

**Working with collaborative projects: my living theory of a
holistic educational practice**

by

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Abstract

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This thesis is the narrative account of my research programme that has enabled me to make my original claim to have developed a living epistemology of practice that is grounded in dialogical, holistic and creative ways of knowing. From my belief that each individual is capable of developing their potential for learning and knowledge creation, I have come to see the interconnectedness of people and their environments as a locus of learning which may be embraced through technology.

Through my research I have developed my capacity for critical engagement, especially in relation to critiquing many normative practices in dominant forms of education; specifically in terms of their underpinning technical rational ontologies and epistemologies of fragmentation. My original contributions to knowledge are to do with how I show that I can account for how I have transformed my own erstwhile fragmented epistemologies into holistic and inclusional forms of knowing and practice. From the grounds of my research-based practice, I am able to make my original claim that I have developed my living theory of a holistic educational practice, through collaborative multimedia projects, and I ground my evidence in the multimedia narrative of my research account.

A distinctive feature of my research account is my articulation of how my ontological values of love and care have transformed into my living critical epistemological standards of judgement, as I produce my multimedia evidence-based living theory of a holistic educational practice. Through working with collaborative multimedia projects, I explain how I have developed an epistemology of practice that enables me to account for my educational influence in learning.

Glossary

Ár gCeantar Project:

This was a project wherein the class investigated their own locality in terms of culture, history and geography. Its literal translation is 'Our Region' and its purpose was to provide a snapshot of life in our locality.

Curaclam Na Bunscoile (1971)

The Irish primary school curriculum from 1971 to 1999.

East/West Project

Our *East/West Project* was part of the *East/West Schools Programme* (see <http://www.leargas.ie> for more details) which is a part of the Socrates education programme. The *East/West Programme* aims to strengthen school partnership and to encourage friendship and understanding between young people in Ireland and the UK. Our *East/West Project* spanned over two years and I gathered a substantial amount of data for my research from it. It was a partnership between my class and a class in Prescott near Liverpool. The partnership began with a project about the Famine (which we abandoned) and then continued with poetry sharing via the internet and an email exchange. The two groups had two meetings, one in a water sports centre in Ireland and one in the UK near Liverpool. Our *Working as a Historian Project* was undertaken as part of this partnership.

ICP Internet based Collaborative Projects:

Internet based Collaborative Projects invite collaboration between schools, students, teachers and occasionally the wider community, utilising the internet and e-mail in the process. ICPs are about the integration of projects into the curriculum, which allow teachers and pupils the opportunity to exchange ideas, data and multimedia presentations globally on a given theme, using internet communication tools.

Learning Circles Project

This is a biannual event where groups of schools from all over the world participate in collaborative projects. We were one of a group of six schools and our objective was to share elements of our geography, culture and history with students from the other schools while exploring their history and culture through their submissions to the project. This programme utilised e-mail and postal mail and the results of the project can be seen at http://inver.org/ceantar/Learning_Circle .

NCCA

National Council for Curriculum and Assessment are the statutory body that advise the Minister for Education and Science on curriculum and assessment for primary and second level schools.

Online Expedition Project

The class followed via the internet, the daily adventures of a lone oarsman who was travelling around the world. They also communicated with him by email and satellite telephone.

PCSP

The purpose of the Primary Curriculum Support Programme (PCSP) is to mediate the Primary School Curriculum for teachers towards enabling them to implement it in their schools.

People in our Community

This was a project where the class recorded interviews with various members of the community about their work:

<http://www.iol.ie/~bmullets/community>

Primary School Curriculum (1999)

The Irish primary school curriculum from 1999 to the present day.

Sound garden

This was a project where the class recorded sounds from around the school and drew pictures with which to match the sounds: http://www.iol.ie/~sound_garden

Travel Buddy Project

This is a soft toy exchange between two classes, frequently in two different countries. A soft toy was sent to the partner school, to be 'shown around' its host country and the pupil or their parent filled in a diary and took some photographs of their experience of 'entertaining' the soft toy. The students then exchanged e-mail messages to update their partners on the latest adventures of the soft toy. At the end of the exchange, the soft toy returned to its own classroom with a diary filled with reports of the visit.

Working as a Historian

This project was part of our *East/West* collaboration. The class interviewed members of the community about life and times in the past. They used a video camera, digital camera and audio recordings as well as traditional pen-and-paper methods of recording their interviews.

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Introduction

This thesis is a celebration of my learning journey as I transform my understanding of my practice as a primary school teacher into my emergent living educational theory (Whitehead 1989). It tells the story of how, in forming a deeper understanding of my practice, I developed a living educational theory that is grounded in a living epistemology of practice. It embraces ideas around freedom, spirituality, holism, technology and community and how these elements can be nurtured through education. In presenting this thesis, I invite others to engage with my ideas, to respond to them and help me to continue my learning journey towards transforming education from a practice of domination as outlined by Chomsky (2000) into a practice of freedom (Freire 1970).

In this introductory chapter of my thesis, I will organise the text as follows:

1. What is this research about?
2. Why I did the research
3. What did I learn?
4. The potential influence of this research
5. An overview of the organisation of the material in this thesis

(0.1) What is this research about?

This thesis is a report of the research programme I undertook from September 2001 until September 2006. It is the report of the first stage of an ongoing enquiry. It tells how I, as a primary school teacher, have come to a deeper understanding of my practice, of why I work in the way I do; of how this understanding influences my work, and of the significance of this new understanding.

As I have chosen an action research approach for my research, my research is practice based, as outlined by McNiff *et al.* (2003), McNiff and Whitehead (2005b), Whitehead (1989), and Whitehead and McNiff (2006). As McNiff *et al.* (2003) explain, action research focuses on learning and embodies good professional practice and praxis; it will

hopefully lead to personal and social improvement; it is a response to a social situation; it demands critical thinking and political intention and the focus is on transformation specifically within myself. I have come to create my own living educational theory as outlined by Whitehead (1989) in the process of the research:

In living educational theories the explanations are produced by practitioner researchers in enquiries that are focused on living values more fully in the practice of enquiries of the kind ‘How do I improve what I am doing here?’

Whitehead (in McNiff *et al.* 2003, p.165)

The thesis gives an account of my learning at both theoretical and practical levels as I learn how to live my values more fully in my practice.

For many years, in my professional life as a primary school teacher, my work practices have incorporated the creation of learning opportunities, in the form of collaborative projects with other teachers and people outside the classroom, which usually include aspects of information and communication technology (see <http://www.iol.ie/~bmullets> for examples of some of these projects). My research originally took the form of a quest to understand these work practices and their educational value. The focus of my research changed as my understanding of my work emerged and as I began to develop my emergent living educational theory, which I generated from my practice. I will outline this change of focus in greater detail in the course of this thesis. I will examine how the focus changed from being an investigation into the nature of internet based collaborative projects to how I developed an understanding of how traditional technicist approaches to learning can be inadequate for many students and what I need to do so that all students can celebrate their capacity to learn. This understanding has led to my emergent new epistemology that is located in dialogical, holistic and inclusional ways of coming to know. In the research process, I have developed an understanding around these collaborative projects such that I can now perceive them as processes for developing spirituality and holism in education, as I understand it. Palmer talks about spirituality in education thus:

I see the ancient and abiding human quest for connectedness with something larger and more trustworthy than our egos - with our own souls,

with one another, with the worlds of history and nature, with the invisible winds of the spirit, with the mystery of being alive.

