Chapter Five

Methodological Approach

Introduction

In this chapter, I will set out the action research methodology that I intend to use in my self-study as well as exploring other forms of research. I will discuss the concepts of ontology and epistemology and their relevance to our understanding of research. I use a 'living educational theory' approach to action research as it allows me to provide explanations for my own learning, my influence in the learning of others and my influence in the education of social formations.

'Normative' and 'interpretive' are terms used to describe two perspectives on the nature of the world or reality. Whichever view we take will affect how we go about uncovering knowledge and social behaviour. These two perspectives relate to one's assumptions in four areas: ontological, epistemological, socio-cultural and methodological. In any discussion about research, it is important to explain one's assumptions. I will explore these four sets of assumptions. Ontology refers to whether reality is objective and external to human beings or whether it is created by one's own consciousness. Epistemology is concerned with knowledge and how it can be acquired. The question here relates to whether we see knowledge as a hard body of objective reality or as a subjective experience of reality. Whichever view we take will affect how we go about uncovering knowledge. The socio-cultural assumption concerns the relationship between humans and the natural environment. This refers to whether or not the human being is essentially active or passive. Do we respond to external events or stimuli or are we active initiators of our own actions? Whichever

perspective we adopt will affect the methodological approach that we choose in research. Usher believes that most researchers hold these commitments tacitly. "*What we can conclude from this is that methods are embedded in commitments to a particular version of the world (an ontology) and ways of knowing that world (an epistemology)*" (Usher, 1996, p. 13). Thus epistemological and ontological questions are related since claims about what exists in the world imply claims about how what exists may be known. Positivist tend to view that universal laws govern social behaviour and to treat knowledge as objective. If we adopt a positivist stance in pursuing educational research we will tend to see the social world as analogous to the natural world and susceptible to the formation of universal laws. Competing views are more skeptical of generalisations and more alive to the play of human creativity whose consequences may be difficult to predict.

For many years epistemology took the position that any claim to know must be justified on the basis of how the claim was arrived at. In many research fields, the 'good grounds' for judging the validity of knowledge claims was that the researcher was 'objective', i.e. the researcher took an observer role, using the methods of natural science or scientific methods. The researcher did not enter the equation. Research conducted along these lines entails an epistemology heavily laden with positivist and empiricist notions. Scientific method, so constructed, could be seen as the way to guarantee "*true and certain knowledge*" (Usher, 1996, p. 26). If we take the position that the knower exists apart from the knowledge, which is, "*a free-standing unit with an existence of its own*" (McNiff & Whitehead, 2002, pp. 17-18). In this view, we are led to adopt a particular form of epistemology and the assumptions that go with it.

Usher points out that positivist/empiricist epistemology is based upon a set of beliefs. These include the expectation that there is a certain truth that can be known, that there must be no contradictory explanations, that there must be convergence on a single explanation; that research leads to generalisations which in turn enable predictions to be made and events to be controlled. Usher is convinced that a positivist approach can be seen as unreflexive, since its main focus is on methods and outcomes, and there is no question or discussion about the research process itself. Usher (1996, p. 14) warns of the danger of taking a natural science view of social or educational science. He sees that the ontological assumptions underpinning this view are of the world as "*orderly, lawful and hence predictable, are highly problematic*".

Interpretive research

One may set against the positivist approaches to research discussed above, another research tradition, that of interpretive research which traverses fields such as phenomenology, ethnography, and hermeneutics. The assumption underpinning the epistemology proper to this school of research is that all human action is meaningful and has to be interpreted and understood within the context of social practices (Usher, 1996, p. 18).

In order to make sense of the social world, the researcher needs to understand the meanings that form and are formed by interactive social behaviour. Human action is given meaning by interpretive frameworks. Within an interpretive framework, the researcher tries to make sense of what s/he is researching. This process is known as 'double hermeneutic' in that in the conduct of social research, both the subject (the

researcher) and the object (other people in the study) of the research bear the same characteristic of being interpreters or sense seeking.

Critical theory school

Advocates of the Critical theory school believe that positivist and hermeneutic schools did not address the historical, cultural and social situatedness of researchers. The aim of Critical theory is to make people aware of their historical, cultural and social conditioning and discover how to recreate their personal and social realities (McNiff & Whitelead, 2002, p. 33).

Habermas is the main proponent of the critical theory approach. He points to the importance of the following four validity claims that are implicit in any communicative transaction and that the speaker must be able to defend.

The speaker claims to be:

- *Uttering* something understandably;
- Giving [the hearer] *something* to understand;
- Making *himself* thereby understandable; and
- Coming to an understanding *with another person*.

