educational Theory Research approach as part of their CPD programme, in which developing research literacy is integral to enhance their educational influence in learning and contribute to creating education as a life-long, values-laden practical activity.

References

- Bassey, M. (1991). Creating Education through Research. *The British Educational Research Journal*, 18(1), 3–16.
- Biesta, G.J.J. (2006). *Beyond Learning: Democratic Education for a Human Future*. Boulder: Paradigm Publishers.
- Bognar, B. & Zovko, M. (2008). Pupils as action researchers: improving something important in our lives. *Educational Journal of Living Theories*, 1(1), 1–49. Available at: <https://ejolts.net/node/82>.
- Boyd, P. & White, E. (2017). Teacher and Teacher Educator Professional Inquiry in an Age of Accountability. In P. Boyd & A. Szplit (Eds.), *Teachers and Teacher Educators Learning Through Inquiry: International Perspectives*. Available at: <https://goo.gl/RtPwQ5>.
- Briganti, A. (2020). *My living-theory of International Development*, PhD Thesis, University of Lancaster. Available at: <https://www.actionresearch.net/living/ABriganti-phd.pdf>.
- Cartwright, S. (2008). *How can I enable the gifts and talents of my students to be in the driving seat of their own learning?* Gifts and Talents MA Unit, University of Bath. Available at: <https://www.actionresearch.net/writings/tuesdayma/scgandtnovo8.pdf>.
- DES (2016). *Standards for teachers' professional development*. London: DES.
- Dobson, G. & Douglas, G. (2020). Factors influencing the career interest of SENCOs in English schools. *British Educational Research Association*, 46(60), 1256–1278. DOI: 10.1002/berj.3631.
- Feyerabend, P. (1975). *Against Method*. London: Verso.
- Foucault, M. (1977). *Discipline and Punish: The Birth of the Prison*. New York: Random House.
- Gale, T. (2017). "What's Not to like about RCTs in Education?" In A. Childs & I. Menter (Eds.), *Mobilising Teacher Researchers*. London: Routledge. Available at: <http://eprints.gla.ac.uk/158072/1/158072.pdf>.
- Habermas, J. (1976). *Communication and the evolution of society*. London: Heinemann.
- Hargreaves, A. (2000). Four Ages of Professionalism and Professional Learning. *Teachers and Teaching*, 6(2), 151–182.
- Husserl, E. (1912). *Ideas: General Introduction to Phenomenology*. London: George Allen and Unwin Ltd.
- Huxtable, M. (2009). Enhancing Creativity in Educational Practice and Teachers Continued Professional Development Through Contributing to Improving Inclusive and Inclusional Gifted and Talented Educational Theory and Practice. In L. Bognar, J. Whitehead, B. Bognar, M.P. Kraljik & K. Munk (Eds.), *Encouraging creativity in education: Collection of papers – a Handbook for Current and Future Teachers*, "A Creative Approach to Teacher Education" (pp. 128–141). Pozega, Croatia, 27–30 Sept. 2009.

