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University of Sussex

Professional Doctorate in Education

**How does student teacher research contribute to knowledge
creation within the secondary school?**

Robert Rosenthal

November 2014

"I hereby declare that this thesis has not been and will not be, submitted in whole or in part to another University for the award of any other degree."

Robert Rosenthal

Signature:

University of Sussex

Professional Doctorate in Education

**How does student teacher research contribute to knowledge
creation within the secondary school context?**

SUMMARY

The extent to which participation in research is seen as an essential part of Initial Teacher Education programmes is very variable across time and institutions. Where it is a necessary part of the programme, student teachers are expected to engage in classroom enquiry and this is considered beneficial for them, the schools involved and to others more widely. This thesis explores student teacher research as knowledge creation, how the knowledge created by examples of the University of Sussex PGCE Special Study was used by the students, their school-based mentors and professional tutors and what effect this had on the culture of the schools.

The research is presented through multiple embedded case studies derived from interviews with three participants in each of three schools: a student teacher researcher, their departmental mentor and the professional tutor. These are discussed through a micro-political lens by cross-section according to their collective role and holistically in relation to each school case. This analysis is further developed using a Bourdieusian analysis to support an understanding of how participants used the Special Studies to further their individual interests. The place of student research in the contested field of national initial teacher education policy is also discussed in order to highlight conflicted constructs of teacher professionalism.

The 'insider-outsider' binary is explored throughout the thesis and is reflected in its iterative methodology, types of knowledge, models of research, communities of practice and the researcher's own biography. Conflict and disruption are reviewed as offering creative potential and it is proposed that student teachers and their research are uniquely positioned to constitute a hybrid 'semi-insider/outsider'. It is argued that by occupying this mid-space they can make a unique contribution to their school communities and the professional knowledge of teachers. However, the extent to which this takes place will depend on the potential that agents see for student research to further their own positional interests in a contested field.

The thesis concludes that research projects can not only prepare student teachers for a research-active model of teacher professionalism, but also allow them to make an important contribution to partnership schools.

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CHAPTER ONE: INTRODUCTION

1.1 Introducing the Thesis

This thesis is about student teachers' research, how the knowledge it creates is used and impacts on the schools and teachers in their host schools as well as on the students themselves. It focuses on three case studies of the Special Study, a research assignment within the University of Sussex Postgraduate Certificate of Education (PGCE) conducted in 2011. This is a 5,000 word research-based investigation into an aspect of learning carried out during the second professional practice placement in a partnership school. Once a focus had been agreed between the student, University curriculum tutor and school-based mentor, the students collected primary data in and around the school department during the spring term. This data was used, together with the results of library research, to write a research report with conclusions.

As an academic assignment, its principle audience was the University tutor and principle beneficiary was the student researcher. However this thesis set out to investigate the extent to which it could fulfil a range of other potential benefits. How might host school departments make practical use of and benefit from the students' research? Would it have more profound attitudinal or cultural impacts on host teachers or departments? To what extent would it imbue the student teachers themselves with a commitment to classroom research as an integral part of teacher professionalism? And at a macro level, what place should classroom research hold within the teaching profession or the training for it?

I was surprised to find this a relatively un-researched area given the potential benefits that a school could derive from twelve weeks of research effort by a student teacher. My literature searches uncovered articles on a range of related issues, most numerous were articles on the impact of research engagement on student teacher reflection (Lambert, 1991; Gore and Zeichner, 1991; Zeichner and Liston, 1987; Lambe, 2011; Calderhead, 1993). Others covered the internal decision making of groups of collaborating student teachers (Dobber et al., 2009), descriptions of student teachers introducing an enquiry-led approach to the classroom (Maaranen and Krokfors, 2008), the impact of cultural immersion in African schools on Irish student teacher views of development issues (Ryan, 2012), the practical constraints facing

student teacher research (Ray, 1993), collaboration with mentors (Ong'ongo and Jwan, 2009), and finally the contribution of student teacher research to an understanding of children's worlds (Kershner and Hargreaves, 2012). But no one had considered the wider practical or attitudinal impacts of student teacher research on the host school or the student teachers' own understanding of practitioner research as a dimension of teacher professionalism.

This thesis will be of interest to anyone involved in student teacher or teacher research. Most direct beneficiaries will be mentors, student teachers and Professional Tutors. Within schools it will help mentors to maximise the contributions that student research can make to their own department by re-engaging colleagues with reflective practice; student teachers will see how the challenges of their professional practice include navigating through a complex and often contested field (Bourdieu, 1990), and that they can contribute to, as well as learn from, their school; Professional Tutors or senior managers will read how micro-politics and conflict influence, not always negatively, the school mission and re-evaluate how to make the most of student teachers' temporary membership of the school community. University tutors will be reminded of how their student teachers can contribute to partner schools, the importance of association with a University in the eyes of school colleagues and also the bridge that student teachers can provide between University and school worlds. All readers will benefit from re-considering their vision of teacher professionalism, the place of school-based research within this and how to build strong school-University partnerships.

1.2 2008-2014: The Changing Political Backdrop to this Research

The 2008-2014 period of this research has been one of significant change in education policy associated with a radical shift from a New Labour to a Conservative-Liberal coalition government resulting from the 2010 general election. These changes have affected the provision and management of schools, the National Curriculum, the organisation of Initial Teacher Education (ITE) and the definition of teacher professionalism. They have had significant effects on the focus of this thesis, and so many related debates run throughout. It is therefore necessary, before going further, to review these policy changes as the historic and political frame for my research.

When I embarked on my EdD in 2008, a New Labour government had been in power for twelve years during which time education had been made an explicit priority. The Department for Children, Schools and Families (DCSF) had just introduced the third and latest revision of the National Curriculum (DCSF, 2007). It stripped away curriculum prescription, inviting teachers to build a curriculum relevant to their pupils and placed the holistic well-being and personalised development of children at the centre giving prominence to five aspirations for child well-being that came to be known as Every Child Matters, later expressed in the legislation of the Children's Act (Parliament of the United Kingdom, 2004). The National Curriculum re-positioned subject curricula as vehicles for broader educational aims alongside a new social curriculum known as Personal Learning and Thinking Skills (PLTS); it encouraged inter-disciplinarity and imaginative use of the school timetable (Crow, 2008).

Following the 2010 General Election, the Conservative-Liberal coalition government embarked on significant and far-reaching policy changes. At a very visible symbolic level, the Department for Children Schools and Families (DCSF) was renamed the Department for Education (DfE) and the adoption of the royal crest logo in place of the DCSF's interlacing rainbow colours signalled a re-orientation to the imagery of national solidity and governmental gravitas. But more significantly, it embarked on a range of neo-liberal reforms (Exley and Ball, 2011; Ball 2012). Control and expenditure were rationalised by closing numerous educational advisory or regulatory quasi-autonomous bodies including the Training and Development Agency (TDA), the Qualifications and Curriculum Development Agency (QCDA) and the General Teaching Council for England (GTCE) while drawing their functions directly into a new section of the DfE, the National Council for Teaching and Learning (NCTL). A number of spending programmes were stopped, including Building Schools for the Future programme (BSF). Investment in teacher professional development web-sites was curtailed including Teacher Training Resource Bank (TTRB), Multiverse whose mission was to support understanding of social diversity in the classroom and Teachers TV which was the single most used and therefore significant route for teachers to access research (National Teacher Research Panel, 2011). The former DCSF priority of Every Child Matters disappeared from the DfE agenda and OFSTED's responsibility to inspect the promotion of 'Community Cohesion' was removed (DfE 2011c).

While driven by concern about Britain's standing in international league tables of educational attainment and competitiveness in a global economy (Ball, 2014), the new policy discourse focused on domestic notions of extending parental choice, freeing professionals from

unnecessary bureaucratisation, accountability and the relentless driving up of test scores. Although such aims may have held some immediate popular attraction, these policies have tended towards the fragmentation and marketisation of the education landscape (Ball, 2009, 2012, 2014). They have reduced the capacity of Local Authorities while incentivising schools to apply for academy status which draws the private sector into the funding and management of schools without electoral accountability and allows them to become partly selective (Miller, 2011), free of National Curriculum obligations and national employment agreements (Parliament of the United Kingdom, 2010). They have diverted finance to the Free School initiative, an extension of the academies programme (Miller, 2011). These policies reflected similar neo-liberal changes in other parts of the world where education has been increasingly driven by the ideological pillars of choice, marketisation and testing, part of what has been called the Global Educational Reform Movement or GERM by critics (Sahlberg, 2010, Ball, 2014). In this increasingly uneven educational landscape, schools graded as 'outstanding' by the Office for Standards in Education (OFSTED) have been invited to apply for 'Teaching School' status, positioning them as local hubs of excellence with considerable responsibility for the development of other nearby schools (National College for Teaching and Learning, 2013) thereby exacerbating the uneven landscape further.

Reform extended to the curriculum which resulted in the revised National Curriculum (DfE, 2013) for introduction to schools in 2014, characterised by identification re-emphasis on 'core knowledge' that pupils should acquire. A new English Baccalaureate was introduced as a measure of success for school league tables, constituted by a collection of GCSE grade C in the traditional subjects of English, Maths, Science, one Modern Foreign Language and History or Geography, leaving other curriculum areas with lower priority in the timetable.

Initial Teacher Education (ITE) has also undergone significant restructuring following the publication, soon after the General Election, of two DfE documents. 'The Importance of Teaching' (DfE, 2010) and 'Training our Next Generation of Outstanding Teachers' (DfE, 2011) explicitly framed teaching as a 'craft', emphasising the importance of school experience. While arguing the centrality of learning through classroom experience, the DfE began a process of transferring control and management of ITE away from Higher Education Institutions (HEI) and into schools, in spite of the fact that HEI programmes were already obliged to provide 120

days, two thirds of the time, within the classroom. This policy direction evoked *déjà vu* with a similar debate during the early 1990s when Elliott wrote:

‘Teacher trainers in the UK have been under attack from the New Right, and government policy-makers have been sufficiently influenced by its ideas to threaten the very existence of higher education-based teacher training.’ (Elliott, 1993 p.1)

This change is currently being delivered through the Schools Direct (SD) route which offers schools the choice of an HEI partner in training (DfE, 2011b) and greater control of candidate selection. Funding for SD places has been top-sliced from the ITE national budget, with HEIs suffering corresponding reductions unless they were OFSTED-graded ‘outstanding’. In 2013-14, 25% of all teacher training was organised through SD, with the figure rising to 50% for 2014-15 (DfE, 2011b) and at the time of writing, the programme appears to be on target with a corresponding fall in funded numbers for traditional University PGCE courses.