(Palmer 1998a, p.6)

Like Palmer, I see *connections* as being at the core of educational processes, where teacher and learner, teaching and learning are woven into a ‘communal relationship’ (Nakagawa 2000). I have learned that the projects that I undertake with my class and that feature strongly in my work practices, have gone some way towards enriching the connections between my students’ and my own learning in intellectual, artistic and natural environments. I see how these projects gave my students and myself an opportunity to engage with one another and with other people in a holistic manner as we learn together, and how technology can enhance such connections. In my thesis I explain how technology can be seen both as a functional means of communication which tends to be a dominant conceptualisation (see Livingstone and Bovill, 1999; and see also Chapter Five of this thesis) and also as a form of communicative action (Habermas 1976) through which people can come to work together with social intent.

I am now also at the point where I can show how from beginning my research from the starting point of questioning the role of technology in education, I have extended my understanding of education through generating my living educational theory of practice. This new understanding is kernel to my claim to knowledge and is at the core of this thesis. I am now submitting this claim to knowledge to public scrutiny, in the hope that the claim will be validated, in relation to identified criteria and standards of judgement. One set of criteria is to be found in the academic regulations of the University of Limerick, my validating University, which state:

A doctoral thesis must show evidence of independent enquiry, originality in the methods used and/or in the conclusions drawn and must make an appreciable new contribution to knowledge or thinking in the candidate’s field.

(University of Limerick 1999, p. 59)

I believe that my thesis demonstrates my capacity for independent enquiry, originality in the methods used and in the conclusions drawn while making a new contribution to

thinking. I have supported this claim throughout the thesis with examples and evidence drawn from my practice. I demonstrate throughout, and particularly in Chapter Six, in testing the validity of my claim to original knowledge, that I am engaging with the social criteria of comprehensibility, truth, sincerity and appropriateness as outlined by Habermas (1976) in relation to people engaging in communicative action. While addressing the academic regulations of the university I have also developed my own living epistemological standards of critical judgement (see Whitehead 2005a), which have been drawn from my ontological values, and I will use these throughout the thesis to test the validity of my claim to knowledge. (See the final section of this chapter and also Chapter Six for more details on my living epistemological standards of critical judgement).

I am claiming as my original contribution to educational theory and practice that I have developed an epistemology of practice which is informed by the fact that I know what I am doing in my practice and I know how I have come to practise in this way. I am claiming that I am developing an epistemology of practice that is grounded in dialogical, holistic and inclusional ways of knowing (Whitehead and McNiff 2006). I perceive the interconnectedness of people and their environment as a locus for learning and I believe that people can develop their own learning potential and create their own knowledge, through improving their capacity to establish and nurture relational practices. I believe that technology can be a vehicle for enhancing such interconnectedness and creativity. My new personal epistemology influences how I have come to reconceptualise my understanding of curriculum in a holistic manner, which includes ‘the spiritual dimension in life’, as suggested by the Primary School Curriculum (Ireland, Department of Education and Science 1999, p.9), as one of its key issues, through the use of dialogical and inclusional ways of knowing.

When I speak of ‘dialogical ways of knowing’, I am drawing on the thinking of Bohm (2004) as he talks about dialogue in terms of a flow of understanding that emerges between and through people. He describes how new understanding may emerge that was not present at the outset of the dialogue and that such emergent processes are creative and

crucial to creating shared meanings between people. These ideas of Bohm's support my own thinking about dialogical ways of knowing, and I am suggesting that dialogue can play an important role in how educators think about education and how learning might be approached. I am embedding Bohm's (1980) ideas around fragmentation in my thinking about dialogue also. Bohm (1980) talks about fragmentation in people's thinking and ways of being and of learning, and he says that attempts to live life in a fragmented way have brought about an imbalance such that many people now live in an environment on the brink of destruction. He also explains that fragmented thinking influences people in such a manner that they see life itself as a fragmented process. I perceive that dialogical ways of coming to know can diminish this sense of fragmentation that seems to influence many facets of modern day living, including education. I see dialogue as a form of holistic encounter, akin to Buber's (1954) ideas around seeing the whole person, as a 'Thou'. He says

To be aware of a man [sic], therefore, means in particular to perceive his [sic] wholeness as a person determined by the spirit; it means to perceive the dynamic center which stamps his every utterance, action, and attitude with the recognizable sign of uniqueness

(Buber 1954/1962 cited in Yoshida 2002, p.134).

Buber (2000) outlines two different modes of relationship: the 'I-It' and 'I-Thou' relationships. The 'I-It' relationship is an objective separate relationship where there is little human connection between the two people, and the subject and object are divided. 'I-Thou' relationships have 'no borders' (Buber 1970, p.56) and the 'I' and the 'Thou' are relational in a deeper communicative relationship. I am drawn to Buber's ideas as he acknowledges what he understands to be the essence of being human. I like to use the term 'human-ness' when referring to this sense of wholeness, where 'the "I and Thou" is a holistic, direct, mutual relationship with no subject/object separation' (Yoshida 2002, p.128). In my understanding, a key characteristic of 'human-ness' is that it is relational. The realisation of one's human-ness is the capacity to develop relationships where such relationships are grounds for personal growth. It is about engaging with wholeness of the person, accepting their human flaws and imperfections, as well as their strengths, as they create their identities in relation with others.

I am building on the thinking of Bohm (1980, 2004), Buber (2000) and Miller (1996), as I develop my living educational theory around dialogical, inclusional and holistic approaches to education. I am, however, developing and expanding on their ideas as I develop my living educational theory from my practice, as outlined by Whitehead (1989). My living educational theory is of a different form to traditional forms of education theory that engage in educational discourses solely in conceptual terms (see Pring 2000) and that are generated from the traditional disciplines of education such as the psychology, philosophy, sociology and history of education. I am critical of education theory that is embedded solely in Cartesian and technical rational epistemologies. I understand Cartesian thinking to be a form of analytic thinking, as expounded by René Descartes, which ‘consists of breaking up complex phenomena into pieces to understand the behaviour of the whole from the property of its parts’ (Capra 1997, p.19). Descartes saw mind and body as separate entities and the universe as a mechanistic entity which could ‘be understood through analysing it in terms of its smallest parts’ (Capra 1997, p.19).

Similarly, Usher (1996) reminds us that the dominant view, in education theory, is such that research that is considered to be valid ‘must come from being located outside of any context’ (1996, p.9). Such forms of theory assume that abstract theories of education should be generated by academia and should inform the practice of teaching in the classroom (see Hiebert *et al.* 2002) (although teachers rarely draw from this research-based knowledge to inform their efforts, as noted by Huberman 1989 cited in Hiebert *et al.* 2002, p.3). My form of living educational theory follows the thinking of Whitehead (1989) and is based on the living, organic and dynamic elements that constitute my practice and my understanding of my practice. Living theory, as I understand it, is *live* as it draws on and informs organic, live engagements with real people in real live situations.

As I develop my living educational theory, I am aware that my embodied values- those values that inform how I live my life and why I live as I do - are being communicated in how I work and in how I understand my work. As my theory emerges from my practice, I gain clarity around my values and see them being transformed into the living standards of

judgement (Whitehead and McNiff 2006) by which I can judge if I am living in the direction of my values.

