Appendix D

Creating a Pedagogy of the Unique through a Web of Betweenness

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Introduction

My thesis examines the growth of my educational knowledge and development of my practice, as higher education educator. It sets out to report on this research and to explain the evolution of my educational influence in my own learning, the learning of others and in the education of social formations. The context of my research was the collaborative process that developed between myself and participants on the M.Sc. in Computer Applications for Education and M.Sc. in Education and Training Management (ICT) at Dublin City University (DCU). Within this context, I work with a sense of research-based professionalism, seeking to improve my practice through using a 'living educational theory' approach that has sustained me in asking, researching and answering the question; 'How do I improve my practice?' This has enabled me to critically examine my own assumptions and values.

I clarify the meaning of my embodied values in the course of their emergence in my practice-based research. My values have been transformed into living standards of

judgement that include a 'web of betweenness' and a 'pedagogy of the unique'. The 'web of betweenness' refers to how we learn in relation to one another and also how ICT can enable us to get closer to communicating the meanings of our embodied values. I see it as a way of expressing my understanding of education as 'power with', rather than 'power over', others. It is this 'power with' that I have tried to embrace as I attempt to create a learning environment in which I, and participants (this is how I describe students on the postgraduate programmes), can grow personally and professionally. A 'pedagogy of the unique' respects the unique constellation of values that each practitioner-researcher contributes to a knowledge base of practice.

As a researcher, I have supported practitioners in bringing their embodied knowledge and values into the public domain as they design, develop and evaluate multimedia and web based artefacts for use in their own practice contexts. This has involved the supervision of Master degree 'living educational theory' enquiries. My PhD enquiry has been a professional journey that has involved risks, courage and challenges, but I have learned that in creating my 'pedagogy of the unique', I learn and grow, recognising the contribution I myself make as an individual, and also recognising the contribution dialogue, participation and collaboration with others achieves.

Rationale of my research enquiry

In my practice-based research, I demonstrate how I am contributing to a knowledge base of practice by creating my 'living educational theory'. This involves me in systematically researching my practice in order to bring about improvement (Farren, 2004, 2005; Farren and Whitehead, 2005).

Whitehead (1989, 2003) claims that values are embodied in our educational practice and their meanings can be communicated in the course of their emergence in practice. He encourages us to account for our own educational development through the creation of our 'living educational theory' and using our values as living standards of judgement we can judge the validity of our claims to educational knowledge. I intend to analyse my educational influence in terms of the transformation of my embodied knowledge into public knowledge, by showing my educational influence in my own learning, the learning of others and on the education of social formations.

Framing my research within the context of literature on practice-based research My research is timely as there is now a growing interest in applied and practice-based research. In a UK discussion document entitled 'Assessing Quality in Applied and Practice-based Educational Research', Furlong and Oancea point to different models of educational research. They claim that action research as a model "challenges any simplistic distinction between 'pure', 'applied' and 'strategic' research" (Furlong and Oancea, 2005, p. 8). They suggest that practice-based research can contribute to theoretical knowledge production as well as bringing about improved practice. The future of educational research in the UK is likely to be guided by the results of the Research Assessment Exercise (RAE) 2008. The UK Governments RAE 2008 states that researchers should be able to submit applied and practice-based research that they consider to have achieved 'due standard of excellence'.

Where researchers in higher education have undertaken applied and practicebased research that they consider to have achieved due standards of excellence, they should be able to submit it to the RAE in the expectation that it will be assessed fairly, against appropriate criteria.

(RAE 2008, par. 47)

Boyer (1990), the past President of the Carnegie Foundation of Teaching and Learning, based at Stanford University, urged academics to move beyond the teaching versus research debate. He identified forms of scholarship that moved beyond the scholarship of discovery (research). These included the scholarship of integration, scholarship of application and scholarship of teaching. Boyer pointed toward a more rounded view of what it means to be a scholar: "a recognition that knowledge is acquired through research, through synthesis, through practice, and through teaching" (Boyer, 1990, p.24). In 1995, Schön pointed out that if teaching is to be seen as a form of scholarship then the practice of teaching must be seen as giving rise to new forms of knowledge (Schön, 1995, p.31).

Lee Shulman, current President of the Carnegie Foundation of Teaching believes that the key to improvement in teaching lies in a conception of teaching as a scholarly endeavour.

A scholarship of teaching will entail a public account of some or all of the full act of teaching – vision, design, enactment, outcomes, and analysis – in a manner susceptible to critical review by the teacher's professional peers and amenable to productive employment in future work by members of the same community.