<div align="center">(Habermas, 1976, p. 2).</div>

Habermas' claims pertain to the 'ideal speech situations'. For Habermas, (1976) truth is the outcome of *rational agreement reached through critical discussion.*

McNiff & Whitehead (2002, p. 34) points to the power of critical theory for social renewal. However, warn that while critical theorists point to what is required to redress wrongs, they do not show how their theories can be realised in practice. Gergen and Gergen (1991, p. 78) believes that, "*knowledge is part of the coordinated activities of individuals, which are used to accomplish locally-agreed-upon purposes concerning the real and the good*". The focus is on inter-dependence and not independence. Steier (1991, p. 180) points out that when the observer is situated within his or her research enquiry, we have the makings of a reflexive methodology for research. He refers to the term 'ecology' in the Bateson sense of a 'context' that includes "*the idea of a researcher (co-)constructing (with reciprocators) a world*" (*ibid*). Thus there is now an active and lively body of researchers who are convinced that research enquiry in the human sciences can and should take account of the potentiality for creative action of all relevant participants, including the researcher, and relate to broader social environments.

My Research perspective

I believe that ontology and epistemology are inextricably linked in self-study research. Research can be seen not as abstract but as involving interactions with others. As a higher education educator, I believe that my learners and I co-construct knowledge together, and this is a knowledge creation process. In exploring the different views of reality, I take the view that reality is constructed in collaboration with my students and that I construct meanings in relation to others. This has implications for the methodology of my research as I do not see knowledge as a fixed quantum but as an ongoing activity. In other words, social reality is constructed through interaction with others and so the observer's exchanges with the observed,

and the wider outcomes of these exchanges through these connections, represent a vital element in this form of research. In exploring how I am improving my practice I take an educational action research approach. I relate to Bertrand's claim that knowledge comes first out of uncertainty or a question: "*Knowledge is the opposite of the demonstration of a rule and it has nothing to do with the bureaucratisation of ideas. It is an awareness, a sensitivity to life, to things that cannot be known, to uncertainty*" (Bertrand, 1998, p. 117). He believes that we have to rely on our imagination, or we risk believing that textbook, and the media, such as TV and movies show us real life. My view of educational research is that it is about improving education and at the same time contributing to knowledge. Rather than focusing on the notion of a generalisable theory, I work with the idea of theory as situated in practice, explaining and energising human exchanges in transforming social contexts.

Bassey's (1995) idea of a study of singularity is relevant in this context: "*A singularity is a set of anecdotes about particular events occurring within a stated boundary, which are subjected to systematic and critical search for some truth. This truth, while pertaining to the inside of the boundary, may stimulate thinking about similar situations elsewhere*" (Bassey, 1995, p. 111).

Bassey believes that this boundary can be defined in space and time. It could refer to a particular classroom, or school, or local education authority, or as sets of these, that takes place in a particular period. It may also be defined as a particular person, or group of people, at a particular time and in a particular space.

Action Research Models

Action research is form of practitioner research where there is a professional intent to intervene to improve practice in line with values that are rational and just, and specific to the situation. Action research tends to have the following characteristics: it is cyclical; it requires separate and yet mutually dependent steps; it is participative as the researcher and researched are active participants in the research process; the data is generally of a qualitative nature; it is a reflective process. As change is intended to result, action research depends on the agreement and commitment of those who are affected by the research. Although the processes of carrying out action research may vary, there is a common emphasis on critical and democratic social theory, and a departure from unengaged research as the appropriate enquiry path for practitioners in practical situations.

There are different action research models and each one has its own unique way of working through the action research process. In the literature, I identified the following contributions to action research.

- Kurt Lewin's model of action research

- John Elliott of East Anglia University, UK

- Wilfred Carr and Stephen Kemmis of the Deakin School of Action Research, Australia

- Ernie Stringer, Community based Action Research

- Ortrun Zuber-Skerritt, University of Queensland

- Jack Whitehead at University of Bath, UK

Kurt Lewin (1952) is credited as being the first to coin the term 'action research'. Lewin's original formulation of the idea of action research was based on the belief that it is in trying to change social situations that we best come to understand them. Lewin's approach consists of the following steps: plan, act, observe and reflect (Fig. 5.1)
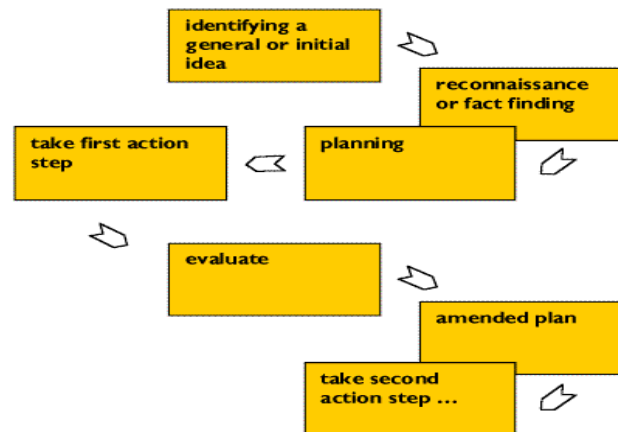