Departments of Education in HEIs may be concerned about this shift and its implications for their funding and staffing (Menter, 2013), but concern is not purely based on HEI self-interest. It has implications for the quality and consistency of ITE, stability and sustainability of teacher supply and for the model of teacher professionalism (Hulme, 2013). Critics point out that ‘The Importance of Teaching’ (DfE, 2010) is explicit about teaching as ‘craft’ and argue that this approach risks leaving teachers lacking the capacity to provide a rationale for their situation or their strategies, meaning that they are unable to articulate practical theories to guide their or others’ practice (BERA-RSA, 2014).

Meanwhile in a seemingly inconsistent parallel development, teacher research and University partnership have found a new visibility through the ‘big six’ priorities given to previously mentioned Teaching Schools which have been expected to demonstrate the sponsorship of at least one HEI. The ‘big six’ are: ITE, peer-to-peer professional and leadership development, identification and development of leadership potential, support for other schools, designation of Specialist Leaders of Education (SLEs) and significantly, research and development. It is in the last of these, research and development, in which Teaching Schools have most needed University support.

The notion of the Teaching School emerged from David Hargreaves (2012) who was commissioned by NCTL to write the influential and widely circulated article, 'Leading a Self-Improving School'. In proposing a range of measures to increase the capacity of schools and their staff, Hargreaves argued for the importance of teacher practitioner research as the means for improving teaching and generating a knowledge base relevant and useful to other teachers. Classroom research was also seen as a means to create an environment where ITE, Continuing Professional Development (CPD) and research have the potential to come together in partnership with HEIs (Hargreaves, 2012).

From this discussion it is clear that there have been tensions between different aspects of DfE policy, a not uncommon state of affairs (Ball, 2014). On one hand teaching is re-framed as a 'craft' by 'The Importance of Teaching' (DfE, 2010) but meanwhile the Teaching School 'big six' include research and development and set an expectation for teacher research, an implicitly reflective, exploratory and knowledge building activity. This paradox and the debates raised by these policy changes about the meaning of teacher professionalism provide an enduring backdrop to this thesis.

1.3 Teacher Professionalism and Teacher Research

The characteristics of the professions are that they practise a clearly defined body of knowledge, require specific training, consequent accreditation (Taylor, 2008) and controlled entry. In the case of teachers, accreditation and entry has been defined since 1998 by the then-Teacher Training Agency's (TTA) standards for Qualified Teacher Status (QTS) (Whitehead, 2011) represented in their contemporary form by the Department for Education's (DfE) Teachers' Standards (DfE, 2011a). It is perplexing to wonder how, prior to 1998 there could have existed any commonly agreed unwritten understanding of what teacher professionalism might involve beyond a sense of duty to the wider community. It is also notable that even after being written down, subsequent revisions of the Standards have cast varying emphasis and interpretations on this. For example, the 2008 revision (TDA, 2008) identified 33 capabilities, including a commitment to reflection on practice and CPD; while the 2011 revision reduced this to eight broad areas relating to classroom practice (DfE, 2011a)

which give no mention of reflective practice and allude to CPD only in illustrative guidance notes. The reduced prescription between 2008 and 2011 was framed as liberating teachers from unnecessary bureaucracy, allowing them to 'get on with the job' and exercise their professional discretion to meet their particular context. But the 2011 changes can also be seen as part of a process of de-regulation and the de-professionalisation of teaching especially when taken together with the 2012 abolitions of the GTCE and TDA.

The 2011 Teachers' Standards were well suited to the 'craft' concept of teaching. While teacher engagement in classroom research was never written down in the Standards in England and Wales, the inclusion of an explicit statement of commitment to CPD and reflection in 2008 quietly contrasts with its omission in 2011. Elsewhere in the United Kingdom, the General Teaching Council in Northern Ireland makes explicit statements about 'teacher as a researcher' and 'reflective practice'; in Scotland all beginning teachers have to 'systematically engage with research', and in Wales the inspection guidance for ITE providers gives research a prominent place (BERA-RSA, 2014). Against this background the teaching Unions, subject associations and many leaders of teacher education have called for the creation of a Royal College of Teaching to establish and monitor professional expectations which would include involvement in research as an integral dimension of reflective practice and the creation of professional knowledge.

ITE prepares people for a career in teaching. However what this preparation involves and the place of research within this will depend on the educators' model of teacher professionalism. While the Standards of the day may define this in statutory terms, there is ongoing debate about what model is implied by these Standards, and these regional discrepancies reflect this. A recent comprehensive review of Research and Teacher Education (BERA-RSA, 2014) characterises three possible models of teacher professionalism: 'Craft', 'Executive Technician' and 'Teacher Professional'. 'Craft' is understood as mastery of a sequence of effective operations for delivering knowledge. Theoretical or research based knowledge are seen as unimportant compared to learning through experience. Immersion in the classroom and observation of experienced practitioners are the dominant forms of learning as with the Teach First programme. The 'Executive Technician' may value learning from professional research which has gained a place in academia but without the professional discretion leading to its adaptation to context. The student may follow instructions to deliver what others have prescribed. In contrast to these, the 'Teacher as Professional' draws on research and technical

knowledge to inform practical strategies in the classroom, exercising judgement as to how to apply these to a given situation (BERA-RSA, 2014).

Head-teachers have varying attitudes towards the role of their teachers in creating educational knowledge through their own research engagement. Where this has been promoted it is because it has been recognised as an effective vehicle for school improvement (Halsall, 1998; Hopkins, 2001; Mincu, 2014) and it has been estimated that in 2009, 39,500 teachers were actively involved in research supported by national agencies of one kind or another (Cordingley, 2011). The concept of teacher as researcher has become well established, although it has gone in and out of fashion, since the work of Lawrence Stenhouse (1975) formulated John Dewey's (1904, 1933) ideas of co-enquiring teachers and pupils into policy in the 1970s. At the time of writing, teacher research is enjoying a renaissance through the establishment of Professional or Teacher Learning Communities (P/TLC) in schools across the country, including one third of those secondary schools within the Sussex Consortium for Teacher Education and Research (SCTER) partnership. These have adopted P/TLCs as a core strategy for school improvement by engaging all staff in classroom-based enquiry around the implementation of school-wide goals.

These schools are also involved in ITE, offering professional practice placements for students on PGCE or other QTS bearing courses and would seem ideal settings for fostering a new generation of 'Teachers as Professionals' engaging student teachers with research in a variety of ways. For example the Oxford Internship Scheme or Glasgow West Teacher Education Initiative in the UK or Professional Development Schools and Teachers for a New Era in the USA immerse students in 'clinical' programmes through which each classroom experience resembles an evidence-informed hypothesis testing enquiry (Furlong, 2013; BERA-RSA, 2014). Students engage in researching aspects of their classroom or school, making a contribution to curriculum and school development. The Sussex Special Study is another example of such student enquiry and this has been a feature of Sussex ITE in a wide range of partnership school settings.

Student teachers are at the most receptive point in their career during ITE, eager to learn given their minimal classroom experience and enquiry is from the outset central to their mind set. Unfortunately, in spite of the notions of life-long learning and on-going professional development, enquiry is seen by most qualified teachers as activity to be undertaken during ITE in order to *become* a teacher rather than as part of *being* a teacher. Theorising is commonly seen as something teachers 'grow out of rather than grow into' (Fullan, 1970 cited in Eraut, 1994 p.72). This problem needs to be addressed because, as Eraut (1994) argues:

'The most important quality of the professional teacher (is) the disposition to theorise. If our students acquire and sustain this disposition they will go on developing their theorizing capacities throughout their teaching careers, they will genuinely self-evaluate and they will continue to search for, invent and implement new ideas. Without it they will become prisoners of their early school experience, perhaps competent teachers of today, almost certainly ossified teachers of tomorrow.' (Eraut, 1994 p.71)

A framework for Early Professional Development (EPD) as a seamless continuation from ITE, followed by mid and late career CPD would seem essential for sustaining and developing the professional skills and effectiveness of teachers. Yet at the time of writing it is only just being piloted by some HEIs and the University Committee for the Education of Teachers (UCET), underlining the fragility and fluidity of notions of lifelong teacher professionalism. If teacher research is to form part of this, it must be a visible element of ITE which is sustained through EPD and CPD as an integral dimension of the profession, for as Michael Eraut argues:

'The first two or three years after qualifying are probably the most influential in developing the particular personalised patterns of practice (p.11)Both the ongoing development and diffusion of good practice depend on the capacity of mid career professionals to continue learning both on and off the job.....the problems of initial qualification cannot be considered to be independent of those of post-qualification learning nor even of those of the mid-career professional in education.' (Eraut, 1994 p.41)

1.4 A Reflexive Auto-biographical Background

This thesis has occupied a significant amount of my time over a six year period. But it captures much more of my life than that. My perspective has been shaped by many more years of experience including thirty working in education. As a researcher, I must acknowledge that my data, its analysis and presentation are all framed through my own perspective and the reader must accept this in taking meaning from the thesis. However through providing a reflexive

autobiographical account I can alert the reader to the evolution of my beliefs and values. This will allow the reader to recognise the influence of subjectivity on my research. In addition, it will beg consideration about the extent to which my own actions as an agent within the research process may have exerted their own influence on the school situations and outcomes as well as the processes of data collection and interpretation.

An attempt at reflexivity reaches deeply into our understanding of how we come to be constituted as individual human beings. The nature-nurture debate surrounding what forms our individual personalities has been a central interest for sociology and psychology in particular since the identification of the genetic double helix in 1953 (Ridley, 2003). But interest in how individuals are shaped by and fit into society can be traced much further back, for example to ancient Greece. In considering ways of being a good citizen, Aristotle (1962) identified 'dispositions' that characterise three dimensions of being a successful and valued member of society: 'episteme' or ways of knowing, 'techne' or ways of doing, and 'phronesis' or holding correct values about conduct. Individuals were seen to acquire these dispositions from nature and nurture, yet whatever the outcome in terms of the individual, society remained constant. Centuries later, social scientists have explored the mutual constitution of people and society, how we are constituted through current and prior histories of relations with others (Kemmis and Grootenboer, 2008), and concomitantly how people exert influence on the shape of society. In offering a brief auto-biography I will highlight moments of mutual constitution through which I may have exerted such agency on my surroundings.

From early childhood I developed an anti-authoritarian streak. I always identified with the under-dog in films or books. In retrospect, I now see this as linked to childhood and adolescent experiences of powerlessness amid difficult circumstances; experiences of not belonging, of feeling like an outsider in a divided home and unsympathetic schools. My anger with significant adults and an indignant desire for fairness, wanting to belong and be 'inside' translated in later years into an interest in empowerment for others as well as myself, wanting to help others belong, be stronger and more confident in controlling their lives and claiming their rights. In earlier years, it underpinned several years of being drawn into political activism. A quest for empowerment has been a recurring theme in my professional life: I wanted to teach to empower children and belong within the community and as a PGCE tutor I wanted to

pass on these values to my PGCE students. In recent years, teacher and pupil empowerment have also been the sustained focus of my EdD assignments. This conviction for equality and fairness and my self-belief may be rooted in my own feat of having left home at 16 to escape a dysfunctional family, supporting myself through evening and weekend employment while completing my A levels and going onto University. Doing the seemingly impossible gave me belief in my ability to challenge the oppression of my situation and therefore the capacity for others to do so; that individual agents can affect the circumstances around them.