(Shulman, 2004, pp. 149-150)

Shulman, has been instrumental in creating an advanced study centre called the Carnegie Academy for teachers who engage in the scholarship of teaching in ways that make their work public and available for critical evaluation, in a form that others can use, build upon, and move beyond. This involves university academics engaging in sustained inquiry into their teaching practice and their students' learning. The Carnegie Foundation has created the Knowledge Media Laboratory (KML), a web based resource of teaching and learning artefacts [WWW1]. Shulman points out that if pedagogy is going to be an important part of scholarship there must be evidence of it, "it must become visible through artefacts that capture its richness and complexity" (Shulman, 2004, p. 142).

Issues around knowledge and how teachers can contribute to a knowledge base of practice are evident in contributions to Educational Researcher. The following articles are relevant to this debate. In 2001, Snow wrote the following in her presidential address, "Knowing what we know: children, teachers, researchers'

The Knowledge resources of excellent teachers constitute a rich resource, but one that is largely untapped because we have no procedures for systematizing it. Systematization would require procedures for accumulating such knowledge and making it public, for connecting it to bodies of knowledge established through other methods, and for vetting it for correctness and consistency. If we had agreed-upon procedures for transforming knowledge based on personal experiences of practice into "public knowledge, analogous to the way a researcher's private knowledge is made public through peer-review and publication, the advantages would be great.

(Snow, 2001, p.9).

In June/July (2002) Hiebart et al. wrote in their article, 'A knowledge base for the teaching profession: what would it look like and how can we get one?'

To improve classroom teaching in a steady, lasting way, the teaching profession needs a knowledge base that grows and improves. In spite of the continuing efforts of researchers, archived research knowledge has had little effect on the improvement of practice in the average classroom. We explore the possibility of building a useful knowledge base for teaching by beginning with practitioners' knowledge. We outline the key features of this knowledge and identify the requirements for this knowledge to be transformed into a professional knowledge base for teaching.

(Hiebart et al., 2002: 3).

Contribution of Information and Communications Technology (ICT)

It is worthwhile, at this stage, outlining the contribution ICT has offered to the development of my educational knowledge, and in particular, to the development of new standards of educational judgement. ICT has been used to complement and support my pedagogy as it unfolds. Some examples in the context of my research include; digital video to record my teaching and Masters supervision, online learning environments that have sustained ongoing dialogue among participants and myself, desktop videoconferencing that has opened up the classroom environment and provided opportunities to share our knowledge with others; email correspondences; multimedia and web based artefacts ICT has enabled us to design, develop and evaluate for use in teaching. This research is publicly available on my website and has been accredited at Masters degree level at Dublin City University [WWW2].

Educational values

I explain how the educational values that emerge in the course of my practice-based research have become living standards of judgement. These standards and values include a 'web of betweenness' and a 'pedagogy of the unique'. 'Pedagogy of the unique' is characterized by the recognition that each individual has a particular and distinctive constellation of values that motivate their enquiry and sets a distinctive context within which enquiry proceeds. The 'Web of Betweenness' refers to my belief that we learn in relation to one another. It refers also to how ICT can bring us closer to the meanings of our embodied values. I have been influenced by the Irish theologian John O'Donohue's (2003, pp. 132-133) use of the term 'web of betweenness'. O' Donohue refers to the Celtic imagination and how a person's nature was revealed in experience. However he sees this idea of experience as comprising more than the action of the individual – it represents the life of the individual woven into the lives of others. "In the intuitive world-view of the Celtic Imagination, the web of belonging still continued to hold a person, especially when times were bleak." (ibid, p. 132).

O' Donohue reminds us that

in Catholic theology, there is a teaching which is reminiscent of this. It has to do with the validity and wholesomeness of the sacraments. In a case where the minister of the sacrament is unworthy, the sacrament still continues to be real and effective because the community of believers supplies the deficit. It is called the ex-opere-operoto principle. From the adjacent abundance of grace, the Church fills out what is absent in the unworthiness of the celebrant. Within the embrace of folk culture, the web of belonging supplied similar secret psychic and spiritual shelter to the individual. This is one of the deepest poverties in our times. That whole 'web of betweenness' seems to be unravelling. It is rarely acknowledged anymore, but that does not mean that it has ceased to exist. The 'web of betweenness' is still there but in order to become a presence again, it needs to be invoked. As in the rainforest, a dazzling diversity of life-forms complement and sustain each other. There is secret oxygen with which we unknowingly sustain one another. True community is not produced. It is

invoked and awakened. True community is an ideal where the full identities of awakened and realized individuals challenge and complement each other. In this sense individuality and originality enrich self and others.

(O' Donohue, 2003, pp. 132-133)

David Smith (2001, p.271) asks "Why should it be important to consider the question of what sustains us?" In my opinion, this question is at the very basis of ontology, of one's being in and toward the world. An appreciation of one's ontological position seems a vital step in clarifying the meanings of our values in the course of their emergence in practice.