- Huxtable, M. (2012). *How do I Evolve Living-Educational-Theory Praxis in Living-boundaries?* PhD Thesis, University of Bath. Available at: <https://www.actionresearch.net/living/mariehuxtable.shtml>.
- Huxtable, M. & Whitehead, J. (2021). Enhancing educational influences in learning with a Living Theory approach to Pedagogical Action Research in Higher Education. *Educational Action Research*, 29(2), 310–327.
- Lee, C.D. & Rochon, R.S. (2010). American Educational Research Association 2010 Annual Meeting Call for Submissions. *Educational Researcher*, 38(4), 301–322.
- Lišnjić, S. (2019). *How I changed my educational values and practice through action research?* Keynote speech at the CARN-ALARA 2019 Conference held in Split. Available at: <https://www.youtube.com/watch?v=t8tFTBOsdJY&t=63s>.
- Malone, A. & Hagan, P. (2020). Evidence and its consequences in educational research. *British Educational Research Journal*, 46(2), 265–280.
- Mandarić, S. (2011). How I Began to Acquire the Values of Learner-centred Teaching Through Action Research. In *Action Research for the Professional Development of Teachers* (pp. 303–314). Croatia: Agencija za odgoj i obrazovanje & Council of Europe.
- Mounter, J. (2008). *Can children carry out action research about learning, creating their own learning theory? Understanding Learning and Learners MA assignment.* University of Bath, UK. Available at: <https://www.actionresearch.net/writings/tuesdayma/joymounterull.pdf>.
- Northedge, A. (2003). Enabling Participation in Academic Discourse. *Teaching in Higher Education*, 8(2), 169–180.
- Peters, R.S. (1966). *Ethics and Education*. London: Allen & Unwin.
- Qutoshi, S.B. (2016). *Creating Living-Educational-Theory: A Journey Towards Transformative Teacher Education in Pakistan*. PhD, University of Kathmandu, Nepal. Available at: <https://www.actionresearch.net/living/sadruddin.shtml>.
- Rawal, S. (2018). An Interface: How Do I Overcome Challenges to Justify and Communicate Claims to My Educational Knowledge and the Educational Influence of My Practice? *Educational Journal of Living Theories*, 11(2), 65–89. Available at: <https://ejolts.net/node/327>.
- Rayner, T. (2014). *Meaning is use: Wittgenstein on the limits of language*. Available at: <https://philosophyforchange.wordpress.com/2014/03/11/meaning-is-use-wittgenstein-on-the-limits-of-language/>.
- Reiss, M.J. & White, J. (2013). *An Aims-based Curriculum: The Significance of Human Flourishing for Schools*. London: Institute of Education Press.
- Roosevelt, E. (1930). Good Citizenship: The Purpose of Education. *Pictorial Review*, 31(4), 312–320.
- Shulman, L. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1–22.
- Tofail, F. (2020). A journey to the centre’ – exploring action research to explain my emerging living-educational-theory and empower local practitioners in policy

- and practice in Bangladesh. *Educational Journal of Living Theories*, 13(2), 93–117. Available at: <https://ejolts.net/node/368>.
- Vijayalakshmi, S. & Rajasekar, P. (2019). Teacher Professionalism. *Pramana Research Journal*, 9(6), 609–616.
- Wenger, E. (2000). Communities of Practice and Social Learning Systems. *Organisation*, 7(2), 225–246.
- Whitehead, J. (1989). Creating a living educational theory from questions of the kind, “How do I improve my practice?”. *Cambridge Journal of Education*, 19(1), 41–52.
- Whitehead, J. (1993). *The Growth of Educational Knowledge. Creating Your Own Living Educational Theories*. Bournemouth: Hyde publications. Available at: <https://www.actionresearch.net/writings/jwgek93.htm>.
- Whitehead, J. (2018). *Justifying your creation of a living theory methodology in the creation of your living educational theory*. Available at: <https://www.actionresearch.net/writings/arsup/livingtheorymethodologies.pdf>.
- Whitehead, J. & Huxtable, M. (2006a). *How are we co-creating living standards of judgement in action-researching our professional practices?* Multi-media text presented at the World Congress of ALARPM and PAR 21–24 August 2006 in Groningen. Available at: <https://www.actionresearch.net/writings/jack/jwm-ho6ALARPMmulti.pdf>.
- Whitehead, J. & Huxtable, M. (2006b). *How are we co-creating living standards of judgement in action-researching our professional practices?* Printed text in the Conference Proceedings of the World Congress of ALARPM and PAR 21–24 August 2006 in Groningen. Available at: <https://www.actionresearch.net/writings/jack/jwmhalarpmtexto6.pdf>.
- Whitehead, J. & Huxtable, M. (2016). Creating a Profession of Educators with the living-theories of Master and Doctor Educators. *Gifted Education International*, 32(1), 6–25. Available at: <https://www.actionresearch.net/writings/gei2015/gei-contents2016.pdf>.
- Winch, C. (2013). Curriculum Design and Epistemic Ascent. *Journal of Philosophy of Education*, 47(1), 128–146.