Fig. 5.1

Source: http://www.infed.org/thinkers/et-lewin.htm (accessed on 10th February, 2005)

Lewin's models of action research (Fig. 5.1) involves identifying a general idea, fact finding or reconnaissance, general planning of action, developing first action plan, implementing the first action step, evaluation, revising the general plan. Then the second action step developed and continues through the stages again.

John Elliott points out that in using Lewin's model, one might assume that the 'general idea' can be fixed in advance, that 'reconnaissance' is merely fact-finding, and that 'implementation' is a fairly straightforward process. Elliot argues that the general idea should be allowed to change, that reconnaissance should include analysis as well as fact finding and should occur throughout the action research process and not only at the beginning. Elliott says that implementation is not a simple task and one

should monitor the effects of action before evaluation takes place (Elliott, 1991, p. 70). Elliott extends the spiral activities as shown in Fig. 5.2.

Elliott makes the point that definitions of action research can put a tight boundary on the full meaning of action research. He believes that the drawing of such a tight boundary is often based on the assumption that the practical knowledge which stems from action research is non-theoretical because its value is entirely instrumental to the task of improving practice as a means to an end. Such an assumption implies that the pursuit of practical knowledge through action research is for the sake of practical goals that can be defined independently and in advance of the action research process, whereas research aimed at the construction of theory is the pursuit of knowledge for its own sake (Elliott, 2004, p. 1).

In defining action research as:

The fundamental aim of action research is to improve practice rather than to produce knowledge. The production and utilisation of knowledge is subordinate to, and conditioned by, this fundamental aim.

(Elliott, 1991, p. 49)

Elliott claims that he was attempting to highlight the importance of the practical standpoint as a context for knowledge generation. However, he now sees that this definition could be viewed as a way of prioritising practice over theory. He challenges us to review our idea of 'theory' as exclusively referring to generalisable representation of events. Some would claim that theory must be held separate from the agents who wish to affect changes in practical situations. Elliott claims that small-scale studies can not only improve practical situations, but can also lead to the

generation of theory. In effect, Elliott's work encourages the notion that teachers can

be enabled to create their theory of practice through critical reflection on their
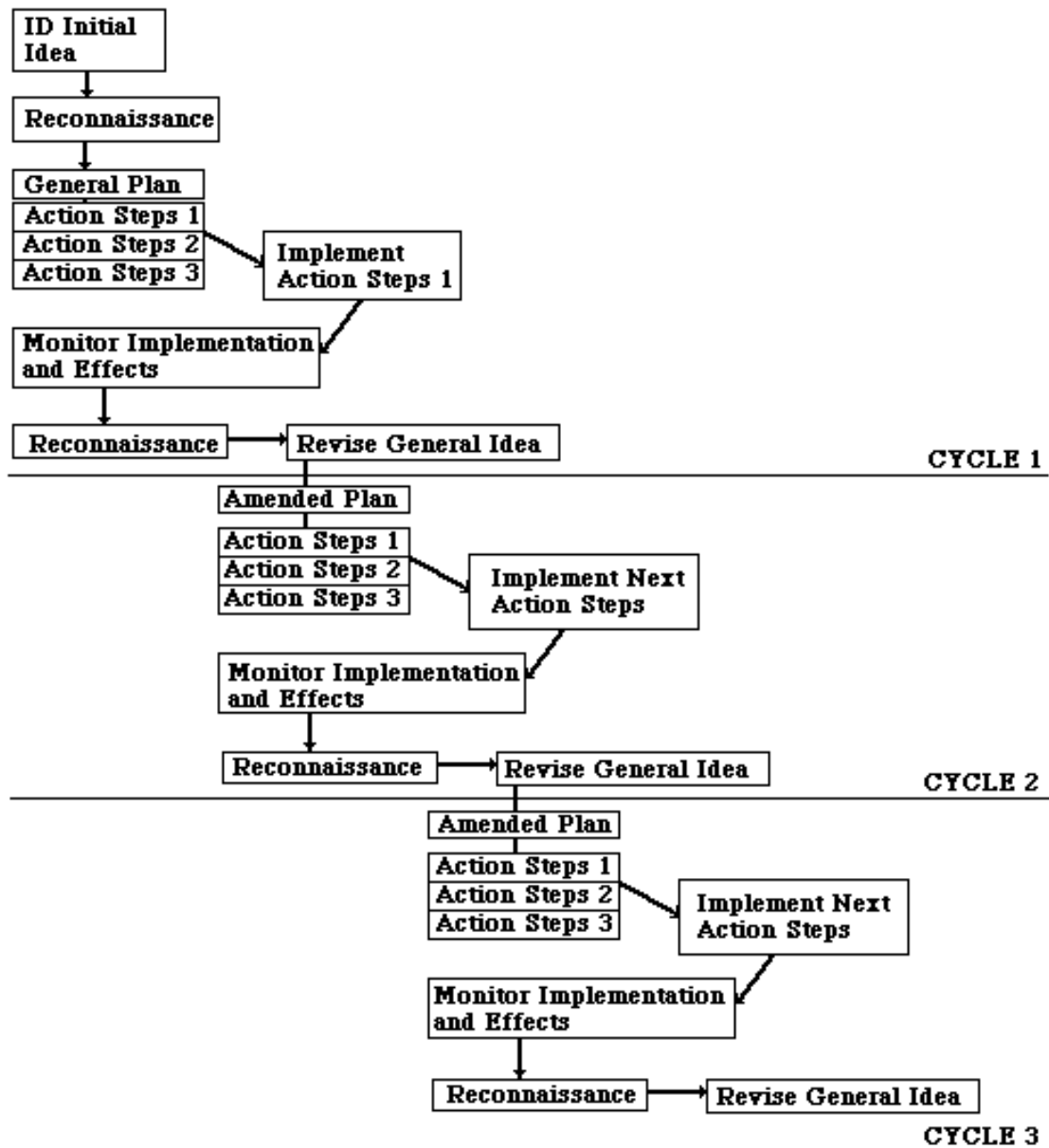
practice. Figure 5.2 shows an early model of Elliott.