I believe that a perception of the universe as something that is reducible to separate isolated components and which sees mind and body as separate (Miller 1996), and which informs a perception of people also as separate isolated components of a wider system from which they are separate, does not adequately address the human-ness of students in the classroom or indeed the human-ness of the teachers either. Thomas (1998) explains that the academy's persisting faith in rationality has restricted the development of less conventional ideas around knowledge generation. Thomas claims that this faith is destructive of 'imagination, curiosity and innovation' in terms of educational research (1998, p.143). Despite Thomas's thinking, I am not necessarily choosing to reject the traditional abstract education theories which were drawn from the traditional disciplines of education. I, like Whitehead (2005a), perceive living educational theory to pertain to descriptions and explanations of my practice that include insights from the traditional disciplines of education 'without being subsumed within any of the conceptual frameworks ...of the traditional disciplines of education' (2005a, p.7). Therefore, I incorporate the term 'inclusional' as characteristic of my emergent living educational theory to denote that I am choosing to include traditional abstract forms of education theory to assist my understanding of my emergent epistemology.

(0.2) Why did I undertake this research?

As I reflect on the reasons for undertaking this research, I am aware that the reasons are manifold, complex and interwoven. I will outline these reasons here in terms of (i) how I have theorised my practice, (ii) my desire to live my ontological values in my practice and (iii) how I have experienced myself as a living contradiction (Whitehead 1989). I explain how these elements come together to form strong grounds for my research which is driven by an intent towards developing a good social order, where people are mutually respectful of one another and where education is seen a pathway towards developing good social relations.

(i) How I have theorised my practice

Initially, my desire to engage with further research as I was completing my masters degree was embedded in the sense of enjoyment and satisfaction that I derived from my involvement with a masters programme in education. For my masters degree, I had investigated the role of internet based projects or Internet based Collaborative Projects (ICPs) in my work with my class (see Glenn 2000). Internet based Collaborative Projects invite collaboration between schools, students, teachers and occasionally the wider community, utilising the internet and e-mail in the process. I had engaged in my masters programme (see Glenn 2000, 2005) in some investigations around these projects so as to establish their educational value, and these investigations provided me with my initial impetus for continuing my learning journey. (See examples of these projects online at <http://www.iol.ie/~bmulleys/patty.htm> and <http://inver.org/ceantar/>).

I was drawn to an action research methodology by an intuitive sense that practitioner knowledge must be of value to other practitioners. Snow (2001), in her presidential address to the American Education Research Association, talks about the creation of a knowledge base of educator-knowledge that would be of benefit to other educators. I had perceived that much of the theory that informs education is of an abstract nature and frequently has little to do with the practical issues that arise in the everyday occurrences in the classroom. For example, in the professional education courses I attended as a trainee teacher in the early 1980s, Piagetian theories of education were considered to be kernel to successful teaching. Conway (2002) explains how much of the thinking behind *Curaclam na Bunscoile* (Ireland, Department of Education and Science 1971), was based on constructivist theories, especially those of Piaget. Yet, when I began to teach in a real classroom, I found Piaget's thinking to be somewhat redundant and sought unsuccessfully to locate examples of good practice that were located in *real* classrooms by real teachers to assist me in my teaching. Now, action research, where practitioners intervene in and improve their own learning (Whitehead and McNiff 2006), was providing me with real examples of good practice that has also been theorised. Action

research was also giving me an opportunity to theorise my own practice and to share my thinking and my practice with others who were interested in hearing my story.

These were the initial reasons for engaging in this research: that I could theorise my practice and that I would continue my investigation of internet based collaborative projects. I had barely begun to engage with my research programme, however, when I realised that the reasons for undertaking my research were more complicated and more deeply rooted than my initial thinking had indicated: even though I had undertaken the research so as to evaluate internet based collaborative projects, this focus began to transform into an emergent new epistemology for me as I began to develop my living educational theory. I no longer saw collaborative projects as being the focus of my research. Instead, as I began to engage in the critical thinking that is inherent in action research (see Winter's principles of *reflexive critique* and *dialectic critique*, Winter 1996, p.13), I began to query why I felt compelled to undertake these collaborative projects, to question what was amiss with a classroom without such projects, and how they influenced students' learning. As I asked, 'How can I improve my practice?' (Whitehead 1989) and 'How can I best understand my practice?' I began to encounter difficulties with questions of the kind, 'What is knowledge?' and, 'How do we communicate our knowledge?' and 'Whose knowledge is considered to be of value?' (see Apple 2001). Epistemological conflicts began to appear in my thinking as I struggled to clarify my emergent thinking on dialogical, holistic and inclusional ways of knowing while my epistemological stance was of a somewhat technicist nature at the same time. I struggled to answer the question, 'Why do I work in the way I do?', and I discuss how I learned from the difficulties surrounding this struggle in greater detail in Chapters One and Two. As I struggled I learned that I was the product of a system of education described by Chomsky (2000, p.24) that keeps 'people from asking questions that matter' wherein people 'learn to behave, how to dress appropriately, what type of questions may be raised [and] how to fit in (meaning how to conform)'. My practice reflected this internal confusion, with regard to my epistemological conflicts, as I grappled with new ideas with which I was then ill-equipped to engage. On one level I was encouraging my classes to engage with independent thinking and ways of working, while on another level, my own

ability for critical or independent thinking was questionable. My thesis outlines how I began to address some, but not all of these epistemological conflicts through the research process, and through a newly developed ability to think critically to query the normative accepted rules (both written and unwritten; both personal and social) that governed my practice.

(ii) My desire to live my ontological values in my practice

I was drawn to an action research methodology for my research also because I knew that it was an approach that aligned the educational commitments of the researcher closely to the researcher's own values. Whitehead and McNiff (2006) explain how

We understand our ontological values as the deeply spiritual connections between ourselves and others. These are embodied values, which we make external and explicit through our practices and theories.

(Whitehead and McNiff 2006, p.86).

The authors explain how the researcher's ontological values can transform into educational commitment. Bullough and Pinnegar (2004, p.319) also talk about the centrality of one's ontology in self study research in terms of one's being in and towards the world. I understand this transformation of my ontological values into educational commitment as drawing on my sense of morality and my capacity for creativity as I strive towards giving life to my values in my everyday dealings with others. Raz (2001) describes how a value continues to be an abstract concept until it makes meaning in someone's life and is transformed into living practice. I believe that attempting to give life to my embodied values in a practical way in my practice, is a challenging way to live. It challenges my own moral commitment to people and to my work as I ask myself, 'Am I living in the direction of my values?' The transforming of ontological values into everyday actions and work implies a moral commitment to living in the direction of my values and working towards better ways of being and relating to people.

These were the ideas that attracted me to engaging in action research; I was drawn to the idea of 'deeply spiritual connections' (Whitehead and McNiff 2006, p.86), the sense of holism and being at-one with the world, that was embedded in them. Yet, as I began to

engage in the processes of my research, I realised that not only did I experience difficulty with living in the direction of my values; I also found it nearly impossible to articulate what I understood my values to be. I will outline in greater detail in Chapter Two the difficulties that I encountered with articulating my values, despite my enthusiasm to live my life in their direction. Whitehead explains how in the course of an enquiry or a research process, the meanings of ontological values are clarified in the course of their emergence into practice (Whitehead 2005a). I experienced this clarification process as I engaged with my research and for now, my understanding of my ontological values is such that I can say that I value love. Enmeshed in this conceptualisation is my engagement with the human-ness of people in terms of experiencing the wholeness of the person as outlined by Miller (1996), Yoshida (2002) and others. When I refer to this engagement, I am not thinking of a utopian engagement that presumes that all people ‘live in peace, love one another and are free from ... want of any kind’ (Berlin 1990, p.20). Berlin (1998) explains that such Utopias assume that the human condition is static and therefore ‘can prove literally fatal’ (Berlin 1998, p.12). I agree with Berlin as he dismisses unrealistic utopian stances, and instead recognise that life is full of conflict and people live by many different sets of values. As part of the recognition of the human-ness of people I attempt to recognise people for who they are, not what they are. Therein, I locate my value of nurturing dialogical (Bohm 2004), holistic (Miller 1996) and inclusional ways of knowing (Whitehead 2005) and the relationality of education to present-day life processes (Crowell 2002). These values are embodied within me and in my practice. The way I work is a tentative demonstration of how I am coming to understand and articulate my values and this thesis contains the evidential base for these claims. I am aware that these values may be altered, re-shaped and transformed with each encounter I have in my life, but for now, this is how I understand them. This thesis is an articulation of my present best thinking (McNiff 1993).