1. Learning as relational

I believe that learning is relational i.e. we learn in relation to one other. I try to foster and create a collaborative learning environment. I believe that learning requires the qualities of openness, sharing and trust. In my work with participant, I have tried to articulate my own educational values. This was not easy to do at the start but I realised that in order to enable teachers to articulate their educational values, I needed to openly share my values with them. Trust is an important quality in creating and sustaining a collaborative learning environment. I have endeavoured to trust my own embodied knowledge by enquiring into my practice in order to bring about improvement. It would have sometimes been easier to fall back upon didactic methods. I have constantly endeavoured to maintain my trust that each participant would learn in turn to trust their own embodied knowledge as they develop their practice.

2. Creating narratives of our own learning

I value each participant's creativity, enquiring mind and critical judgement. I believe that it is vital to listen to the needs of participants and to build a curriculum in collaboration with them. I believe that it is important to provide space for each of the participants to articulate their concerns and ideas as they develop their practice. I have endeavoured to support practice-based research since the start of my work in higher education. This has involved risk as I was bringing a new form of scholarship into the academy. I had to justify the methodology and ensure that the research was carried out in a valid and rigorous fashion.

3. Developing a dialogic education

I believe that dialogue is fundamental to the teaching and learning process. I believe that each participant has a unique contribution to make to a knowledge base of practice. I am conscious of the need for participants to have the space to develop their own voice. I try to provide this space, both in the classroom and online, where people can create knowledge in collaboration with one another. I have endeavoured to involve participants in dialogue with myself, one another and others.

I have tried to support dialogue through face-to-face class sessions, validation

4. Communicating teaching as a scholarly activity

meetings, and through the use of an online learning environment.

I believe that practice-based research is a form of scholarly research. In the course of my doctoral research, I have reviewed a number of national and international reports concerned with teaching and learning in higher education. I have paid close attention in my research to the various forms of pedagogy in higher education in order to secure

a better understanding of the relevant literature. This has enabled me to appreciate the strongly innovative thrust of much of the emerging scholarship dealing with teaching and learning in higher education. I have presented my practice-based research at national and international conferences. I have also made presentions at conferences with participants on the Masters programme. In each instance, I have benefited from the discussions that my papers have generated with them. Participants come from various contexts and I try to support each participant/ teacher from where they are starting from in their learning.

5. Using ICT in a creative way

My teaching practice and my research enquiry have been founded on the belief that ICT can be used in a creative way. Participants on DCU postgraduate programmes come from various contexts and I try to support them towards the development of their own multimedia and web based artefacts for use in their own practice as a substitute for ready-made software. I try to keep up-to-date with new developments in technology. On three occasions I have successfully applied for funding from the DCU Teaching and Learning Awards body. These have enabled me to introduce new and emerging technologies into the programme thereby providing a broader curriculum for teachers. I try to involve representatives from industry, education and research in order to develop the programme and its reputation.

Pedagogies for higher education: a dialogue with the literature on pedagogy in higher education

Although higher education is beginning to include a wider and broader range of students, Zukas and Malcolm assert that adult education is still regarded as belonging to a separate sphere from higher education proper even when adult education is provided through universities (Zukas and Malcolm, 2002, p. 1). They found that the new specialism of teaching and learning in higher education had developed without reference to adult education. Neglecting the strongly self-motivated adult learner has tended to impoverish many current approaches to teaching and learning.

In their review of the literature, Zukas and Malcolm focus on the pedagogic 'identities' or versions of the educator, which represent the range of understandings of pedagogic work in 'mainstream' higher education literature. They focus on pedagogic writings in adult education and other established sectors of education, and the pedagogies emerging in the field of higher education. Their study was mainly UK based but also included sources from throughout the anglophone world, and to a lesser extent from European writings originating in the UK.

They identify five pedagogic identities in the literature surveyed:

- 1. The educator as critical practitioner.
- 2. The educator as psycho-diagnostician and facilitator of learning.
- 3. The educator as reflective practitioner.
- 4. The educator as situated learner within a community of practice.
- 5. The educator as assurer of organisational quality and efficiency; deliverer of service to agreed or imposed standards.

Zukas and Malcolm (ibid, p. 9) point out that the current version of pedagogy in higher education has come about due to the split between disciplinary and pedagogic communities in higher education and the split between research-based and pedagogic communities of practice. Thus teaching was seen as a separate activity to research. With the increase in a diverse study body, there is a need for "differing strategies necessary to enable diverse adults to learn different things in different settings in different ways." (Hanson, 1995, p. 105). The idea of one overarching theory for teaching and learning does not seem appropriate to accommodate the diverse student body now in higher education.