Figure 5.2

Source: Elliott, J. (1991)

Carr and Kemmis' emphasis this characteristic in their definition of action research:

"a form of self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own practices, their understanding of these practices, and the situations in which the practices are carried out".

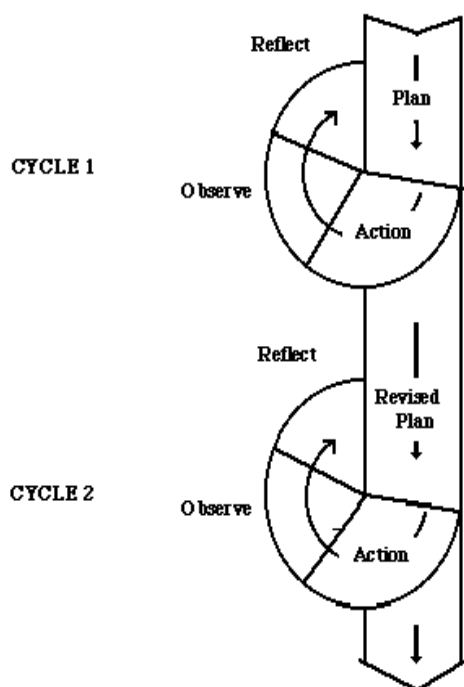(Carr and Kemmis, 1986, p. 162)

Fig. 5.3

Source: Kemmis and McTaggart (1988)

In an early model of Kemmis (Fig. 5.3), shows how reflection leads on to the next stage of planning. The planning stage is not separate from the previous stage but is embedded in action and reflection. The short and multiple cycles

are to ensure rigour. As it is intended that the end result is change, effective

action research depends upon the agreement and commitment of those affected

by it. This is achieved by involving them directly in the research process.

Action research is also used within community-based work. Stringer's view on

community-based action research is that one is working through an explicit set of

social values that - in today's democratic social contexts - involves a process of

inquiry that has the following characteristics:

- it is democratic, enabling the participation of all people.

- it is equitable, acknowledging people's equality of worth.

- it is liberating, providing freedom from oppressive, debilitating conditions.

- it is life enhancing, enabling the expression of people's full human potential.

<div align="right">(Stringer, 1999, pp.9-10)</div>

Stringer uses the following action research process in his early model of action

research.

Look: Building a picture and gathering information.

Think: Interpreting and explaining.

Act: resolving issues and problems.

<div align="center">Stringer (1999, pp. 43-44)</div>

Zubber-Skerritt suggests that action research offers an approach to advancing

knowledge and a way of improving learning and teaching in higher education. An

early model provides the following five reasons for use of action research in higher

education which are summarised in the acronym CRASP: *Action research promotes a Critical attitude, Research into teaching, Accountability, Self-evaluation and Professionalism* (Zubber-Skerritt,1992, p.15).