My sense of being an outsider continued as a young adult and undergraduate geographer in the late 1970s both socially and intellectually, though at that time my fellow geographers represented a community which I was not sure I wanted to be part of. Within my studies I was introduced to Geography through the dominant positivist paradigm of the time which presented the world through a static and objectivist lens. I reacted against this. I was incensed by the reluctance of most geographers to recognise the dynamism of the world or to commit their own participation to any process of change. I found myself to be in a lonely minority, arguing against the orthodoxy of the time that Geography should embrace multiple cultural perspectives and value systems in a diverse world and engage in campaigns for social, political, economic and environmental change. I found some solace for my views in the newly published anthology 'Radical Geography' (Peet, 1977) but otherwise frequently found myself isolated in arguing that all geographical phenomena had intrinsically political dimensions and that power structures and human actions shaped the world. While these views have subsequently become widely accepted within the geographical community and post-modern social science as a whole, at that time Geography was still based in positivist certainties, quasi-scientific claims to objectivity and a denial of any political dimension. As my disillusionment with my geographic peers and academia grew, I focused my energy and found my belonging instead in student politics and following graduation spent three years working for campaigning organisations. Only in these circles had I found a cultural belief in the capacity of agency to influence society.

Returning to study for my PGCE at the Institute of Education in 1983-4, I encountered similar a cultural outlook as I had experienced as an under-graduate. I felt isolated both socially and intellectually although the geographical community had by this time become more tolerant of post-modern perspectives, illustrated by the ascendance of people-environment interactions,

the recognition of values (Slater, 1986) and issues-based geography (Naish, Rawling and Hart, 1986), as respectable paradigms. I found an ideological ally in Dr Frances Slater who had done much to introduce these approaches within a department still dominated by positivist geography educators. To us, Geography was the study of a changing world shaped by people's decisions, at the local and individual as well as at the governmental and board room level.

Considering this story so far, it is clear to me that my attitudes and values regarding social, economic and political issues were deeply rooted in my response to early life experiences. They also underpinned my belief that schools might be changed by their members and that even the least powerful person in a geography department, the student teacher that I was, might be an agent of change. I can also recognise a developmental interplay between my own agency and surrounding social norms and values: the support and validation Dr Slater offered legitimated my beliefs and helped me feel there was a place within an established profession of geography teaching where I could belong. At the same time, I wonder whether my lonely voice in geography seminars may have unsettled the thinking of some other students, and whether the interest and ideological allegiance of one of her students may in small part have reduced what I imagine must have been her sense of isolation and strengthened the commitment of her pioneering work.

I became a teacher in 1985, before the introduction of written standards for QTS in 1994 (Mahoney and Hextall, 2000). I entered teaching because I wanted to 'make a difference' by building pupils' capacity and self-belief. But the reality of teaching quickly tempered this idealism: the combination of workload, the expectations of curriculum delivery and exam pressure at Key Stages 4 and 5, the challenging behaviour of some of the pupils and obstacles to learning for many of them in inner London cast a shadow over my idealism. Workload curbed my enthusiasm for proselytising through Geography. Empowerment, I was discovering was harder to reach than I had anticipated, not only for the pupils but for myself as a teacher. Nevertheless, I worked in Hackney and Islington as a teacher for 21 years from 1985-2006, moving just three times and receiving great satisfaction from finding belonging in each school community.

In 2003, I took up a part time post as the Geography Curriculum Tutor at the University of Sussex, continuing to work the rest of the week in a London 6th Form College. By this time, the Royal Geographical Society and Geographical Association had embraced its 'cultural turn' in human geography alongside other social sciences (Aitken and Valentine, 2009): a post-modern, issues-based and often radical view close to my and Dr Slater's position twenty years earlier. At last I felt comfortable ideologically and valued through appointment to this new role within the geographical community. I believe we both contributed our part in building the critical mass for this change. Yet, while I was excited by the prospect of influencing a new generation of teachers see themselves as agents of social change, I struggled to adjust to my new professional identity and position.

Working there only two days a week and feeling academically under-qualified to be a University tutor, once again positioned me as an outsider, this time at the University. However, I remained a teacher for the remaining days, providing an undoubted legitimacy as a classroom insider in the eyes of my student teachers. At the University I was aware of a divide in status, staffing and conditions of service between the ITE team (mostly school-based colleagues on part time contracts) and better-favoured full time researcher colleagues. Although many in the ITE team expressed interest in participating in educational research, there was no time allocation or provision for this within their contracts, while the full time researchers had no involvement in ITE. I have subsequently come to recognise that this divide is common within HEI departments of education and reflects the perspective to be discussed later that research is a discrete profession for expert researchers (Griffiths et al., 2010). Since my arrival at Sussex in 2003, there have been some attempts to address this divide and create synergies between ITE and research, encouragement and practical support for ITE colleagues to become involved in research projects and promotion of qualifications for practitioner researchers such as this EdD.

In 2006, I left the classroom to become a full time employee of the University as schools Partnership Co-ordinator, holding an overview of school-University partnerships principally in ITE. This involved visiting every school to ensure ITE arrangements were going smoothly. The role gave me strategic overview of all our partner schools, and as the years progressed an awareness of strategic trends such as the emergence of P/TLCs. In each school I would

interface with the Professional Tutor, usually a member of the Senior Management Team (SMT) responsible for school-based ITE and CPD, providing me with an extensive and influential network of information. I quickly established good working relationships with them and attributed this success in part to my recent classroom experience and self-identification as a teacher, an insider to their world. I was also struck by the legitimacy afforded me by my University status and the intellectual authority attributed by them to the world of Higher Education. But over time while I started to feel more of an insider at the University as a full-timer, I felt correspondingly less able to claim insider identification with school-based mentors, Professional Tutors or the student teachers.

In 2008, I took a significant step in developing membership of the University community of practice by enrolling on the EdD and aspiring to be a researcher, exemplifying Dunne et al.'s comment that:

‘Identity might be thought of not as an inherited status, but a complex of choices invoked across a range of social sites that require of us some form of engagement.’(Dunne et al., 2005)

Participating in the professional doctorate affected my perception of and approach to the partnership. My partnership visits changed from focusing on ITE quality assurance to become opportunities for deeper partnership development. Meetings became an ‘information mining’ (Kvale, 2009) research activity. By asking Professional Tutors about their school’s research interests, improvement priorities, arrangements for CPD and In Service Training (INSET), I hoped to enable mutually beneficial contacts between schools and University researchers. I also came to realise over time that these meetings facilitated the influence of my own agency. I used them to promote the P/TLC model for CPD which I learnt about from visiting two pioneering partner schools. P/TLCs seemed to embody a commitment to bottom-up school improvement and teacher empowerment through teacher research. I took every opportunity during my visits to inform Professional Tutors about the P/TLC model and the work of these partners. While I cannot be certain of the causality of these conversations, the P/TLC model has proliferated across our partnership since 2008. In 2013 there were 21 P/TLCs, about a third of partner schools in Sussex. As a practitioner-researcher I had facilitated knowledge exchange and encouraged reflection on practice. In this way I contributed to the re-positioning of policy in many schools.

On a personal level my EdD has been a developmental journey, building my professional knowledge and my understanding of ontology and epistemology. This has included re-conceptualising the student teacher contribution to the practice school as being less a matter of producing new resources and more about the introduction of research culture and the values and practices of enquiry. I have engaged in debates about the nature of knowledge and models of research; communities of practice, identity and belonging; micro-politics and conflict and models of teacher professionalism. I have also found a sense of professional belonging through discovering a historical legacy for my belief in collaboration, co-enquiry and empowerment within the classroom in the work of Dewey (1933), Stenhouse (1975), Elliott (1993, 2004, 2005), Rudduck (1991, 1998) and Fielding (1995). And so this thesis has brought together aspects of my own life journey, beliefs and values with my educational career and current professional responsibilities.

Identity, belonging and in or outside positioning are recurring themes in this thesis as they have been throughout my life. It has therefore been fitting to follow a professional doctorate which recognises and values the importance of reflexivity, researcher agency and the notion of insider research. This was immediately attractive to me given my activist tendencies and desire to belong. However, it has presented membership complexity for me as a University tutor working in a school-based ITE environment. In the University context, as an ITE tutor without research experience I have explained that I was regarded as partial outsider by University research colleagues. On the other hand, in the school environment as a University tutor I was seen to lack recent classroom experience and so considered an outsider. In that context, my research was about the school-based activity of *other* people in schools where I was only an occasional visitor. I have grappled with these membership dilemmas while writing this thesis. I have been forced to reflect on how my own life experiences have affected my understanding of being inside and out; to contemplate whether there may be value to outsider status; and to explore, the possibility of being a *semi-insider* to different but overlapping worlds, occupying a bridging position which can bring mutual benefit to both (Menter, 2011). Indeed this bridging work is at the core of successful partnership, networking and mixed method research methodology.

1.5 The Research Questions

This thesis explores how the participants understood and valued the concept of knowledge creation by semi-insider and low status members of the school department, their student teachers. As their supervisor and tutor, I held high expectations from the outset that the students' research would be highly valued and make a number of contributions. But I was less sure what these would be or what degree of consensus I might find among participants. Therefore the central research question was:

'How does student teacher research contribute to knowledge creation within the secondary school context?'

To support this enquiry, *Chapter Two* discusses some significant related concepts with reference to literature. The chapter explores sociological concepts of identity, belonging and group membership with particular reference to the insider-outsider binary. It deconstructs knowledge and the knowledge creation process of research through this lens. It then gives theoretical consideration to the context of school communities of practice paying particular attention to the significance of conflict and micro-politics before finally focusing on student teachers and their particular position in the school community.

Chapter Three explains how empirical data was gathered and analysed in three partnership schools during Spring 2011. As well as outlining and justifying the approach taken, it describes and explains the development my methodological understanding, the effect this had on the research programme and my understanding of how to be a practitioner-researcher.

In analysing the research question I have found it useful to identify three supplementary questions:

1. How is the knowledge created by student teacher research used?

Here, the thesis focuses on the empirical findings from each school which are presented in *Chapter Four* in the form of a detailed narrative discussion. Within each school, the participants' use of the student teacher research is considered in turn.

2. How are the outcomes affected by contextual circumstances?

Chapter Five considers this by looking at how the interests of participants' roles (student teachers, mentors and Professional Tutors) and the micro political context of each case study

led to different outcomes in each school. It then theorises about this by adopting a Bourdieusian lens through which each school is seen as a field where participants use the student research to advance individual field positions.