My ontological values inform my work practices and my relationships with others, and they also provide me with guidelines to assess the validity of my work. Whitehead (2005a) explains how my embodied values can be transformed into the living epistemological standards of critical judgement that can be used to establish the validity

of my claim to knowledge here in this thesis. These standards, along with the traditional criteria established by the university as outlined earlier, will help demonstrate that my claim to knowledge is valid. I believe that I demonstrate academic rigour throughout this thesis, as outlined by Winter's (1989) criteria of reflexive critique, dialectical critique, risk, plural structure, multiple resources and theory practice transformation (see Chapter Six for more detail around demonstrating the validity of my theory). I show the methodological rigour of my research, and my research account by focusing on issues of establishing the validity of my tentative knowledge claims.

(iii) I undertook this research as I experienced myself as a living contradiction

Whitehead (1989) talks about how one can experience oneself as a living contradiction, when one's values are not being lived out in their lives or their practice. He also suggests that the space in which one experiences oneself as a living contradiction can provide the researcher with a good starting point for their research as they ask, 'How can I improve my practice?' For me, this was a holistic way of working and it was of the key aspects of why I chose to undertake my research. As I sought to gain understanding around my practice, I experienced conflict between what is perceived to be the normative expectations of teaching as completing textbooks, and my own ontological values around love and nurturing holistic relationships in learning. Much contemporary classroom life appears to revolve around completing textbooks (see Carr and Kemmis 1986), learning by rote and filling in workbooks, in spite of the policy recommendations by bodies such as the Department of Education and Science (see Ireland, Department of Education and Science 1999) and the National Committee for Curriculum and Assessment (see NCCA 2005) that recommend a child-centred curriculum that is grounded in enquiry learning. The recent evaluation of the implementation of the Primary School Curriculum by the inspectorate supports my view (Ireland, Department of Educational and Science 2005) and includes the following comment:

Textbooks exert a dominant influence on teaching and learning in a significant number of classrooms. In these class settings the teaching tended to be didactic, and undemanding and repetitive learning tasks were provided for the pupils. There was little emphasis on the development of higher-order thinking skills, on nurturing pupils' creativity, or on encouraging pupils to respond

emotionally and imaginatively. Teaching methodologies were restricted... and pupils were not sufficiently interested or engaged in their learning.
(Department of Educational and Science 2005, p.49)

I perceived that this finish-the-textbook approach to education not only closed down the learning process for many students, it was also incommensurate with my ontological values around engaging with the human-ness of the children in my class, of nurturing dialogical and inclusional ways of knowing and of making connections between the classroom and community and the natural environment outside. I was experiencing what Conway (2002) describes as the dominance of technical and transmission-oriented discourses with regard to pedagogy in Ireland and what Lynch (1999) refers to as a system that is problematic. My understanding of these transmission-oriented discourses is that they can restrict learning, whereas if I live and work in accordance with my values, I see learning as being emancipatory and child-centred (see also Montessori 1949, Dewey 1938). As I became aware of myself as a living contradiction, I perceived the space between my ontological values and the living out of my values as a space of creative tension that gave direction and inspiration to my research. This was an energising experience for me, as I saw this incommensurability as an indication of my own human-ness; as the space between my values and my practice, between what is and what might be.

This sense of celebrating my human-ness as a form of glorious imperfection (see Berlin 1990), as I experienced myself as a living contradiction, became a very important aspect of why I undertook my research. I looked to my own values to see how they might be best lived out in my practice and then explored the areas in need of the most improvement. I acknowledged my own imperfections and human frailty (Arendt 1998) as part of this process. As I sought to theorise my practice, the sense of acceptance of my own imperfections and frailty were transformed into a desire to engage with the human-ness of those I teach. Traditional technicist approaches to learning, such as those outlined by Skinner (1978) and Thorndike (see Zimmerman and Schunk 2003) that are embedded in an objectivist epistemology understand knowledge to be external to the knower and that the student is an empty vessel waiting to be filled (Locke, cited in Mathis *et al.* 1970,

p194). The human-ness of the student (in terms of their wholeness), their own individual learning strengths and weaknesses (see Gardner 1993), their inherent possibility for growth and their capability to become independent learners, all seem to be disregarded or inadequately acknowledged by technicist perspectives. Like Burgess, I see the traditional organisation of formal education as being ‘inimical to learning, involving as it does prescriptive, assessment-driven curricula, age-bound grouping and the remorseless provision of answers to unasked questions’ (Burgess 1998). Yet, as I engaged with the ideas of experiencing myself as a living contradiction, and as I saw these ideas being transformed into what was emerging as my living educational theory. I saw that the children I teach frequently ‘fail’ to conform to the expectations of attaining certain grades, of learning by rote and by rejecting transmission models of teaching (Holt 1970). Instead of dwelling on how the system was failing the children and how the children were perceived to ‘fail’ within the system, I chose instead to examine approaches to education that would celebrate the human-ness of each student; the imperfections that make us each individual, as I developed an epistemology of practice that acknowledged the human-ness of each of the students as, together, we developed personal and dialogical ways of knowing.

As I engaged with these life-enhancing ideas around celebrating my own imperfections as pertaining to my understanding of what it means to be human, I developed a living educational theory that addresses the human-ness of those I teach. Like Miller (1996), I see how the relationships that are developed in an educational setting can influence a wider society:

If nature is dynamic and interconnected and our education system is static and fragmented, then we only promote alienation and suffering. But if we can align the institutions with interconnection and dynamism, then the possibilities for human fulfilment increase greatly.

(Miller 1996, p.3)

I perceive my research as going some way to promoting this interconnection and dynamism. My hopes are that practitioners in institutions may be influenced and encouraged by my research. The story of my research as narrated in this thesis outlines

how I have promoted such interconnections and how it might influence the development of new institutional epistemologies (Schön 1995).

(0.3) What have I learned?

In the course of my research I have gained a deeper understanding of my work practices in that I now understand why I am drawn to creating projects for my class that include technology and extend the learning environment to people and places outside the classroom walls. I know, now, that I engage in such practices because I have learned that traditional dominant forms of knowledge are frequently of a technicist nature (Carr and Kemmis 1986) and can shut down learning (Gardner 1993) and suppress free and critical thinking for many. These insights have also helped to bring about an enormous epistemological change in me, which has influenced my practice such that it has now transformed into a form of praxis, that is, action that is informed by reflection with the aim to emancipate (Kincheloe 1991, p.177). In this section I offer explanations and descriptions of what I have learned in the course of my research programme. I will discuss my learning under the following three sections, as I perceive these to be kernel to what I have learned and how I have learned in terms of: (i) my epistemological transformation, (ii) how I have become a critical thinker and (iii) how these elements have influenced my practice so that it has now become a form of praxis which has the potential of carrying my hopes for education.