Jack Whitehead's living educational theory approach

For the past 30 years, Jack Whitehead has been committed to an action research approach which he calls 'living educational theory'. Whitehead sees education as a value-laden activity and refers to values as those qualities, which give meaning and purpose to our personal and professional lives. He suggests that in asking questions of the kind, 'how do I improve what I am doing?' (Whitehead, 1989, 2005), practitioners can create their own theory by embodying their educational values in their practice. He does not see educational theory as constituted by the disciplines of philosophy, psychology, sociology and history of education. Whitehead sees the purpose of educational research as essentially concerned with the creation and testing of educational theories: "*Because I see educational theory as an account of the educational influence of individuals and social formations that include learning to live values more fully, I attach great importance to those values that appear to carry hope for the future of humanity*" (Whitehead, 2004, p. 2).

In the development of a living educational theory approach Whitehead (2004, p. 2) offers the following five ideas.

i).   That one should include 'I' as a living contradiction in educational enquiries of the kind, 'How do I improve my practice?'

ii).   That one should develop systematic forms of action enquiry including 'I' as a living contradiction.

iii).	That one should seek to create and test living educational theories as explanations for learning in educational enquiries of the kind, 'How do I improve my practice?'

iv).	That one should devise a process for clarifying the meanings of embodied values in the course of their emergence in practice and for transforming embodied values into living and communicable standards of educational judgement.

v).	That one should identify ways of influencing the education of social formations through the creation and testing of living educational theories in a range of cultural and social contexts using multi-media representations.

Whitehead draws on the idea of social formations as defined by the social theorist, Bourdieu (1990) who analysed the idea of the power of the habitus in analyzing social formations.

"…*social science makes greatest use of the language of rules precisely in the cases where it is most totally inadequate, that is, in analyzing social formations in which, because of the constancy of the objective conditions over time, rules have a particularly small part to play in the determination of practices which is largely entrusted to the automatisms of the habitus*".

(Bourdieu, 1990, p. 145).

Both Whitehead and McNiff (2005, pp. 2-3) see an educational theory as having to explain our educational influence in our own learning, in the learning of others or in

the education of a social formations. In seeing the existence of living contradiction in exploring questions, such as 'How do I improve what I am doing?' They cannot explain it under a propositional theory that eliminates contradictions from the explanation, "*…propositional theory abide by the Aristotelean Law of Contradiction that eliminates from theory the possibility that two mutual exclusive statements can be true simultaneouly*".   Popper (1963) rejected dialectical claims to knowledge as, "*without the slightest foundation. Indeed, they are based on nothing better than a loose and wooly way of speaking*" (Popper, 1963, p. 316). In developing a dialectical view of scientific enquiry in educational research, Whitehead recognises that 'I' exists as a living contradiction. Whitehead uses the logic of dialectics in asking questions, expressing concerns, imagining a way forward, acting and gathering data, evaluating action in relation to values. In this way one can clarify the meaning of embodied values in the course of their emergence in educational practice.

In order to move from Propositonal and Dialectical logic to Inclusional logic Whitehead draws on the following idea from Rayner (2002):

> *"Inclusional modes of communication that enable source and receiver literally to correspond with one another, to engage reciprocally in a truly co-creative mutually transformative dialogue….Learning becomes a process of recreative self-discovery, facilitated by educators whose role is to provide guidance and an awareness of knowledge rather than to instill more of the same".*

Whitehead believes that a living logic of inclusionality can hold together both propositional and dialectical logics.

According to Whitehead (2004) propositional and dialectical logics can communicate meanings through text. Text may not be sufficient but the meanings of living standards of judgement may require more multimedia forms of representation. Thus, the advances in digital technology which can represent audio and visual representations can be used to demonstrate living standards of judgement.

Whitehead suggests that action research involves a self-study because the practitioner-researcher is studying his or her own practice. He does not believe that self-study necessarily involves action research. One can study the self without focusing on improving one's practice. The emphasis in this enquiry is self-study within an action research approach. There is a growing interest in Self-Study of teaching practice among teacher education. This interest led to the setting up of the Self-Study of Teacher Education Practices, Special Interest Group (S-STEP) of the American Educational Research Association (AERA) in 1992. Zeichner (1998) describes the movement as the most important innovation in research on teacher education. International interest in the area of self-study has grown over the past decade (Russell & Munby, 1992; Whitehead, 1989, 2000; Loughran, 1996; Hamilton & Pinnegar, 1998; Korthagen & Kessels, 2001). The importance of the Self-Study movement in teacher education is that it is contributing to the development of a new epistemology for the scholarship of teaching and learning (Schön, 1995, p. 31; Whitehead, 2004, p. 7). The influence of the Self-Study movement in teacher education is evident from the recent publication of the International Handbook of Self-Study of Teaching Practice

(Loughran, Hamilton, LaBoskey, Russell, T. L., 2004). The handbook provides clear evidence of how Self-Study is influencing teacher education in the Academy and other social formations.