3. Should initial teacher education include a research project?

Chapter Five also considers the implications of the findings for national policy, relating them to models of teacher professionalism, knowledge creation and school-University partnerships. The case is made that student teacher research offers partnerships and the future profession a unique resource.

Finally, *Chapter Six* reviews the research question and sub-questions and offers recommendations for future policy.

To summarise this introductory chapter, the thesis explores the use of student teacher research and knowledge creation in three secondary schools at a time of changing political and educational policy and contesting views about the construction of teacher professionalism. As part of a professional doctorate, it offers commentary and analysis of my subjective influence on the research, of the research process on my own professional development and identity and of the role of my own agency as a researcher within the case study schools. The research questions have been introduced with an indication of how further chapters will address these. In the next chapter, I will discuss a number of key themes with reference to literature.

CHAPTER TWO: EXPLORING THE FIELD

2.1 The Belonging of Knowledge

Identity and the desire to belong are needs that the reader will recognise as lying at the core of the human condition and the quest to understand them lies at the heart of social science. The desire to belong within the social world has been recognised as important for individual wellbeing (Baumeister and Leary, 1995) and social identity (Tajfel and Turner, 1986). Tajfel and Turner's work has been seminal in conceptualizing social identification between in-groups and out-groups, an enduring social formation which can be readily identified in all world cultures and at all scales and relates to Levi-Strauss' proposition that people see the world through binary opposites (Levi-Strauss, 1973).

For pre-historic hunters and gatherers, membership of an in-group could determine the resources and relationships that were at their disposal to ensure survival, advance their position and provide security from the dangers of other hostile and competing groups of outsiders. At the same time the very threat of outsiders was a powerful incentive to maintain an inside position to one's own group.

This crude in-group out-group binary was made more complex by the development of agricultural cultivation 7,000 years Before Present, fixed settlement and the production of agricultural surplus in Mesopotamia which was able to support new privileged artisan, military and priest classes each attributed with specialist knowledge above that of the main group (Carter and Philip, 2010). These emerging social classes within the in-group took positions which placed them both in and at the same time outside the main group experience. Thus, from these earliest days our social world has been dominated paradoxically by the dual tendencies of a need to belong whilst looking for a higher order; a symbiotic tension and dependence between inside and outside identity.

From the distinction between such social classes, the ancient Greeks came to recognise a distinction between the commonly believed state of things, the taken for granted 'seen and heard' (doxa) and a higher level of knowledge (episteme) based on the understanding that

some things could be known by priests but not by commoners and that therefore things could exist independently from our recognition of them (Sikes and Potts, 2008). This distinction has sat at the heart of ontology through the centuries and endured as the basis for contemporary positivist and realist enquiry, the search for objectivity and validity through detachment and neutrality.

From this perspective, the search for knowledge (episteme) must transcend group belief and those outside and above the main group are best placed to achieve and possess this. To this day, while ordinary people go about their lives drawing on 'common sense', 'knowledge' has been defined by a school curriculum, regulated through examinations and created by Universities. Elements of this reach into ordinary lives as a retained body of factual information remembered from school, as though knowledge were a pub quiz. However, this rarely extends to understanding how these facts came to exist, how they relate to each other or what significance any of them might have.

The Concise Oxford Dictionary reinforces this definition of knowledge by extending from 'knowing what' to 'knowing why' and introducing 'understanding': *'knowing, familiarity gained by experience; a person's range of information; theoretical or practical understanding; the sum of what is known'* (Fowler and Fowler, 1964). GCSE and A level Exam Boards in England and Wales go further by incorporating 'selection' and 'application' –the ability to use knowledge and understanding- in their 'knowledge and understanding' assessment criteria for Geography:

'Candidates recall, select and communicate detailed knowledge and through understanding of places, environments, concepts and locations at a range of scales. They use geographical terminology accurately and appropriately. They apply appropriate knowledge and understanding of a wide range of geographical concepts, processes and patterns in a variety of both familiar and unfamiliar physical and human contexts.'

(Edexcel GCSE Geography A, 2014)

Substantive subject-related knowledge such as the detailed facts or 'content' expected by an examination specification emerges from a knowledge caste, a heterogenous strata of policy

makers and academics who we can think of as an outsider group of elevated insiders evocative of a pre-historic priesthood described earlier. This knowledge is then grouped as 'propositional' or 'coded' knowledge (Bernstein, 1971), observations that can be declared in a sentence ('knowing *what*') and distinguished from the 'procedural' knowledge or the skills of how to use or apply that knowledge in practice ('knowing *how*'). At higher levels of achievement, students are increasingly expected to demonstrate an understanding of underlying processes and causation ('knowing *why*').

In school curriculum terms 'propositional knowledge' can be associated with both a 'classical humanist' (Lawton, 1983), 'neo-conservative traditionalism' or 'absolutist' (Young, 2008) tradition which seeks to transmit the content considered most important about the highest achievements of mankind to future generations selected by the knowledge caste. The balance of emphasis in the school curriculum between detailed factual content ('knowing *what*') and underlying conceptual understanding ('knowing *why*') is determined by the beliefs and values of policy makers within the knowledge caste, their vision of society and the role of education in forming this; in these terms, what knowledge needs to be learnt to realise this vision ('*what for*').

Contrasting value systems have led to different formulations of curriculum knowledge as is well illustrated by the see-sawing reforms of the National Curriculum in England and Wales. While the 1990 curriculum was notable for its emphasis on propositional detailed knowledge, subsequent reforms in 1995, 2000 and 2007 consistently reduced this while placing ever-greater emphasis on conceptual understanding and thinking skills with a concomitant shift towards the development of the student's capacity.

One interpretation of these reforms is that they represent a response to teacher dissatisfaction arising from the content overload and external dictation of the 1990 version, and attempts to re-engage their commitment through the rhetoric of re-professionalisation (Fullan, 2003) or re-incorporation of teachers into the knowledge-forming caste. Indeed, the 2007 National Curriculum reform was an exercise in the re-engagement of teachers with curriculum construction. Subject communities were invited to reflect on their bodies of

propositional knowledge and distil an essence of 'key concepts' and 'processes' which would form the statutory curriculum while the selection of illustrative detail could be determined by classroom teachers as 'curriculum makers' (DfE, 2007).

Kinder provided a helpful analogy of key concepts and processes as deep subject knowledge, the grammar of a subject, while the propositional detail selected by teachers could be seen as the vocabulary (Kinder, 2008). In contrast, the 2014 National Curriculum represents a re-orientation towards centrally prescribed propositional factual content, a marginalisation of conceptual and process-based knowledge and a re-assertion of outsider control. It has been particularly influenced by the belief that the aforementioned revisions of the school curriculum have led to a 'knowledge deficit'. From this view, there has been an inordinate emphasis on thinking skills and creativity, hence the need to bring knowledge back in (Young, 2008) and re-assert 'core knowledge' (Hirsch, 2006), a more closely prescribed set of propositional content to be taught sequentially through the school years. Hirsch has established the Core Knowledge Foundation in USA to promote this approach which is reported to have strongly influenced Michael Gove's curriculum vision (Skidmore, 2013).

Although the selection of 2014 National Curriculum knowledge resulted from a year-long consultation process with subject communities, policy makers have ultimately selected the content based on their beliefs and values regarding what best serves the national interest. This is illustrated by the identification of English, Maths, Science, Modern European Languages and History or Geography as English Baccalaureate subjects, a grouping now being used to assess school performance, to the detriment of other subjects such as Performing Arts. While 'knowledge is power' (Hobbes, 1651) we should also remember that power defines knowledge. As Bernstein observed in 1971:

'How a society selects, classifies, distributes, transmits and evaluates the educational knowledge it considers to be public reflects both the distribution of power and the principles of social control.' (Bernstein, 1971 p47)

Some have argued that the purpose of knowledge and curriculum selection is by necessity orientated towards the economic and social needs of society as seen by policy makers, a 'technical-instrumentalist' view (Bernstein, 1971; Young, 1971, 2008; Eisner and Vallance,

1974; Apple, 2014). This might be in the preparation of a universally literate, numerate and disciplined industrial workforce as it was in 19th century Britain or in the development of a creative, technologically literate, skills-rich workforce for the globalised 21st century economy (Ball, 2014). Educational reform and curriculum organisation can be seen as re-alignment to the changing economic environment (Lambert and Morgan, 2010). Bernstein (1971) argues that the organisation of school knowledge also reflects dominant social values, for example he contrasts 'collection codes' such as academic British A levels which imply weak horizontal links across departments to 'integrated codes' with cross curricular and applied knowledge such as vocational General National Vocational Qualifications (GNVQ) which imply strong horizontal links across staff and with pupils. Thus knowledge is ordered into a hierarchy of value and attributed currency reflecting the values of policy makers and this has persisted in spite of efforts to create parity of esteem dating as far back as the National Qualifications Framework of 1992 and the short-lived 2008 attempt to create a hybrid National Diploma.

Our society has followed the ancient Greek belief in a knowledge (episteme) that exists independent of our ability to recognise it and presents this as a neutral and objective contemporary school curriculum. But the very act of selection for consumption, whether by a caste of contemporary policy makers or an ancient Greek priesthood, calls its neutrality and objectivity into question since it must be based on their particular values and beliefs. The implicit subjectivity of school curriculum knowledge is elaborated by Grossman, Wilson and Shulman (1989) who have argued that teachers, a group who we can think of as classroom insiders, also imbue school knowledge with subjective and positional dimensions. In their four-part categorisation of professional teacher knowledge, they group propositional and practical knowledge together as Content Knowledge. Their three other categories offer additional dimensions for our understanding of curriculum knowledge:

- Substantive knowledge (the questions asked by a subject and its explorations; for example spatial analysis, inter-connectivity and inter-dependence in Geography)
- Syntactic knowledge (the subject as process; for example textual deconstruction as the way of doing English or Enquiry as the way of doing Geography)
- Beliefs about subject matter (how the attitudes and values of the teacher influence how the subject is presented, for example should map work in Geography or grammar in English be taught through explicit lessons or integrated into lessons on other topics).

Professional knowledge for teaching, that is the practical and theoretical knowledge that teachers need in order to teach, is similarly affected by the beliefs and values of policy makers and teacher educators. At times, politically directed outsider policies can come into conflict with currents of evidence-informed opinion within HEI departments of Education. For example, 'The Importance of Teaching' (DfE, 2010) white paper emphasises the recruitment of candidates with 'good' degrees – a reflection of their propositional subject knowledge ('knowing what'). On the other hand, University teacher educators usually believe that propositional knowledge is in itself not an indicator of the potential to teach. A teacher needs to develop pedagogic content knowledge (Schulman, 1986), an ability to deconstruct the complexity of propositional knowledge and an understanding of how its core ideas can most effectively be communicated to children thereby allowing them to re-construct it themselves (Green, 2006). Such skills and experience of working with children inside the classroom may be seen as more important than advanced mastery of a subject.