(i) My learning as the grounds for my epistemological transformation

My learning has been of an epistemological nature primarily in that I have reconceptualised how I perceive issues pertaining to knowledge, knowledge generation and the kinds of relationships that can foster knowledge generation. I have learned that many of the dominant traditional conceptualisations of knowledge are of a technical rational nature and these can frequently restrict creative and dynamic forms of learning (see Lynch 1999). I believe that many of these restrictions are located in the inadequacy of technical rationality to recognise that people are human beings and therefore are unpredictable and in process (Miller 1996). I have shifted my epistemology from locating knowledge solely in an externalist and objectivist perspective to an organic,

dynamic, personal, dialogical yet inclusional perspective. My new epistemology is exemplified in the relationships that I nurture with and for my class and in particular, through the projects we undertake. I perceive that this epistemology can be liberating for teachers and students alike when embedded in educational settings.

I have also learned how technology can assist me as I endeavour to create learning environments that nurture holistic and dialogical ways of knowing. Perhaps at some tacit level, I was initially drawn to the use of technology for this reason. I know now that I use technology in a manner that I believe enhances learning. When I speak of enhancing learning, I am not specifically referring to raised standardised test scores, as much of the educational research literature does (see Sandholtz *et al.* 1997, Kulik 1994 and Wenglensky 1998) although sometimes, my classes' test scores *are* raised. Instead, I am referring to how technology can enable holistic forms of learning (through presenting work in multimedia format perhaps instead of text solely, for example) and the making of connections between classrooms and the world outside (through e-mail or web based connections, for example). Eisner (1997) talks about the 'potential of other forms of representation for illuminating the educational worlds we wish to understand' (1997, p.4). I am developing ideas around how technology can enhance personal forms of knowing (Polanyi 1958) and how technology can be emancipatory and person-centred. Brown and Duguid (2002) explain how the social context helps people to understand how they might best use technology. My understanding of how I use technology is that I use it to enhance and strengthen the connections I endeavour to make between my classroom and the world outside. The NCCA (2004) report states:

Today, students can collaborate in real time with their peers and with experts, on global or local projects, via email, interest groups, discussion fora and so on. Video conferencing is a valuable means of communication where literacy barriers may have prevented communication in the past. Opening up the classroom to the wider world in these ways provides students with a stimulus to communicate for real purposes, and also to examine the appropriate forms of communication for the audience.

(NCCA 2004, p.54)

Palmer (1993) talks about the spirituality of education that assumes that there exists a 'hidden wholeness on which all life depends' (1993, p. xix). He perceives 'that intellect and spirit would be one, teachers and learners and subjects would be in vital community with one another, and a world in need of healing would be well served' (1993, p. xix). In a similar manner, O' Donohue (2003) talks about the 'web of betweenness' which exists as 'the secret oxygen with which we secretly sustain each other' (p.133). I believe these ideas are pertinent to my thinking around connectedness and spirituality in education as I strive to create opportunities for making 'webs' between my class and others. O'Donohue's use of the word 'web' is especially pertinent here as many of the connections that I create for my class frequently make use of the world wide web to facilitate these relationships.

As an educator, my epistemological stance is kernel to how I teach, to the relationships I nurture in my classroom and to how my classes learn. Apple (2004) talks about how schools are mechanisms through which power is maintained and how teachers frequently and unknowingly are the conductors of such power. The idea of the power-constituted nature of such relationships is commensurate with Foucault's (1980) thinking that locates power in the capillary-like actions within the relationships that people have with one another. When I examine how traditional epistemologies operate in classrooms, I see many examples of power/knowledge tensions. In traditional epistemologies, knowledge is perceived to be external to knowers and therefore the holder of the knowledge has power over the non-knower. Here, when I use the term 'power', I am drawing on Woehrle's (1992) understanding of power as domination or 'power over'. Woehrle (1992) sees power in three forms: 'power over', 'power to' and 'power with'. In traditional pedagogies, practices that are embedded in 'power over' relationships, locate the teacher as the knower; as the powerful one, and the student as the one who is powerless and acquiesces to the 'power-over' constituted nature of the classroom. The notion of the power-wielding teacher seems to be nearly Dickensian in an Ireland of the twenty-first century, yet, traditional epistemologies, which espouse didactic methodologies, are still considered to dominate educational discourses in this country, as highlighted by the *Evaluation of Curriculum Implementation in Primary School* report

(Ireland, Department of Education and science 2005). Freire talks about the nature of control-oriented relationships in learning thus:

...knowledge is a gift bestowed by those who consider themselves knowledgeable upon those whom they consider to know nothing. Projecting an absolute ignorance onto others, a characteristic of the ideology of oppression, negates education...

(Freire 2003, p.58)

Learning, in such conditions, can be difficult for children who find rote-learning difficult; who have difficulty relating to transmission models of learning; who want to develop their own personal knowledge and for those who feel diminished by situations that are dominated by relationships of power and control. It is important here to explain that while I perceive 'power over' relationships, those that seek for domination over others, as being harmful to the learning process, I believe that 'power with' relationships are important to nurture. If one understands 'power with' relationships (Woehrle 1992) as forms of personal or collective empowerment; then these are crucial for people as they develop their capacity to work towards realising their own potential and to be enabled to work towards it. Freire called this a 'liberating education' (Freire 1970) as he strove towards transforming education from a practice of domination towards a practice of freedom.

I believe that my new epistemology of educational practice goes some way to re-balancing educational relationships. If, through engaging in dialogical and holistic ways of knowing, all participants can participate equally in the conversation and everyone is listened to with respect, the dynamic of the power relationship shifts. Like Bohm (2004), I see how in dialogical ways of knowing, people are not 'playing a game against each other, but *with* each other' (2004, p.7) and learning can take place when people 'are able freely to listen to each other, without prejudice' (2004, p.3). In engaging with dialogical and holistic ways of knowing, the teacher is not perceived to be the only 'knower' and no longer do textbooks provide the sole answer to questions. Each person, whether a teacher or a student; a community member or a distant communicator by e-mail, is of equal status and they use their power in a manner that respects the other and enables others also to use

their power of agency. Like Capra, I see the world as an ‘integrated whole rather than a dissociated collection of parts’ (1997, p.6).

(ii) My learning as I have become more critical in my thinking

As I embarked on my research programme, I was unable to engage in critical thinking in great depth. I was unable to question the ‘givens’ that were embedded in how I taught and how I thought about teaching. Finishing textbooks and completing workbooks were normative expectations in the classroom and I, too, strove to fulfil these expectations. I rarely stopped to reflect on such practices or to question their value. Apple (2004) explains:

There is nothing very odd about the fact that we usually do not focus on the basic sets of assumptions which we use.....they are very difficult to formulate explicitly...However, if we are to be true to the demands of rigorous analysis, it is a critical enquiry into just such things as the routine grounds of our day to day experience that is demanded.

(Apple 2004, p.120)

However, because I have now undertaken to engage in practitioner research and to investigate my practice, I have had to engage with questions of the kind, ‘How can I improve my practice?’ (Whitehead, 1989) and ‘How can I best understand my practice?’ The difficulties that arose for me, as I grappled with these questions, were significant and I will outline these difficulties in greater detail in Chapters One and Two. I now realise that my inability to question my work practices and to engage in any but the most superficial forms of critical thinking were embedded in a lifetime of acquiescence to the norms that govern teaching at primary level. Freire (2003) suggests that schools promote obedience and passivity, that teachers learn how to conform and learn not to question and that these values are then passed on to students:

And since men [sic] “receive” the world as passive entities, education should make them more passive still, and adapt them to the world. The educated man [sic] is the adapted man, because he is better “fit” for the world.