The question of validity and rigour

Usher's (1994) reservations about what is often described as 'scientific methods' are echoed by Sparkes who is likewise concerned about the excessive claims made by adherents of the traditional view of scientific research with its commitment to rationality, objectivity, and a range of dualisms that include subject/other. He advocates acknowledgement of other forms of research and warns that; "*Any kind of research can be dismissed, trashed, and trivialized if inappropriate criteria are imposed on it*" (Sparkes, 2002, p. 199). He claims that participatory action research suggests that validity, in the context of this form of inquiry, needs to be re-conceptualised in terms of the efficacy of the research in relation to changing relevant social practices. Sparkes makes reference to the work of Schwandt who proposes that social inquiry be redefined through the application of practical philosophy, which involves challenging the ideology of 'epistemic criteria', that focuses on fixed and predetermined rules.

In this way, he envisages a new moral and political framework would be invoked wherein values and concerns could be addressed through open dialogue, critical reflection, and a willingness to change (Schwandt, 1996, cited in Sparkes, 2002, p. 220). These views can be traced back to Smith (1989, 1993, cited in Sparkes, 2002, p. 221) who believes that judgement in qualitative inquiry takes place through debate, discussion, and the use of exemplars. In the context of changing or improving social

practice, in education in particular, it emerges that teachers' values and concerns need to be addressed and that this can be done through involving teachers in critical reflective dialogue and developing a more open attitude to practice.

Bullough and Pinnegar (2001, pp. 16-20) offer fourteen guidelines for quality in self-study.

1. Autobiographical studies should ring true and enable connection.

2. Self-studies should promote insight and interpretation.

3. Autobiographical self-study research must engage history forthrightly and the author must take an honest stand.

4. Biographical and autobiographical self-studies in teacher education are about the problems and issues that make someone an educator.

5. Authentic voice is a necessary but not sufficient condition for the scholarly standing of a biographical self-study.

6. The autobiographical self-study researcher has an ineluctable obligation to seek to improve the learning situation not only for the self but also for the other.

7. Powerful autobiographical self-studies portray character development and include dramatic action: Something genuine is at stake in the story.

8. Quality autobiographical self-studies attend carefully to persons in context or setting.

9. Quality autobiographical self-studies offer fresh perspectives on established truths.

10. Self-studies that rely on correspondence should provide the reader with an inside look at participants' thinking and feeling.

11. To be scholarship, edited conversation or correspondence must not only have coherence and structure, but also that coherence and structure should provide argumentation and convincing evidence.

12. Self-studies that rely on correspondence bring with them the necessity to select, frame, arrange, and footnote the correspondence in ways that demonstrate wholeness.

13. Interpretations made of self-study data should not only reveal but also interrogate the relationships, contradictions, and limits of the views presented.

14. Effective correspondence self-studies contain complication or tension.

These guidelines demonstrate quality in self-study research, however a self-study must also answer the question of what makes it valid. Feldman defines validity as the "*degree to which a study accurately reflects or assesses the specific topic that the research is attempting*" (Feldman, 2003, p. 26). In self-study we need to show that our self-study as teacher educators is making a difference and bringing about improvement in practice. This then raises the questions of how we know that we have changed our ways of being and how we convince others not only that the change has occurred but also that it has value (Feldman, 2003, p. 27). Qualitative research has few measurements and researchers have developed other criteria to judge the validity of qualitative research.

Feldman (2003) suggests that the following ways to increase the validity of self-studies:

i). Provide a clear and detailed description of how we collect data and make

explicit what counts as data in our work i.e. provide the details of the research

methods used.

ii). Provide clear and detailed descriptions of how we constructed the

representation for our data.

iii). Extend triangulation beyond multiple sources of data to include explorations

of multiple ways to represent the same self-study.

iv). Provide evidence of the value of the changes in our ways of being teacher -

educators.

In 1995, Schön advocated the need for a new epistemology of practice (Schön, 1995)

and suggested that this new scholarship would take the form of action research.