Indeed, one of the most critical aspects of the professional knowledge for teachers is to understand *how* children learn or acquire knowledge. Approaches to learning can be broadly polarised into two positions which align with outsider and insider concepts of knowledge emerging from this argument. At one pole stands a curriculum-centred model whereby learners are envisaged as empty vessels to be filled with knowledge prescribed by the outsider knowledge caste through transmission from the teacher-as-expert, a process made effective by behavioural conditioning of reward and sanction (Watson, 1925; Skinner, 1961). For behaviourists, learning is the acquisition of a new behaviour through such conditioning. Meanwhile at the other pole stands a student-centred model in which knowledge is constructed by learners themselves through carefully conceived experiences which are enabled and scaffolded by the teacher-as-facilitator (Piaget, 1958; Bruner, 1976; Vygotsky, 1962), a classroom insider who knows how to build a curriculum relevant to his/her pupils. These contrasting positions have significant political ramifications for the organisation of the classroom, school and indeed ITE; a polarity between teacher and school as holder and distributor of received knowledge and on the other hand as collaborator and partner in co-construction of knowledge. The 2014 National Curriculum's re-orientation towards prescribed and propositional outsider knowledge is suggestive of the former model where learning is a process of knowledge accumulation. Learners accumulate detail, student teachers copy competencies. There are less opportunities for learners to enquire and discover for themselves, to learn through co-construction, to step back, reflect and enjoy what we could

call 'think space'. In contrast, the latter model, with its emphasis on an active and participatory role for students and meta-cognitive dimension can be associated with the 2008 National Curriculum and continues to be an approach favoured by many HEI departments of Education.

By advocating a school-based model for ITE, 'The Importance of Teaching' (DfE, 2010) emphasised the importance of practical experience in the construction of professional knowledge. Relating this back to previous discussion about position and identity, it would appear to favour the development of classroom-insider over University-based outsider professional knowledge and there is an influential body of research that shows that knowledge is most meaningful when it is situated or context embedded and exemplified through experience (Eraut, 1994).

'The functional relevance of a piece of theoretical knowledge depends less on its presumed validity than on the ability and willingness of people to use it. This is mainly determined by individual professionals but also by the way in which the knowledge is introduced and linked to their ongoing professional concerns.' (Eraut, 1994 p.43)

Repeated cycles of practise and reflection embed skills allowing the practitioner to progress from 'novice' to 'expert' (Dreyfus and Dreyfus, 1980). However, if this practical learning is based on no more than copying modelled practice, if it lacks an underpinning theoretical basis, then it becomes a form of rote learning even though based on practice rather than publication. HEI departments of education and UCET have long since advocated a model for ITE which integrates research-informed theoretical knowledge with the professional knowledge generated by practical experience. Eraut noted in relation to studies of INSET:

'The lesson from ... three major studies of INSET in USA is that effective INSET needs to be sustained and intensive and to provide individual support in the classroom. The concomitant teacher learning is a long-term process of up to two years duration involving experimentation, reflection and problem solving. The common practice of input without follow up is bound to fail, both because it underestimates by an order of magnitude the amount of support that is needed and because it fundamentally misconstrues the nature of the professional learning process in the classroom context.' (Eraut, 1994 p. 37)

Eraut's emphasis on situated learning is clear, but is not an argument for an apprenticeship-style competency approach. Rather, it is a call for effective integration of practical inside classroom and theoretical outside knowledge which might be provided by strong partnerships between school and University in a multi-faceted process. Rhodes et al. (2004) analysed the

knowledge creation of practice and identified the need to understand the rationale behind pedagogic decision making, often informed by research-based theory, peer collaboration and personal reflection. He identified three dimensions for professional knowledge for teachers:

1. Knowledge *for* practice
2. Knowledge *in* practice
3. Knowledge *of* practice

‘Knowledge *for* practice’ can be equated to that gained from top-down CPD, University input or mentor-suggested strategies. This is an essential element as it provides practical know-how for planning and classroom strategies, together with contextual and strategic understanding which help teachers to make sense of their own experiences. ‘Knowledge *in* practice’ is then gained from personal classroom experience and reflection. But even more important is ‘knowledge *of* practice’ which involves engaging in on-going enquiry on one’s own and others’ practice through collaborative learning communities often exploring the application of external knowledge. ‘Knowledge *of* practice’ concerns the *why* rather than the *how* of teaching strategies and requires a strategic overview and underpinning rationale for professional decisions. This is evocative of Schön’s ‘reflection *about*’ as distinct from his ‘reflection *on*’ or ‘*in* action’ (Schön, 1987). The point here is that to develop an underpinning rationale and strategic overview – ‘knowledge *of* practice’ – the student teacher needs more than immersion as a classroom insider. The opportunity to step out and reflect from a distance is essential. University days during an ITE course provide this, bringing student teachers together to make sense of their experiences by articulating and sharing with peers. Further theoretical or research-informed knowledge can also provide the synthesised experiences of others who have worked in classrooms before them. The importance of integration between theory and practice, personal and collective knowledge is put by Gibbons et al. (1994) who theorised a distinction between a ‘Mode 1’ knowledge where rigid boundaries surround compartments of ‘fundamental’ (propositional) and ‘applied’ (technical) knowledge; and ‘Mode 2’ where knowledge production is ‘trans-disciplinary’, in other words there is a constant flow back and forth between the fundamental and the applied, between the theoretical and practical, between inside and outside knowledge.

Michael Young (2008) has argued that the sociological analysis of the nature of knowledge is polarised and stuck between two antithetical positions. On one hand is the ‘positivist’ or ‘absolutist’ view of knowledge, the outsider view that knowledge is ‘out there’, as represented

by 'core knowledge' and the 2014 National Curriculum. On the other hand, he identifies a 'relativist' camp, originating in the New Left sociology of the 1970s (of which he was a part) and developed by postmodernism in the 1990s for which the principle preoccupation has been to argue that knowledge is selected and constructed to represent the interests and perspectives of dominant groups and should be constructed instead around the experience of subordinate groups. In 'Bringing Knowledge Back In' (Young, 2008) he argues for 'realism', a third way which will acknowledge the socially constructed nature of knowledge but also accepts the existence of a knowledge which is greater than the knower; but rather than this being 'given' as neo-conservatives would believe, he sees knowledge as created by research and dialogue amongst Universities, school subject associations, teachers and other academic organisations that 'remain the major social bases for guaranteeing the objectivity of knowledge and the standards achieved' (Young, 2008 p32). From their professional and research collaborations emerge a triangulated body of knowledge which are both rooted in and can transcend the limitations of subjective experience or political interference.

2.2 Research Contested

The conventionally accepted process of knowledge creation is 'Research'. The Concise Oxford Dictionary (Fowler and Fowler, 1964) defines it as 'careful search or enquiry; endeavour to discover new facts etc. by scientific study of a new subject; course of critical investigation.' This definition is underpinned by the notion of logical positivism, a realist ontology and nomothetic methodology. Research is framed as a technical activity best conducted by professional researchers, experts skilled in data collection and analysis. These professional researchers can turn their attention to the subject of study and where necessary make site visits to gather data. They may focus on the boundaries of propositional knowledge or aspects of professional practice. According to this model, classroom teachers would acquire new knowledge, fill their empty vessels, by reading, attending lectures or courses where the findings of such research are presented.

This realist view of research is built on the ontological premise that the social world is a firm and testable reality underpinned by generalised rules, which the researcher seeks to uncover. By the use of samples and data sets, such research seeks to provide valid and reliable, empirical, quantifiable evidence of patterns and trends which can inform policy. While the

paradigm offers reassuring certainty (Eyben, 2013), since the 1970s there has been a growing critique of its application to the social world which has found voice in an emerging qualitative research movement (Cohen, Mannion and Morrison 2007).. The critique was summarised by Burrell and Morgan (1979) who identified five key elements. First, that in seeking a generalised picture, the specific contextual detail of parts of the picture are lost; it favours the macro over the micro. Second, it is reductionist in its tendency to quantify, as Albert Einstein is attributed to have once said 'not everything that can be counted counts, and not everything that counts can be counted'. Third, humans and society are less predictable and more complex than natural systems and a scientific technical approach can seem mechanistic and reductionist when applied to the social, failing to recognise the power of agency and submerging the individual experience or local context for the sake of the generalised pattern. Fourth, in methodological terms, isolating variables and establishing valid control samples regarding people in society is not as easy as it might be with materials in a laboratory. Fifth, claims to 'objectivity', indeed the very concept, have been challenged: the researcher brings assumptions, beliefs and values to the research design which set the parameters for possible outcomes as well as to interpretation of results. Loxley and Seerey add parody to the critique by saying: 'Only when we stop being sociologists at the end of the working day can we engage in making the world a better place as the non-researcher '(2008 p18).

There are other approaches to research which are underpinned by contrasting ontology, epistemology and methodology (Burrell and Morgan, 1979), and there are parallels with previously outlined debates regarding the nature of knowledge and how children acquire it in the classroom. An alternative qualitative or 'interpretive' approach rejects claims to the existence of universal abstract phenomena and is grounded in the particular detail of any given situation. Epistemologically, it is interested in finding out about the particular and specific case in depth rather than seeking to generalise: it favours the micro over the macro making no assumptions about shared reality and instead seeking to understand diverse views of a situation. It emphasises agency over structure. This approach sits comfortably within some aspects of the Oxford Dictionary (Fowler and Fowler, 1964) definition 'careful search or enquiry...course of critical investigation' but does not produce the quantitative evidence with the claims of scientific validity and reliability that policy makers find reassuring (Eyben, 2013) even though it may be more useful when trying to understand the complexities of a classroom or the attitudes and lives of busy teachers. The Higher Education Funding Council for England's definition is carefully worded to allow for both approaches: 'an original investigation

undertaken in order to gain knowledge and understanding; the invention and generation of ideas...where these lead to new or substantially improved insights' (HEFCE, 1999).

The move away from the realist paradigm in social science can be traced to Robert Park and others at Chicago University in the 1960s, who, like anthropologists before them, argued that to understand social groups under study, the researcher needed to be immersed in the field of their experience as a participant observer and the closer s/he became the more authentic the researcher's understanding could be. Furthermore, they considered it legitimate to take a position in conflicts, often siding with the underdog and abandoning the pseudo-neutrality of positivism (Loxley and Seery, 2008). Early proponents such as Henry Giroux united expert researchers with the researched in joint enterprise combining theory with praxis for change. He saw them *both* as insiders by virtue of their shared value orientation and pursuit of social justice (Giroux, 1983). But although anxious not to exert authority, the researcher was still the expert. Participant observation by the researcher or collaborative research involving researchers with the researched left unquestioned the researcher's expert status and resulting power. However post-colonial and critical theory challenged this privileged voice suggesting that participants might be observers themselves providing an indigenous voice rather than depending on the expert researcher to mediate meaning on their behalf (Moody, 1988). This epistemology coalesced with nascent action research culture in the form of participatory action research and became particularly popular among education, social work and health practitioners. This remains a significant approach to insider-research.