(Freire 2003, pp.60-61)

I have now learned that I subscribed to and endorsed the normative practices of such a system and that I had conformed to the norms of this system to such an extent that I was

nearly inarticulate around being able to critique it or to explain my practice. Carr and Kemmis (1986, p.2) remind us that despite teachers having better qualifications than ever before with more opportunities for professional development, the profession continues to be conformist. This thesis explains how I have transformed myself from being an unquestioning conformist to being an agent in the creation of my own life.

One of the main areas of growth in my learning has been in how I am now more adept at thinking critically. I have also learned the importance of critical thinking. Like Freire, I have come to see how:

Bureaucracy annihilates creativity and transforms persons into mere repeaters of clichés. The more bureaucratized they become, the more likely they are to become alienated adherents of daily routine from which they can never stand apart in order to understand their reason for being.

(Freire 1998, p.117)

As I began critically to engage with my work practices, it became clear to me that a dissonance existed between my practice and my values around love and caring relationships. I saw that an injustice was being perpetrated on the children in my classroom as they were expected to conform to the norms of a standardised education system, to absorb meekly the knowledge that was to be transmitted to them (Brown 2002) and to be voiceless in a system that appears to value them mainly for their future contribution to our economy (Greene 2003). I saw how my blinkered understanding of my work practices had contributed to the closing down of learning opportunities for them. As I developed my ability to think critically, I saw that I was developing ways of teaching that helped to overcome these issues (Freire 1970). I learned that completing workbooks and finishing textbooks was perhaps not the best way of learning for many students and so became confident enough in my own work to abandon many workbooks.

Questions of the kind ‘Why do I do what I do?’ or ‘How can I improve my practice?’ (Whitehead 1989) that are kernel to action research, form part of the process of critical thinking. Tormey (2003) draws on the thinking of Freire, as he outlines the connections

between critical thinking and action. He suggests that critical thinking ‘would enable people to see through the myths, veils and lies of ideology to the truth of their situation in the world. This, in turn, would give people a basis for acting to change their world’ (Tormey 2003, p.215). I believe that my own new-found ability to engage in critical thinking has inspired my own action as I am now developing an understanding of my practice and am clarifying my values in the process of the research. McLaren (2003) says that the dialectical nature of critical thinking enables the researcher to perceive the school not ‘simply as an arena of indoctrination... or a site of instruction’ but more as a ‘cultural terrain that promotes student empowerment and self-transformation’ (2003, p.70). My new understanding of my practice and the clarification of my values has influenced my work practices as I attempt to work in the direction of my embodied values in that I now perceive my classroom as a location for creative work, for caring relationships and for self-transformation (see Noddings 1999).

Laidlaw’s (2002) ideas about how theory can help people understand what they are doing in terms of reasons are pertinent here, as the connections between theory and practice, between critical thinking and action become more apparent. As Whitehead and McNiff (2006) explain, a generative transformative process takes place between theory and practice. I see this process in how my living educational theory emerges from my practice and how my practice in turn is informed by my living educational theory. Coulter and Wiens (2002) explain how a theory-practice divide exists, and argue for moving from debates about theory and practice to how all educators can foster good judgement. They cite the work of Arendt (1964) to support their ideas around engaging in thinking and acting, without privileging either. I perceive similar transformations taking place between my critical thinking and my action as my ability to engage in critical thinking highlights the inadequacies of the system in which I work. I see, as part of my participation in living theory processes that I experience myself as a living contradiction, where my work practices are not commensurate with my ontological values. In action research approaches to research, this experience suggests an action. For me, this action is often in the form of praxis and this praxis forms the basis of the third major area of learning for me. I will discuss these ideas in the next section.

(iii) My learning around how epistemological change and critical thinking have influenced the development of my practice so that it has now become a form of praxis

Theory can inform practice and practice, in turn, can inform theory in a cyclical manner, according to Carr and Kemmis (1986). This process can then generate new theory. Praxis, according to Carr and Kemmis (1986, p.33) is ‘informed action which, by reflection on its character and consequences, reflexively changes the “knowledge-base” which informs it...praxis is “doing-action” ...it remakes the conditions of informed action and constantly reviews action and the knowledge which informs it’. Praxis has become what I now perceive to be a natural progression as I develop a new epistemology, clarifying my values and engaging in critical thinking. I am drawn to the holistic nature of theory and practice as they influence one another in an ongoing dialectic (Carr and Kemmis 1986, p.33) as I develop my living educational theory. My practice influences my emergent living theory, and as I clarify my embodied ontological values in the process of developing my living theory, they are turned into the living epistemological standards of judgement which I will use to test the validity of my claim to knowledge (Whitehead 2005a). As I test my living theory, it influences my practice as I strive to improve it, and thus the holistic cycle of praxis begins again.

I am aware that my own human frailty and the frailty of those with whom I work (Arendt 1998) frequently disrupt the transformational flow between my embodied ontological values, my practice and the living theory that emerges from it. It would be dishonest of me to say that my praxis emerges in a smooth and faultless manner. Sometimes, being human, being tired, or irritable or being less than compassionate interrupts the flow of praxis. Yet this interruption, this human intervention, sometimes gives rise to reflective moments which can change the knowledge that originally informed the praxis.

The theory/practice dilemma is discussed by Carr and Kemmis (1986) who suggest it is one of the most powerful beliefs upon which conformist uncritical thinking in educational discourses rests. They explain the dilemma thus: practice is considered to be what teachers do in their everyday work while theory is produced by researchers through their

enquiries. They call for critical reflection on these and other assumptions that have become normative in educational discourses. Schön (1995) also problematises the theory-practice dichotomy and calls for a new epistemology that takes account of practice based theory. McNiff (2005) takes Stenhouse's (1975) idea of 'teacher as researcher' further and calls for public discourses to engage with the idea of the practitioner as theorist (McNiff and Whitehead 2002) and teacher as theorist (McNiff and Whitehead 2005b).

I believe that my research, as outlined by this thesis, is such that I am a practising teacher who is also a theorist and this has been one of the greatest areas of learning for me. My research is part of what Boyer (1990) termed the 'new scholarship' as I develop my living theory and epistemology of practice. Traditional research, according to McNiff (2005c), is drawn from an epistemology that aspires to categorise and analyse using a propositional form of logic. It is frequently of an abstract and objective nature. My research is of a different form. Much of my learning is in the form of the realisation that I am a theorist who engages in practice and a practitioner who is able to theorise my practice. I have found this to be an emancipatory life-affirming experience as I have developed a confidence around my ability to engage in critical thinking, to learn to clarify my values in the course of my practice and to develop a sense of connectedness, spirituality and creativity in my work.

(0.4) The potential influence of my research

I believe my research is important to others because I am developing an epistemology of practice that is different from the traditional propositional epistemologies on which our education system is based. Traditional epistemologies view knowledge as being external, objectified and separate from the knower (see Thomas 1998). Such epistemologies are embedded in the traditional technicist discourses that uphold our education system (Conway 2002). Capra (1997) talks about the fragmented nature of Western thinking. Such fragmentation can also be found in educational settings. I see traditional epistemologies, as they draw on a Cartesian legacy, supporting such fragmentation. Evidence of fragmentation can be seen in technicist approaches to learning, in how knowledge is perceived as being external to the knower, in our schools that divide

students by gender, age or ability, in the Irish curriculum as it divides learning into discrete subject areas and even in our timetabling as learning is divided up into periods of thirty or forty minutes (Miller 1996).