Developments in Technology

Myers (1996, p.3) points to the emerging technologies that are a result of research in human-computer interaction. These extend from the mouse pointing device, windows, computer applications such as drawing, text editing and spreadsheets and hypertext, and to the new technologies of the future, such as multimedia and 3D, gesture recognition, natural language and collaborative learning technologies. Myers believes that user interfaces will most likely be one of the main 'value-added competitive advantages' of the future, as both hardware and basic software become commodities. We are still witnessing the pursuit of a developmental paradigm whose eventual outcomes can only be guessed at.

By contrast with the evident potentiality and dynamism of the new technology, studies of its impact upon teaching practices in higher education indicate that, as yet, teachers in general are making use of email and web resources but more advanced technologies, such as online learning environments and wireless solutions are only being used to a limited extent. Few in higher education are dealing in a practical manner with the new technology's central ideas about the handling of knowledge. An international comparative study on Models of Technology and Change in Higher Education was carried out by the Centre for Higher Education Policy Studies and the Faculty of Educational Science and Technology of the University of Twente in the Netherlands (Collis & van der Wende, 2002). The study found that Institution wide technological structures are now in place. However, rich pedagogical use of the technological infrastructure is still in development. Van Merriënboer *et al.* (2004, p. 13) point out that the central concept in handling of e-learning currently tends to center upon 'content'. They regret that forms of e-learning that emphasise the active engagement of learners in rich learning tasks and the active, social construction of knowledge and acquisition of skills are rare. In other words, the potential of the technology to transform the teaching/learning environment is still far from being realised in the institutions of higher education.

Living Educational Theory approach to research

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 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, 2005, p. 2)

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 of play in the determination of practices which is largely entrusted to the automatisms of the habitus.

(Bourdieu, 1990, p. 145)

The Question of Validity and Rigour

Sparkes is 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, 1997, 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, 1997, p. 220). These views can be traced back to Smith (1989, 1993, cited in Sparkes, 1997, 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.. 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 rigourous research (Schön, 1995, p. 34). In framing my own research design, I have taken these warnings to heart. I took account of Winters' (1989) six criteria of rigour. As for methods establishing social validity, I included the application of Habermas' (1972) 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 used 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 a 'pedagogy of the unique', and a 'web of betweenness.

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 date 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.

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 this process of education here?'

- I experience problems when my educational values are negated in my practice.
- I imagine ways of overcoming my problems.
- 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, 2003, 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 practitioner-researchers in developing theory from practice. Winter offers six criteria of rigour in the judgement of an action research enquiry. They include dialectics, reflexivity, collaborative resource, risk, plurality, theory, practice and transformation.

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 original and unique contribution to knowledge.

Methods of Validity: Habermas Social Validation

Mc Niff 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 et al., 2003, p. 29). The methods I use to enhance validity of my research include Habermas idea of social validity. Habermas (1972) states that when language is used for reaching an understanding with another the following 'musts' constitute the validity basis of such communicating action:

1. The speaker must choose a comprehensible expression

- 2. The speaker must have the intention of communicating a true proposition
- 3. The speaker must want to express his/her intentions truthfully so that they hearer can believe the utterance of the speaker
- 4. The speaker must choose an utterance that is right (appropriate, legitimate, justifiable)

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 practitioner-researcher to present their 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 rigourous and valid. In addition, in the course of my practice-based research, I develop my own living standards of judgement. I also support teachers to develop their own living educational theory by asking, researching and answering the question, 'how can I improve my practice?'

Conclusion

Recently, higher education has had to address many issues, including a thorough reappraisal of the teaching/learning process. The re-appraisal of the teaching and learning process inevitably raised the question whether ICT could bring about the massive productivity improvements that Governments hoped for to facilitate the shift to higher education for the masses. Having undertaken Masters' research in 1990 in the University of Bath where some very radical ideas were being discussed around about the direction that educational research should take and the relationship between research and teaching, I was well equipped to appreciate the debate that began to develop in academia around teaching and learning in higher education. When I graduated the expansion of universities in the United Kingdom was just beginning – in the Republic of Ireland, it still lay in the future. It is difficult to realise it now but that was also a time when the internet scarcely existed as a means of global communication. I have lived through the debates on university pedagogy. I have been endlessly up-dating my knowledge and skills in ICT. As the director of a postgraduate programme in ICT in education and training, I have the advantage of having perspectives upon both these developments. My experience in either direction, informed by the increasing flow of literature about practice-based research, has

enabled me to secure a fuller understanding of the continuingly crucial role of the teacher and the importance of teacher/student collaboration in the learning process. It has also enabled me to see that ICT, far from displacing the teacher, opens up new creative possibilities for participants provided that they see learning as a collaborative process not only involving teacher/student dialogue but with a wider dimension of student/student dialogue moving toward a 'web of betweenness' that ICT can facilitate.

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