However, the concept of the insider-researcher has remained controversial. In its favour the insider is seen to provide inside knowledge and perspectives, and may be best placed to ensure research is useful for solving practitioner problems. It is ethically benign in giving voice and control to the researched and truthful since 'if it is our serious purpose to understand the thoughts of other people then the whole analysis of experience must be based on their concepts not ours' (Franz Boas cited by Feleppa, 1986). The case for the insider researcher meets head on the methodological concern that 'where an outsider is involved there will never be an uncontaminated communication' (Loxley and Seerey, 2008). Insider practitioner-research has become academically recognised in the UK since the late 1990s with the formation of professional doctorates such as the EdD, which emerged from the need for 'new

up-to-date knowledge of professional practice...in the face of government dissatisfaction that “traditional PhDs were not well matched to careers outside academia.”” (Drake and Heath, 2011 p.9). S/he should be ideally positioned to draw on both insider local knowledge and methodological expertise which otherwise might only rest with outsiders.

On the other hand, Oakley (2001) warns that practitioner research in schools may merely replace one expert system of academics with another based on a group of privileged teachers who evolve power over other groups of teachers, parents and pupils. It has been argued that extreme insiderism represents a new form of elitism in which ‘understanding becomes accessible to only a fortunate few or to many who are to the manor born...which must have a monopoly of knowledge about itself’ (Merton, 1972 p. 14). The skills needed for research may not coincide with those of professional practice and may at times be antithetical as demonstrated by Brayboy and Dehyle’s experiences as native American ethnologists where being a ‘good Indian’ involved not asking people about their lives (Brayboy and Dehyle, 2000). As a result insider research may be poor quality and of no value to anyone other than the researcher. Harris (1974), points back to the distinction between an emic account of the mental life of the researched and an etic analysis which discovers principles that exist outside their minds and which may only be identified by an outsider with a wider perspective. He argues that ‘merely allowing participants to speak with their own voices does not deal adequately with the process of generating accounts which end up in the public domain’ (Harris 1974 p331). Furthermore, it is outsider University researchers who have the expertise to access publication. The insider-outsider distinction can be seen as a contest over the production and organisation of meaning, who can do research and what counts (Loxley and Seerey, 2008).

It may help to make sense of this methodological debate if we pause to consider the purpose of research, who it should be used by and how. For example, it seems obvious that educational research should be used by teachers to improve learning. In 1996 David Hargreaves (1996a) initiated a debate about the quality and usefulness of much UK University-based educational research and called for more teacher engagement. This was followed by the Hillage (1998) and Tooley Reports (1999) both of which were critical of a disconnect between University researchers and their intended beneficiaries in schools. Emerging from this climate,

Hargreaves (1999) put forward the notion of 'knowledge creating schools', analogous with teaching hospitals where research and practice are well integrated aspects of the profession, and where teachers and University colleagues would work together within the classroom to produce educational research. Hargreaves argued that as insiders, teachers themselves know what issues need researching and are those best placed to investigate them (Hargreaves, 1999). Schools should become centres for enquiry with teachers as full research partners in the development of curriculum knowledge through 'systematic enquiry that is made public and exposed to collective criticism' (Stenhouse, 1975). However, there are important distinctions between hospitals and schools. Whereas medicine is a natural science and suited to positivist enquiry, education is a social practice. Classrooms and teenagers are unpredictable, complex and at times contradictory. Classroom enquiry therefore is likely to take a qualitative and small-scale approach, constructing 'divergent knowledge' (Schön, 1991) built on a rich understanding of the social context. This may not be immediately generalisable but would aid those seeking to understand how to manage similar situations.

At the time Martyn Hammersley challenged Hargreaves' notion in a debate which gained much attention and highlighted the contrasting epistemological perspectives outlined above. Hammersley argued that research should be produced by trained and skilled, outsider professional researchers. They could bring expertise, objectivity and distance, assuring the credibility of the research for the outside audience (Hammersley, 1997). Research was seen as a high quality commodity, which can be purchased and consumed by educationalists to enable improvements in policy and practice. Such an approach would generate 'convergent professional knowledge' (Schön, 1991) through which hard rules and generalisations might be consolidated to inform practice. Such research could claim validity and reliability and therefore be applicable and useful to schools in different contexts.

This epistemological debate regarding what constitutes research and who is best placed to conduct it continues in the 21st century. The DfE currently favours the realist view, funding proposals underpinned by positivist methodology and conducted by professional researchers, for example, Randomised Control Trials (RCT) popularised by the science journalist Ben Goldacre (2013). These are seen as scientific and reliable, yielding valid results about 'what works', pointing to generalisable conclusions and therefore representing an efficient use of

public funding. Dylan Wiliam, a proponent of teacher engagement in classroom enquiry supports the view that generalisability, validity and reliability are central to attributing research status. In a personal correspondence he wrote:

'I do not find it helpful to regard the kind of inquiry undertaken by teachers into their own practice as research. For me, the essence of research is that it transcends the context of evidence collection. This means that to do research, one needs to be trained to make enquiries in one context in such a way that the findings have relevance in others. Of course, if teachers want to become researchers in this sense, then they should be supported to do so, but I do not believe that this should be required. What all teachers should be required to do, in my view, is inquire into the improvement of their own practice. This reservation of the term "research" for attempts to produce generalisable findings is, I believe, consistent with other definitions of research (including the EU's definition for VAT purposes and the designation of certain forms of inquiry within lesson study as "research lessons")'. (Wiliam, 2013)

On the other hand, the British Educational Research Association (BERA) has continued to argue that qualitative and insider or practitioner research is of critical value to understanding and improving educational settings (Menter, 2013) and has completed a comprehensive review of the role of research in teacher education and its impact on schools (BERA-RSA, 2014). It echoes Elliott's (2004) view that what counts as credible and relevant evidence about teaching and learning is ultimately defined by the teachers who engage with it, and not by the genre by which it is carried out. Reporting his experiences with the Norwich Area Schools Consortium (NASC) research partnership, he described how tensions emerged between ideographic (the study of particular cases) and nomothetic (the study of populations) conceptions of credible and useful evidence. In Phase 1 of the project, he noted the greatest impacts resulted from ideographic studies shared among colleagues. He asserted that:

'What makes evidence credible or plausible to teachers is that it helps them to make sense of the complex triangular relationship between teaching, learning and subject matter in their classrooms. Different genres of researchcan be of equal value if they help teachers deepen their understanding of the complexity of this relationship... The studies which teachers found of little value each addressed only one or another corner of the triangle...They found it more difficult to interpret without more knowledge of what these students' teachers were doing.' (Elliott, 2004 p.274)

From this perspective, nomothetic research is less useful to teachers because it does not provide rich contextual information to help understand findings while ideographic research is:

‘Naturalistically generalisable in the sense that it is the readers who do the generalising, by discovering similarities between cases depicted and those they have direct experience of.’ (Elliott, 2004 p.274)

Teacher participation in the construction of research knowledge may also be a condition for its end usefulness, as research is most effective if teachers engage *in* rather than *with* it (Rickinson, Sebba and Edwards, 2011). Indeed, McIntyre (2008) and others (McLaughlin, 2006; Groundwater-Smith, 2004) have argued that the most effective way to engage teachers with educational research is for teachers to be producers of research themselves, building on the participatory models emerging from development studies (Chambers, 1997) and medicine (Cornwall and Jewkes, 1995). Research should not just inform teachers but be a dimension of their work which can lead to continual improvement in learning for their pupils, especially through action research: repeated cycles of pedagogic experimentation, reflection, further adaptation and repeated experimentation.

‘[This] engages, extends and transforms the self-understandings of practitioners ...action research helps practitioners to theorise their practice and transform their practice into praxis (informed committed action).’ (Carr and Kemmis in Hammersley, 1993)

Ashwin and Trigwell (2004) developed a schema (Figure 2.1) which may be useful when thinking how to incorporate practitioner and professional research and is evocative of Gibbons’ (1994) distinction between fundamental and trans-disciplinary knowledge discussed earlier. They argued that investigation of practice is an essential component of professional activity but suggested three level classifications for research, each defined by the audience of the investigation and methodology. At Level 1, teachers research their own practice for self-improvement with no audience beyond themselves; at Level 2 teachers aim to share their research with a school or network community but at Level 3 the findings are made public. As levels increase so does the gaze of scrutiny and the onus for validity and reliability. While teachers can engage with research at any level, they pointed out this needs to be planned at the design stage since it may otherwise be difficult to convert Level 1 to Level 3 at a later stage. Sadly, Elliott found teachers engaged in Level 1 research often reluctant through lack of confidence to move into the Level 3 public arena (Elliott, 2004). Both Gibbons (1994) and Ashwin and Trigwell (2004) valued a status hierarchy of research based on the degrees of open-ness to scrutiny rather than related to the particular methodological approach. Both valued increased trans-disciplinarity and openness over compartmentalisation and privacy: for

Gibbons, Mode One knowledge was compartmentalised whereas Mode Two was trans-disciplinary; for Ashwin et al. Level One was private practitioner enquiry while Level Three was public and for a wide audience.

Level	Purpose of investigation	Evidence gathering methods and conclusions will be	Investigation results in
1	To inform self	Verified by self	Personal knowledge
2	To inform a group within a shared context	Verified by those within the same context	Local knowledge
3	To inform a wider audience	Verified by those outside the context	Public knowledge

Figure 2.1: Levels of investigations showing relations between the purpose, process and outcomes of that investigation (Ashwin and Trigwell, 2004)

This model offers the possibility of interplay between levels of research and types of knowledge involving both practitioner and University researchers in an effective and sensitive partnership. Rickinson, Sebba and Edwards (2011) conducted a comprehensive review of approaches to user engagement and just as Eraut (1994) pointed to the importance of interfacing and integrating practical and theoretical knowledge, they concluded that partnership arrangements with HEIs are pivotal to success and underlined the importance of the specialist knowledge that HEIs contribute to any research process. They identified five models for user engagement evocative of a ladder of participation (Arnstein, 1969), ranging from 'feedback loops' where HEI research is presented to a school audience for feedback, to 'user-led research' where HEI tutors are deployed to support school colleagues in pursuing their own research agenda. One of their conclusions was that:

'The key to changing practices, encouraging the generation of new knowledge and the productive use of relevant new knowledge is therefore to legitimize the questioning of practices and, indeed, build such questioning into the practices themselves.' (Rickinson et.al. 2011 p.43)

They go on to call for teacher questioning to include 'reflexive analysis and discussion of values and interests' (Rickinson 2011 p. 44) rather than just of practice, echoing Grossman's (1989) inclusion of the knowledge category 'belief about subject matter'.