My epistemology, while recognising and valuing objective forms of knowledge, is of a different nature in that I perceive knowledge also as being embedded in the knower; a personal knowledge as described by Polanyi (1958). I also understand that knowledge is organic and dynamic and can be generated within and from dialogical and dialectical relationships as outlined by Bohm (1980 and 2004). I also understand that holistic ways of knowing, that are attuned to the wholeness of the person and are connected to human community and the environment, are kernel to balanced and inclusional epistemologies (Nakagawa 2000). I believe, therefore, that my emergent epistemology goes some way towards diminishing the fragmentation that Bohm (1980) has observed and the embedded technicist discourses outlined by Conway (2002).

This is a different epistemology to traditional thinking around knowledge and knowledge generation that underpin much classroom work and educational policy. Much thinking around knowledge in schools is from a behaviourist and cognitive perspective. Skinner (1968), one of the primary proponents of behaviourism, recommends the use of reinforcers to control behaviour in the classroom. He suggests that learning will take place as the 'arrangement of contingencies of reinforcement under which children learn' (1968, p.64). He explains also how 'children do not learn much from the natural environment' (1968, p.131). This practice of presenting learning in small steps, undertaking tasks in sequence and rewarding success is common in many classrooms. Piaget proposed a schema-based theory of cognitive development (see Piaget 1972) which informed much of the thinking behind curriculum in Ireland until recently (Ireland, Department of Education and Science, *Curaclam na Bunscoile* 1971). The understanding here is such that knowledge is about the construction of meaning and is constructed by people's actions and experiences with the world. While both behaviourist and constructivist perspectives have influenced how teaching and learning in Ireland are conceptualised, and *Curaclam na Bunscoile* (1971) would have promoted a constructivist

approach, Conway (2002) maintains that transmission models of learning continued to remain dominant.

Not only is my emergent epistemology different to the behaviourist/constructivist models outlined above, it also implies a different type of dynamic in the classroom, one that perceives the student as a valid knower in their own right. Freire (2003) describes this well: ‘The teacher is no longer merely the-one-who teaches, but one who is himself [sic] taught in dialogue with the students, who in turn while being taught also teach. They become responsible for a process in which all grow’ (2003, p.63). The following example helps to elucidate such ideas:



Fig. 0.1 A screen shot of our *Holiday Brochure* project

The screen shot here at Fig. 0.1 is from our *Holiday Brochure* project. I believe that my living educational theory is important for the learning of my students, as they become potential knowledge creators in their own right. In our *Holiday Brochure* project the class designed their own (not entirely factual) brochures, promoting their locality as a possible holiday destination. They used a digital camera to take their photographs and used web page design software to make their web pages. They presented the project on the internet at <http://www.iol.ie/~bmullets/brichure/index.html>. In the practice of my classroom, I see how my emergent dialogical, holistic and inclusional epistemologies were the inspiration for these practices where the children took charge of their own knowledge generation.

The students also explored their learning in an open and creative manner as they chose their own topics for study and used technology to help them record and express their work. The class also engaged in ways of learning that appeared to be commensurate with their own learning strengths and styles as they chose themselves to present their brochures with an emphasis on pictorial recording, or to record their project in text or a mixture of both, as they so chose. Margaret, one of the students involved in the project commented, 'I prepared my brochure on the river beside our house. I never knew that was a legend about it. I think my photograph is really beautiful. I hope people look at our brochures and see how great our area is...' (data archive, 2/03/2003). I believe that this is an important aspect of my research because it demonstrates how my practice has moved away from the traditional didactic models of learning, whereby I might have 'taught' elements of local geography and expected a formal essay to establish if the class had learned what I taught them. I believe that the brochure project enabled the children to engage in forms of learning that acknowledged their own potential as knowledge generators. I am also aware that I too was a fellow learner along with my class of eleven year olds as I learned elements of local geography and history that I had not known before. Whitehead (2005a) talks about how the influence that one person attempts to exercise on another is mediated by the other's originality of mind and capacity for creative critique. I can see how, by giving the class the opportunity to create their own brochures, they began to influence one another. They also influenced me and my learning

and in this thesis I am inviting other teachers to engage with these ideas also, to take these ideas and mould them to their own needs.

I perceive my research to be of importance for many adults as I share my living educational theory with them. I am aware however that the Cartesian legacy that sees mind and body as separate is deeply embedded in normative thinking. Callan (1997) claims that ‘the reality of school-learning can be profiled with such descriptors as “primarily didactic in nature, the teacher is the primary initiator, students work alone; lessons are structured around content with a focus on factual content...”’. The concept of transmission of knowledge, whereby a teacher is transmitting the knowledge to the students is an ‘excellent example of the Behaviorist model of learning’ according to Forrester and Jantzie (1998, p.3). They continue to explain that examinations as the measurement of observable behaviours of learning, the use of rewards and punishments in our school systems, and the breaking down of the teaching into small steps, can be traced to Skinner, Thorndike and Pavlov. These ideas do not address the human-ness of the student and perceive knowledge as something external and are deeply embedded in how people think today. Polanyi (1958, p.381) talks about ‘crippling mutilations’ in reference to the embedded nature of such objectivist thinking in our society. Yet, I share my thinking with others and see the transformational potential as my ontological values are expressed in my practice and my living educational theory is shared with others (Whitehead and McNiff 2006). I believe, as I share my practice and my emergent living educational theory, that my research has the potential to encourage educators to question their practice, to critique why they do what they do and to re-examine their own epistemological stance. This would be a generative transformational process (McNiff 2005a), where my own key ideas would grow and be transformed as others engage with them and transform them.

I believe that my research also holds potential for policy implementation and change. I have developed a new conceptualisation of curriculum that may be of importance to other educators and policy-makers. I acknowledge that the principles promoted by *Curaclam na Bunscoile* (1971) to ‘promote the full and harmonious development of the child and to

make due allowance for individual difference' are in keeping with my own ideas around curriculum. The principles of the (new) Primary School Curriculum (Ireland, Department of Education and Science, 1999, Introduction) are similar: 'celebrating the uniqueness of each child and ensuring the development of the child's full potential'. However, I am also aware that discourses in Irish education have paid little attention to critiquing curricular issues (Conway 2002) and that there is little evidence of these ideas being embraced, as yet, by teachers (see Murphy 2004).