However, Schön pointed out two impediments to legitimizing the kinds of action

research associated with the new scholarship in the Academy. Firstly, the power of

disciplinary in-groups that have grown up in the academy around the dominant

epistemology. Secondly, the inability of scholars to make their practice into

appropriately rigorous research (Schon, 1995, p. 34). In framing my own research

design, I have taken these warnings to heart. I took account of Winter's (1989) six

criteria of rigour; dialectical critique, reflexive critique, collaborative resource, risk,

plural structure, theory, practice transformation. As for methods establishing social

validity, I included the application of Habermas' (1976) four criteria of

comprehensibility, truth, rightness and authenticity. I will discuss each of these

methods below. Whitehead points to validity as vital in all research which is

concerned with the generation and testing of theory. He points out that researchers

need to know what to use as a unit of appraisal and the standards of judgement in order to test a claim to educational knowledge (Whitehead, 1989). In addition, in submitting accounts of my own educational practice and opening my practice to evaluation by peers, I provide evidence to show how the meanings of my embodied ontological values, can become living standards of judgement in evaluating the validity of my knowledge-claims. These living critical standards of judgement include'pedagogy of the unique', and a 'web of betweenness.

Methods of action research: living educational theory approach

I will use a 'living educational theory' approach to demonstrate how embodied values can be transformed into living standards of judgement. Accounts of learning within a 'living educational theory' methodology involve expressing concerns when educational values are not lived in practice, imagining a way forward, gathering data, evaluating practice on effectiveness of actions, modifying plans in light of the evaluation, and submitting accounts of learning to a validation group in order to strengthen the validity of the account of practitioner learning.

Whitehead (1989) has formulated the following action reflections cycle for presenting claims to know one's educational development as one investigates questions of the type; 'How do I improve the process of education here?'

- I experience problems when my educational values are negated in my practice.
- I imagine ways of overcoming my problems.
- I act on a chosen solution.
- I evaluate the outcomes of my actions.

- I modify my problems, ideas and actions in the light of my evaluations...(and the cycle continues).

Whitehead has further refined the above planner into the following action plan (McNiff & Whitehead, 2002, p. 72):

- What is my concern?

- Why am I concerned?

- What do I think I can do about it?

- What will I do about it?

- How will I gather evidence to show that I am influencing the situation?

- How will I ensure that any judgements I make are reasonably fair and accurate?

- What will I do then?

Methods of rigour in living educational theory

I have developed my own educational living standards of judgements that act as criteria of my practice-based research. I also relate to Winter's (1989, pp. 38-66) criteria of rigour. His criteria are specifically related to an action research enquiry. In appraising his criteria, I reflected on the value that they might have for me as I develop my own living educational theory and support participants in developing theory from practice.

1. Dialectics:

Dialectics starts with a notion of contradiction. Through researching into my own practice as higher education educator, I have come to realise that there is a

contradiction in terms of my educational values and practice. I came to find a way of accommodating new ideas into my practice that has contributed to my professional knowledge. In this thesis, I make explicit the contradictions in my own practice and show how I have worked through dialogue with others in order to improve practice.

2. Reflexivity:

Reflexivity relates to judgements made from one's own personal experiences. By being reflexive and recognising that I am part of the research data and through exploring my own practice with the intention of improving, I show how I am part of the research.

3. Collaborative Resource:

The participants in an action research project are seen as co-researchers. In my thesis, different voices emerge: my own voice, the voice of teachers on professional development programmes, the voice of my supervisor, and the various voices that emerge from the literature.

4. Risk

Risk is an essential element of any change process. Through my research, I bring a new form of knowledge into the academy through my supervision of living educational theory Master's degree dissertations. In doing this, I have had to engage with other points of view with respect to what constitutes valid research. In attempting to contribute to the legitimisation of 'living educational theory' research within the academy, there have been risks and challenges to established cultures. By communicating my work, I have attempted to overcome these risks and challenges.

5. Plurality:

A plural form of research requires a plural form for reporting. The thesis will include a multiplicity of viewpoints which will be represented using different forms of multimedia representation; email correspondences, online learning dialogues, video clips, audio clips, and electronic portfolio work in the form of a website.

6. Theory, Practice and Transformation:

This means that theory and practice are not seen as two separate entities but are intertwined. Theory informs practice and practice, in turn, informs theory. In undertaking to carry out research into my own educational practice, I show how I am contributing to a knowledge base of practice, which, in turn, can inform theory. I have attempted to overcome the usual division between theory and practice by being involved in the research process and by making my practice explicit so as to make an original and unique contribution to knowledge.