Insider practitioner-research is likely to have a moral, ethical or ideological dimension and this is likely to be the driver for the practitioner's engagement in enquiry in addition to his/her paid responsibilities. Andrew Gitlin's (1992) school-University partnership work in Utah set out to build the capacity, confidence in beliefs and sense of agency of teachers in partner schools, as an integral part of the programme to develop teacher enquiry. His 'Educative Research' programme was intended to:

'Bring individuals together in such a fashion that all participants have a say in setting the agenda or topic and all have the potential to benefit from the learning experience.' (Gitlin, 1992 p. 7)

It was emancipatory, encouraging participants not only to examine but also re-vision schooling. But while the focus was on schools and teacher development, the University played a vital role by convening and structuring the programme. Starting with exercises designed to elicit and foreground the participants' ideals, they were then supported in examining aspects of their own practice to recognise the gap between espoused and actual practice. One of the principles of Educative Research was to restructure the relationship between researcher and 'subject' so that instead of a one-way mining process it would become a dialogue where participants could negotiate meanings at the level of questioning and data analysis. Towards the end of his involvement he would invite the teachers to revisit their educational ideals and values and examine how they could work to realise these in their schools. Gitlin underlined the importance for teachers of stepping out of their own classroom to reflect, and the University programme provided this opportunity. This version of teacher professionalism presents teachers as active and empowered in making judgments and creating knowledge through classroom enquiry. It also provides an important partnership role for the University outsider.

Similarly, Elliott (1993), Day (1993) and Hargreaves (1993) all argued that teacher professionalism involves an ethical and moral dimension which transcended the 'technical' or 'craft' notion of the profession. A decade later, Sachs (2003) also argued in the *Activist Teaching Profession* that teacher professionalism should include a commitment to social transformation and that researching one's own classroom constitutes a dimension of this. She

envisaged a 'new' or 'transformative' professionalism and contrasted it to an 'old' craft-based model. At the centre of her transformative teacher model is 'the need for teachers to understand themselves better and the society in which they live' (Sachs, 2003 p. 14) and for schools which are open and collaborative with pupils, parents and staff working together to solve problems through enquiry. This would have implications for the organisation and culture of schools, as she writes:

'One way forward is to develop faculties based onsets of assumptions and social relations where fundamental values are enquiry, development, engagement and improvement. ...actively promote the production and circulation of new kinds of knowledge and different kinds of practice. .a new ethos concerned with establishment of a risk-taking culture whereby experimenting with the use of a variety of strategies and opportunities for teachers and academics to work together in mutually beneficial ways is rewarded and becomes part of the way we do things around here.'(Sachs, 2003 p.58-9)

While the views of Gitlin, Elliott, Day and Sachs offered radical positions regarding practitioner research and the construction of teacher professionalism, it should be recognised that their views are not universally shared across the profession. The diversity of beliefs and values to be found within any staffroom is proof of the conflict and contestation that surrounds the construction of educational knowledge or teacher professionalism. This begs the question of how we identify a community with particular characteristics that the insider belongs to.

2.3 Learning and Creating Knowledge through Communities of Practice

Teachers teach, learn and create professional knowledge as practitioners in diverse school communities. Just as a researcher should be reflexive about how their positionality influences their research, so it is important to consider how the school community context can influence the knowledge produced by teachers. Moving on from the insider-outsider debate, I now turn to consider the inside society of schools, how people gain membership of the community and how it can influence insider research.

The 'Community of Practice' (Lave and Wenger, 1991) has become a popular way of thinking about the professional learning that takes place in schools and sits comfortably with the notion of insider practitioner research. At its heart is the social constructivist view that:

‘Meaning, understanding and learning are all defined relative to actional contexts, not to self-contained structures [and] learning takes place in a participation framework, not in an individual mind.’ (Hanks, 1991 p.15)

In short, Lave and Wenger argued that professional knowledge is constructed through participation in collective experience rather than learnt by isolated individuals. As Hanks wrote in his foreword to their book:

‘Rather than defining learning as the acquisition of propositional knowledge, Lave and Wenger located learning in certain forms of social co-participation. Rather than asking what kinds of cognitive processes and conceptual structures are involved, they ask what kind of social engagements provide the proper context for learning to take place.’ (Hanks, 1991 p.14)

There is considerable variation across schools in the social engagement opportunities provided for teachers through INSET and CPD. These in turn reflect the beliefs and values of the head-teacher. While some schools follow top-down hierarchical structures, others follow flatter, collaborative bottom-up models. This decision, based on the head-teacher’s position, can have a significant impact on the professional development of teachers. As Rhodes (2004) observed:

‘Leadership and management teams should consider whether staff collaboration is facilitated or hindered by the professional development culture they have created. For example... support and development accorded to NQTs is of a much higher order in schools where the culture is one of collaboration when compared to schools with culture denoted by individualism.’ (Rhodes et al., 2004 p. 3)

In schools where collaborative teacher research is supported, this is usually structured around Professional/Teacher Learning Communities (P/TLC). Some have developed their research culture further than others and Ebbutt (2006) characterised three stages of development: emerging, established and established-embedded. A number of studies have suggested that the P/TLC model provides the essential ingredients to develop research culture through CPD: collaborative structured peer support, enquiry-oriented learning, the commitment of school leadership to provide time, resources and encouragement (BERA-RSA, 2014; Webster-Wright, 2009; Bolam et al., 2005; Vescio et al., 2008). These studies also highlighted the contribution of specialist external expertise. Indeed some have focused on the importance of University partnerships such as the Schools-University Partnership in Educational Research (SUPER) with Cambridge University (McLaughlin et al. 2006). It has been recognised elsewhere that University partnership can provide practitioner researchers with the vocabulary for and supported development of critical meta-thinking, theorizing about their own practice and the opportunity to translate individual teacher research at Ashwin and Trigwell’s Level 1 into

public knowledge at Level 3 (Torrance and Pryor, 2001). In other words, research produced in partnership may be more useful to the teacher audience than that produced exclusively within University departments (McIntyre, 2008).

P/TLCs can promote 'a culture of enquiry, questioning, searching for new ideas, critical thinking, dialogue, debate and collective problem-solving' (McIntyre, 2008 p.19) and represent the Hargreaves notion of the knowledge creating school by drawing teachers into an institutionalised process of researching their own classrooms. Participating head-teachers expect that P/TLCs will help their teachers to improve their own practice, whether through their empirical research findings or the enhanced reflectivity resulting from their engagement. Participation can also be transformative as demonstrated by Torrance and Pryor's (2001) collaborative research in primary schools.

Hopkins (2001) pointed to a triangular relationship between the performance of a school, the professional and personal health and well-being of its staff and the organisational health of a school and pointed to research that identifies aspects of organisational health to include: the ability to deal with growth and change, the ability to innovate and to act autonomously. These personal and professional qualities would be nurtured by the collective enterprise and participation in enquiry alongside the beneficial impacts on practice resulting from a P/TLC. They can be seen as an attempt to build a school culture of trust, mutual respect and a sense of collaborative community; another cultural objective, though not mutually exclusive might be of belonging, commitment and ownership of school development within a diverse staff. The origin of P/TLCs have been attributed to the work of Senge (1990) and Sergiovanni (1994), later explored in the school context (Fielding 1995, 2001) building on the established idea of the teacher as researcher (Stenhouse, 1975).

Lave and Wenger's 'Communities of Practice' have a number of implications for how we think about teacher professionalism and CPD. Most importantly, they argue that 'learning is a way of being in the social world, not a way of coming to know about it....without this engagement there will be no learning, and where proper engagement is sustained learning will occur' (Hanks, 1991 p.24). This perspective affirms teacher education as an ongoing process of

enquiry. Lave and Wenger themselves wrote 'in our view learning is not merely situated in practice –as if it were some independent reifiable process that just happened to be located somewhere; learning is an integral part of generative social practice in the lived-in world.' (Lave and Wenger, 1991 p.35). To them, learning is not merely a condition for membership, but is itself an evolving form of membership (Lave and Wenger, 1991 p.53). This is evocative of a vision of teacher professionalism based on a commitment to collaborative life-long learning and learner-centred enquiry including teacher classroom research.

This represents an alternative to a top-down approach to CPD/ INSET, during which staff are gathered to receive knowledge from outsiders, which they are then expected to implement in their own classroom. Eraut noted that where CPD is top-down it is:

'Used to prepare for organisational change ... rather than improving the quality of current professional performance. This continual focus on the new rather than on renewal promotes new knowledge which comes from outside rather than new knowledge arising from the distillation of personal experience; thus indirectly discouraging learning from experience and CPD activities which attempt to reorganise and share accumulated experience of problems and cases.' (Eraut, 1994 p12)

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In contrast P/TLCs offer a model through which:

'The practicing professionals are in a 'what ought to be done' environment. The aim is not knowledge but action. Moreover they have to believe in what they are doing, rather than question it, because they take responsibility for the consequences. The result is an essentially pragmatic orientation which stresses first-hand experience in preference for abstract principles. So there is a certain subjectivism in the approach...and a belief in the individuality of each distinct case.' (Eraut, 1994 p.52)

If they are to be effective and win the commitment of all staff, P/TLC s need to be supported through institutional arrangements and the explicit support of the head-teacher which is the single most important ingredient for the success of this strategy (Rickinson, 2011; McLaughlin et al., 2006). Arrangements should include recognition of research as part of all teachers' work, the provision of resources and time to allow this and a commitment to take the recommendations of teacher research seriously (McIntyre, 2008 p.17). Different formulations for P/TLC have been suggested but Dylan Wiliam's research-informed guidelines have been particularly popular within our partnership. These include: a monthly meeting of

approximately seventy five minutes; cross department communities of ten to twelve members with two per department; a meeting agenda featuring regularly reviewed items (Wiliam, 2011).

Practical Arrangements need to go hand in hand with cultural adjustment. The establishment of P/TLCs sends a message to teachers that their own classroom enquiry is considered a key strategy for school improvement, underpinned by a leadership commitment to a collegial rather than individualistic or bureaucratic form of accountability (McIntyre, 2008 p.18). This may involve the gradual re-shaping of the school's cultural landscape to normalise teacher research as an integral aspect of teacher professionalism. Clandinin and Connelly's (1996) semiotic research into the re-branding or 're-landscaping' of Bay Street School shows how school structures can be re-formulated by changing symbolic associations. They use the example of how a new head-teacher transformed the 'naughty bench' from a site of stigma into a place of positive interaction between teachers and pupils, which in turn became emblematic for re-landscaping the ethos and public perception of the school. Just as these 'secret, sacred and cover stories' (Clandinin and Connelly, 1996) of a school can be changed, so too can landscapes of teachers' knowledge and research. Among their conclusions they write:

'That teachers are not autonomous agents working in context-less spaces ... rather teachers ... and students live on complex storied landscapes in which expressions of their knowledge are shaped by the landscape.' (Clandinin and Connelly, 1996 p.147)

2.4 Collaboration or Conflict?

But P/TLCs are not an automatic panacea and their introduction by head-teachers as a structure for school and staff development may at first be seen by some as an imposition and an expression of power relations within the school. When established without staff support or appropriate practical arrangements they have caused dissent. A recent focus group of partnership mentors revealed scepticism about P/TLCs in their schools, commenting that staff involvement was not valued and supported through the provision of sufficient integrated time (Rosenthal, 2013). Staff had been given no choice about what P/TLC theme they could participate in and the mentors argued that a pre-requisite for collaborative culture would be more informal social opportunities through which people could get to know each other in a less pressured context. In other words a community needs to be built on social rather than

simply work-based engagement. Under such circumstances P/TLCs were interpreted as an attempt to further the SMT's control and agenda rather than to democratise the school (Rosenthal, 2013).