I am drawing on the ideas of Stenhouse (1975) and Elliott (1998) and from their work understand curriculum as being organic, dynamic and alive in terms of being a creative conversation between the teacher, the student and their context. I am developing an alternative interpretation of curriculum and I am inviting others who are involved in education to engage in critical reflection about their work and to liberate their thinking about curriculum and educative processes (see Morgan 2002). Whitehead talks about the process of 'educating a social formation' (Whitehead 2005b) which he describes as 'a social formation's learning to live values that carry hope for the future of humanity more fully in the rules and processes that govern its social organisation' (2005b, p.9). Some of the bodies involved in educational policy in Ireland such as the National Council for Curriculum and Assessment (NCCA), the National Centre for Technology in Education (NCTE) and the Irish National Teachers Organisation's Professional Development Unit (INTO PDU) are embracing aspects of my work practices in their documents (see INTO/NCTE 2005 and NCCA, forthcoming for example). Some of the projects I have done with my classes have been used as exemplars to demonstrate creative engagement with the Primary School Curriculum and many of my ideas are now embedded in courses for teacher professional development. I believe I am beginning to make a contribution to the education of social formations (see Chapter Seven for more details of my contribution to the education of social formations). I believe this research has the potential to change the social order in our Irish education system in a manner whereby educational values are more fully lived. In my research I am demonstrating and explaining this change from the praxis of my classroom, from my re-interpretation of curriculum and from my emergent epistemology of practice. Crowell (2002) explains: 'Both teaching and learning are part

our very humanity. They must somehow address who we are, not just what we know' (2002, p.14). Through my living educational theory I remind myself and invite others to remember our human-ness to engage in practices that address who we are and not just what we know.

(0.5) An overview of the organisation of the material in this thesis:

Here is an outline of the chapters contained in this thesis. Its structure is based on McNiff and Whitehead's (2005) interpretation of an action-reflection cycle, and the organisation of my chapters reflects the process of such an action research cycle:

- What is my concern?
- Why am I concerned?
- How do I gather evidence to show reasons for my concern?
- What do I do about the situation?
- How can I check whether any conclusions I come to are reasonably fair and accurate?
- How do I evaluate the validity of my account of learning?
- How do I modify my practice in the light of my evaluation?
- How do I explain the significance of my work?

(McNiff and Whitehead 2005b, p. 3)

Chapter One of my thesis asks 'What were my concerns?' and implicitly examines the background of the research. The chapter opens with a description of how, originally, I believed that a technician approach to teaching and learning was not only the best but was in fact the only way to teach and learn. The shattering of this illusion and the learning that occurred for me are the key issues here. In this chapter, I offer an outline of my work contexts and how the research I undertook for my masters degree provided me with the starting point for this research. The chapter also outlines the epistemological conflicts

that began to emerge in my thinking, and their realisation in practice, as I begin to discover ideas about dialogical ways of knowing. Drawing on the work of Mellor (1998) I describe the 'struggle' I experienced at this initial stage of my research. As I engaged with the question 'Why am I working in the way I am working?' my understanding of my difficulties began to emerge. This chapter contains ideas drawn from the writing of Chomsky (2000) around how teachers can be indoctrinated so as to become obedient and uncritical. The chapter concludes by saying that while I could not yet understand why I was working in the way I did, my understanding of my inability to articulate my explanations was beginning to emerge.

Chapter Two asks 'Why was I concerned?' which implicitly examines my understanding of my practice as I clarify my ontological values. I describe why I was concerned in terms of the dissonance I experienced between the external world of filling in workbooks and completing textbooks, and my own internal values around love and caring relationships in education. The chapter then outlines my values and how they have emerged and been clarified as I engage in the research process. I discuss what 'experiencing oneself as a living contradiction' (Whitehead 1989) means for me.

I came to realise that my engagement with projects that embraced technology, was a movement towards diminishing the injustices brought about by fragmented approaches to learning (Bohm 1980, Miller 2002, Nakagawa 2000) and banking systems of education (Freire 1970). The chapter also outlines how I see the Primary School Curriculum (Ireland, Department of Education and Science 1999) as being commensurate with my own embodied ontological values, although this is not unproblematic. The chapter concludes by saying that I have chosen to take action against the frequent injustices of technicist approaches to education and to take action towards creating opportunities for learning in a dialogical and creative way as I develop a better understanding of my practice.

Chapter Three addresses the question ‘What could I do about my concerns?’ and examines issues around methodology. I explain how in the process of investigating my practice, I developed an emergent living educational theory from my practice (as defined by Whitehead 1989) in the form of an epistemology of practice, which is informed by the fact that I know what I am doing in my practice and I know how I have come to practise in this way. I then outline how I was drawn to the literatures of action research, recognising that there were conflicting accounts in the literature around action research. I discuss Whitehead’s (1989) ideas around living educational theories, embodied values, communicable standards of practice and judgement and the meaning of questions of the form ‘How do I improve what I am doing here?’ I explain how, as my new epistemology evolved and changed, so too did my research questions. The chapter also summarises my claim to knowledge and I state my research question and address ethical issues and issues of securing permissions for the research.

Chapter Four asks ‘What did I do about my concerns?’ and gives descriptions and explanations of my practice. It explains how I took informed committed action to developing a praxis as a result of my understanding around my concerns and why I was concerned. My praxis took the form of developing an understanding of my work that emerged as my claim to knowledge. I am claiming that I have developed an inclusive epistemology of practice that is embedded in dialogical and holistic ways of coming to know.

My committed informed action took the form of developing an understanding of my work practices and creating an original living theory of practice from them. The recurrent themes that emerged in my research have given meaning to what I do and why I do it and I describe how they have bearing ultimately on the creation of a better society.

Chapter Five asks how I can use technology to enhance a holistic and inclusional epistemology. It examines some of the current debates around computer-based communications. The chapter also outlines how, frequently, the literatures around holistic

approaches to education engage very little with the role of technology and similarly, the literatures of technology generally do not address spirituality in education, connectedness or holism. My understanding is that technology can and does enhance holistic approaches to education and I support this claim with examples from my practice. I explain how I perceive technology not as an ‘add-on’ discrete subject in an already over-loaded curriculum, but as an aid to connectedness, creativity and self-expression. I see it as a connecting thread between the disparate parts of the curriculum, between the classroom and the outside world.

Chapter Six asks ‘How do I evaluate my work?’ and implicitly examines the epistemological and methodological justification of the research and outlines how I demonstrate the validity of my claim to knowledge. As I share my epistemology of practice with others, I demonstrate in this chapter how I assess the quality of my work, with rigour, as outlined by Winter (1996), in terms of reflexive critique, dialectical critique, risk, plural structure, collaboration and theory practice transformation and by referring to the specific standards of judgement that are drawn from my values in education. I support the validity of these claims with substantiated evidence from my practice and I offer my claim to others for public scrutiny. I explain how one’s embodied ontological values are transformed through the process of clarification into the living epistemological standards of critical judgement that can be used to test the validity of one’s claim to educational knowledge (Whitehead 2005a). The chapter then continues to explain the personal and social validation processes that I have undertaken in relation to testing my claim to knowledge.

Chapter Seven asks ‘How do I contribute to new practices and theory and to the education of social formations?’ while examining the significance and potentials of my work. Whitehead (2005a) talks about his understanding of living theory such that people can offer explanations for their educational influence in their own learning, in the learning of others and in the education of social formations. In this chapter, I address issues to do with my educational influence in my own learning, in the learning of others and in the education of social formations.

To conclude

This thesis outlines my learning journey, which has been a rich and rewarding experience for me. As I now embark on the narrative of my learning, I would like to draw the reader's attention to the idea of 'plural structure'; one of Winter's principles (1996) which he considers to be central to action research. He explains how a plural text is needed to accommodate the plural structure - the 'collection of fragments' of an action research report. In an attempt to accommodate this plurality, I am submitting evidence throughout the thesis in the form of links to web pages my classes have produced. I am also submitting a CD-ROM with this thesis which will have a digital version of this thesis which will include hyperlinks to video recordings, sound recordings and other digital elements that have been pertinent to my research. I invite readers to explore the digital version so as to gain a deeper perceptual experience (Bolter 1996) of my learning journey.