Methods of validity: Habermas social validation

McNiff describes validation as "*a system that should be part of the ongoing, formative processes of action research. This is part of critical, self-reflective process. It operates when action researchers discuss their work informally with colleagues, critical friends and tutors*" (McNiff & Whitehead., 2002, p. 29). The methods I use to enhance validity of my research include Habermas' idea of social validity. Habermas (1976) states that when language is used for reaching an understanding with another the following 'musts' constitute the validity basis of such communicating action:

> *"The speaker must choose a comprehensible expression so that speaker and hearer can understand one another. The speaker must have the intention of communicating a true proposition (or a prepositional content, the existential presuppositions of which are satisfied) so that the hearer can share the knowledge of speaker. The speaker must want to express his intentions truthfully so that the hearer can believe the utterance of the speaker (can trust him). Finally, the speaker must choose an utterance that is right so that the hearer can accept the utterance and speaker and hearer can agree with one another in the utterance with respect to a recognized normative background. Moreover, communicative action can continue undisturbed only as long as participants suppose that the validity claims they reciprocally raise are justified".*
>
> (Habermas, 1976, pp. 2-3).

In creating and testing my own living educational theory, I address the above criteria. In addition, in the context of my supervision of Masters degree researchers, I have organised validation group meetings in order to provide the opportunity for each participant to present his/her work to others in the group with the purpose of developing the capacity of each individual to produce an account of his/her learning and submit it to a validation group in order to strengthen the validity of the accounts and to benefit from the ideas of others on ways to move learning forward.

I have adopted Habermas' four criteria in the form of questions. Criterion 4 has been adapted to include a question on evidence of the teacher's influence on the learning of others.

1. Is the descriptions and explanations of the practitioner-researchers' learning comprehensible?
2. Is there sufficient evidence to justify the claims being made?

3. Are the values that constitute the enquiry as 'educational' clearly revealed and justified?

4. Is there evidence of the practitioner-researchers' educational influence on the learning of others?

By relating to Winter's criteria of rigour and Habermas' criteria of validity in the context of validation group meetings, I will endeavour to ensure that my practice-based research is both rigorous and valid. In addition, in the course of my practice-based research, I develop my own living standards of judgement. I also support participants to develop their own living educational theory by asking, researching and answering the question, 'how can I improve my practice?'

Data collection techniques

New developments in ICT allow the researcher the opportunity to collect data using different media. Through this Doctoral research, I have collected data using various technologies: email correspondences, online learning dialogues, audio, video and videoconferencing recordings of live conversations.

Below, I provide a brief outline of the use I made of these different forms of technology.

Video data

I used video recordings of classroom sessions, validation meetings, and participants presenting their work. In order to make claims about my educational influence on participants, I refer to video clips. Video can show the embodied meanings that

people bring to their work, and helps us to move beyond pictures of reality to real visual pictures of reality (McNiff *et al.*, 2003, p. 127). In my experience, visual images can convey more meaning than a thousand words. Video does even more as it gives us the unfolding context and provides the lived reality of practice.

Online learning dialogues

Live dialogue through use of online learning technology provided another source of data.   In this context, I use asynchronous communication between participants and myself and participants and each other. These dialogues show the collaborative and open approach promoted of the programme.

Multimedia and web based artefacts

I refer to the multimedia and web based artefacts and supporting texts that were submitted by participants in fulfilment of their Masters Degree module project work. These artefacts embody participants' own educational values and the supporting text provides evidence of how they are critically reflecting on their practice in order to bring about improvement.

Reflective journals

Email correspondence is used to show my own reflective learning through critical incidents as I dialogue with my supervisor, Jack Whitehead. I also use my own reflective journals as I document my own learning throughout my research.

Videoconferencing

During this research, I have used videoconferencing technology to communicate with Jack Whitehead at the University of Bath. Through videoconferencing technology, participants were able to discuss their research with Jack who was able to respond in real time. This enabled them to share their research work with an international expert in the field of action research.

Ethics of the research

This research process has been a collaborative enquiry, involving me, as higher education educator and participants on the M.Sc. in Computer Applications for Education and M.Sc. in Education and Training Management (ICT). The nature of the enquiry involved a relationship of trust between participants and myself.

I outlined the purpose and aims of the research to participants and invited them to participate in an action research enquiry into each of our practice contexts. The process of the enquiry involved each of us sharing with one another our crucial reflection on our practice. This was done during face-to-face contact, through online dialogue and through the development of multimedia and web based artefacts.

Permission to quote the dialogues of participants was greatly appreciated and reflects the nature of trust and mutuality that existed between us. Permission was also granted to use video clips of sessions in the thesis. The voice of participants have been an essential part of my research and they were asked to give feedback to validate my claims. I have asked participants for permission to video the sessions and to draw on specific material for inclusion in my Doctoral research.

Conclusion

In this chapter, I have sought to outline the evolving scholarship concerned with educational research methodology. I hope that my appraisal of the various forms of contributions to improvement of practice through research by several authors I discuss, will explain why I have been particularly drawn toward an action research approach. I hope that this discussion also explains why I found a 'living educational theory' approach to action research to be especially satisfying and consonant with my teaching/learning process. In the following chapters, I intend to use this approach in my practice-based research.