From a critical perspective the use of the community concept can be seen as a mechanism for reinforcing terms of participation and legitimizing structures of control (Fendler, 2004) while defining terms of inclusion and exclusion (Watson, 2014). A progressive teacher-empowerment agenda may be seen as a subterfuge for management-driven school improvement (Hopkins, 2001), a management strategy to coerce teachers into the institutional mission by 'imposing a hegemonic closure on meaning' (Watson, 2014 p.22) under the mantle of progressive ideology and inducing teachers to self-regulate their classroom performance (Foucault, 1979). An insistence on shared community values is also criticised for masking conflict and 'the presence of incommensurate values evident in educational policies and the practices they give rise to in schools' (Watson, 2014 p.22). While P/TLCs evoke cultural and social notions of worth, an unrelenting focus on pupil attainment and teacher effectiveness in schools relates instead to industrial and market related notions (Watson, 2014). Carr and Kemmis (2005), advocates of action research and authors of the influential *Becoming Critical* have pointed out that under contemporary political conditions action research can become purely instrumental for centralised agendas and detached from its original emancipatory objectives. Likewise, school-University research partnerships have been parodied as parasitic (Elliott and Sarland, 1995). This has been amusingly satirised to position University-based colleagues as vampires feeding on the research blood of school-based colleagues (Couture, 1994).

But even if school communities and P/TLCs are sites of conflict rather than consensus, should this automatically be assumed a negative influence? Ball (1987) has criticised the tendency to pathologise conflict and overlook its importance as an agent for change. Indeed challenges to the status quo can be an essential prerequisite for progress or organisational change, while stability can:

'Obstruct the "continuous school improvement" the shared vision is intending to bring about...ironically creativity thrives on uncertainty thus requiring divergence from shared vision and values, though as a strategy it is not without risks.(Watson, 2014 p.23)

Watson goes further to argue that conflict, tension and change are important for the health of a school community while too much trust and cohesion among an established community of insiders can lead to disfunctionality and 'groupthink'. While conflict *can* 'trigger political battles that undermine social ties and fuel distrust...the functional co-existence of trust and distrust lie at the crux of high-performing teams' (Sundaramurthy and Lewis, 2003 p.407). Counter-intuitively, loyalty can be potentially detrimental to organisations because it can inhibit change while less staff commitment or even resistance can lead to greater adaptability and success (Watson, 2014 p.26).

In a similar vein, top-down or outside influences should not always be assumed to be negative. Schein (1972) pointed out how entrenched and unhealthy patterns of an old order will resist change and may be only dislodged and disrupted by new leadership:

'The change agent must assume that the members of the system will be committed to their present ways of operating and will, therefore resist learning something new. As a consequence the essence of a planned change process is the UNLEARNING of present ways of doing things.' (Schein, 1972 p.75 in Ball, 1987 p.30)

The introduction of P/TLCs as a new model for CPD could upset an old order with positive effect as the BERA-RSA Inquiry (2014) underlines the significance of cognitive dissonance, being confronted with data which unsettles the security of assumed practice with the result of creating deep learning.

While top-down changes may create conflict between management and a staff body, Ball (1987) argued that staff heterogeneity will always be an endemic and more significant cause of conflict. The greater the degree of heterogeneity existing within a school, the greater will be the challenge to reach consensus and the greater the likelihood of conflict. He identified three dimensions for understanding heterogeneity and its potential for creating conflict: *The Limits of Control, Goal Diversity and Ideology*. While head-teachers and senior managers *control* their schools, Ball's work showed that they cannot do this without the agreement and, if possible, support of the staff. He also showed how staff can influence the outcome of leadership decisions and thereby exert control in complex overt and covert ways. Staff support and consensus are therefore important and by withholding this staff can exert power. Quoting Kurt Lewin (1943) he pointed out that:

‘Acceptance of innovation decisions was found to be positively related to the degree of participation in the decision by members of the collectivity.’ (Ball, 1987 p.30)

Control therefore is a function of the collective commitment of the community as much as it is about the skills of leadership; yet the community is not homogenous. He questioned the extent to which there is consensus among school members or whether instead they hold a *diversity of goals*. To what extent are school improvement priorities agreed by staff? Ball pointed to the example of subject departments competitively vying for resources. A common management response is to devolve relative autonomy to sub-units creating a ‘structural looseness’ (Ball, 1987). Finally, Ball argued that all actions are underpinned by *ideology*. Decisions about curriculum content, school organisation or how to manage a classroom situation or pupil are all steered by under-pinning beliefs and values for example, meritocracy, equality, fairness, justice, need for change, ‘closing the gap’ or anti-racism. The ideology of leadership will influence decisions about resource allocation, including for example support for P/TLCs. Staff members will have varying degrees of commitment to this ideology. Drawing on the work of Blecher and White (1979 p.99) he suggested:

‘We can make an initial distinction here between ‘believers’ of various kinds for whom ideological values were subjectively important and behaviourally influential; ‘non believers’ who find public ideologies more or less irrelevant to their lives; and ‘cynics’ whose world-outlook comprehends the public domain... but only to ridicule, reject or manipulate it.’ (Ball, 1987 p.16)

Ball helps us re-image schools and communities of practice as heterogeneous fields of struggle where we cannot assume consensus; to understand them we must be sensitive to diversity of goals among participants, varying degrees of ideological commitment, the subtle dynamics of control within and between the communities and conflicts, overt and covert. These reservations remind us of two things: Firstly, school and University communities are complex with a diversity of values, beliefs and positions among participants. Secondly, that schools and communities of practice are sites of struggle where players at every level, from SMT to the staffroom seek to further their own position and interest whether this is expressed in relation to working conditions and promotion, school improvement or beliefs and values around teacher professionalism or social transformation. On arrival in a school, student teachers therefore enter into complex and contested fields (Bourdieu, 1990).

2.5 Student teachers and knowledge creation in Communities of Practice

In Lave and Wenger's (1991) Community of Practice the student teacher is a learner who acquires knowledge through Legitimate Peripheral Participation (LPP) in the community of experienced teachers who are full or central participants. Through LPP under attenuated conditions created by mentors, the learner participates in the socio-cultural practice of the community and learns through social engagement with in it:

‘In contrast with learning theories of internalisation, learning as increasing participation in communities of practice concerns the whole person acting in the world ... a theory of social practices emphasises the relational inter dependency of agent and world, activity, meaning, cognition, learning and knowing. ...the inherently socially negotiated character of meaning’ (Lave and Wenger, 1991 p.49-50)

Over time, as well as providing the peripheral participant with professional knowledge and access to full membership, LPP also allows the Community of Practice to reproduce itself. Without new members, the community's skills and knowledge would die with its members. It is therefore a form of social reproduction. With regard to individuals, ‘one way to think of learning is as the historical production, transformation and change of persons.’ (Lave and Wenger, 1991 p.51) and with regard to communities of practice they ‘are engaged in the generative process of producing their own future.’ (Lave and Wenger, 1991 p.57) This reproduction depends on co-participation. As the peripheral participant moves towards established status s/he will be increasingly able to make an impression on the practices of others. Lave and Wenger do therefore see LPP in the long-term as transformative as well as reproductive.

‘LPP is intended as a conceptual bridge –as a claim about the common processes inherent in the production of changing persons and changing communities of practice.’ (Lave and Wenger, 1991 p.55)

Watson analyses the collaborative enterprise of P/TLCs by citing a ‘Goldilocks model’: ‘too much collaboration is stifling, too little results in teacher isolation and inhibits growth but just enough provides the support and stimulation necessary for change’ (Watson, 2014 p.25). Thus there is a danger that P/TLCs could inhibit change if they are too inward looking, especially if there is limited turnover of membership. The learning rate may be enhanced by maintaining an input of the ‘naïve and ignorant’ newcomers (March, 1991 p.86) who know less than

experienced members, but the novelty of what they do know can make a significant contribution. Newcomers also expect experienced practitioners to demonstrate and thereby reconsider their own tacit knowledge about professional practice. Ironically, this contribution declines as the newcomers become socialised into the community (Watson, 2014 p.25). Student teachers fulfil the role of a regulated turnover which is not so big as to destabilise the community and in this context their peripheral status is an asset.

Student teacher researchers present a paradox. On one hand, they are Legitimate Peripheral Participants concerned with how to enter the community and become part of the 'prevailing occupational culture' (Munro, 1993). Often this is dominated by immediate classroom concerns of control and learning management and so the students under-recognise the value and significance of their own research-informed and theoretical knowledge associated with University aspects of their course. On the other hand, they are better informed in propositional and 'school knowledge' (Banks, Leach and Moon, 1989) and more expert in research methodology than their experienced mentors. In addition, they represent a reliable and renewable source of March's (1991) 'naïve and ignorant' who can continue to stimulate innovation and change. Thus, they present a valuable resource for the development of teacher research culture. In placement schools which value this, we might expect that they will make a significant contribution.

To summarise, this chapter has examined a number of grounding themes necessary for understanding the unique position of student teacher research. These have included: consideration of how knowledge is defined and constituted, different understandings of research as a process of knowledge creation, including the notion of insider knowledge which is central to paradigm of the practitioner-researcher. I have linked this to the enduring human concern for belonging and identity to argue that insider and outsider knowledge each occupy particular positions of value. These debates have been located amid changing educational and ITE policy. I have also considered the school environment as a community of practice: the site of professional learning for student teachers, their underlying conflicts and tensions, and the particular and paradoxical place of student teachers as both in and outside this. In the next chapter, I will outline and explain how I planned and conducted my empirical research into student teacher knowledge creation.

CHAPTER THREE: METHODOLOGY AND RESEARCH METHODS

3.1 The Timescale of the Thesis

This thesis is the product of six years of study. During this time it has been difficult to find sustained periods for concentrated study because of work and family commitments. As a result there have been protracted periods of pause in-between moments of data collection and data analysis. The timeframe is represented by the timeline in Fig.3.1.

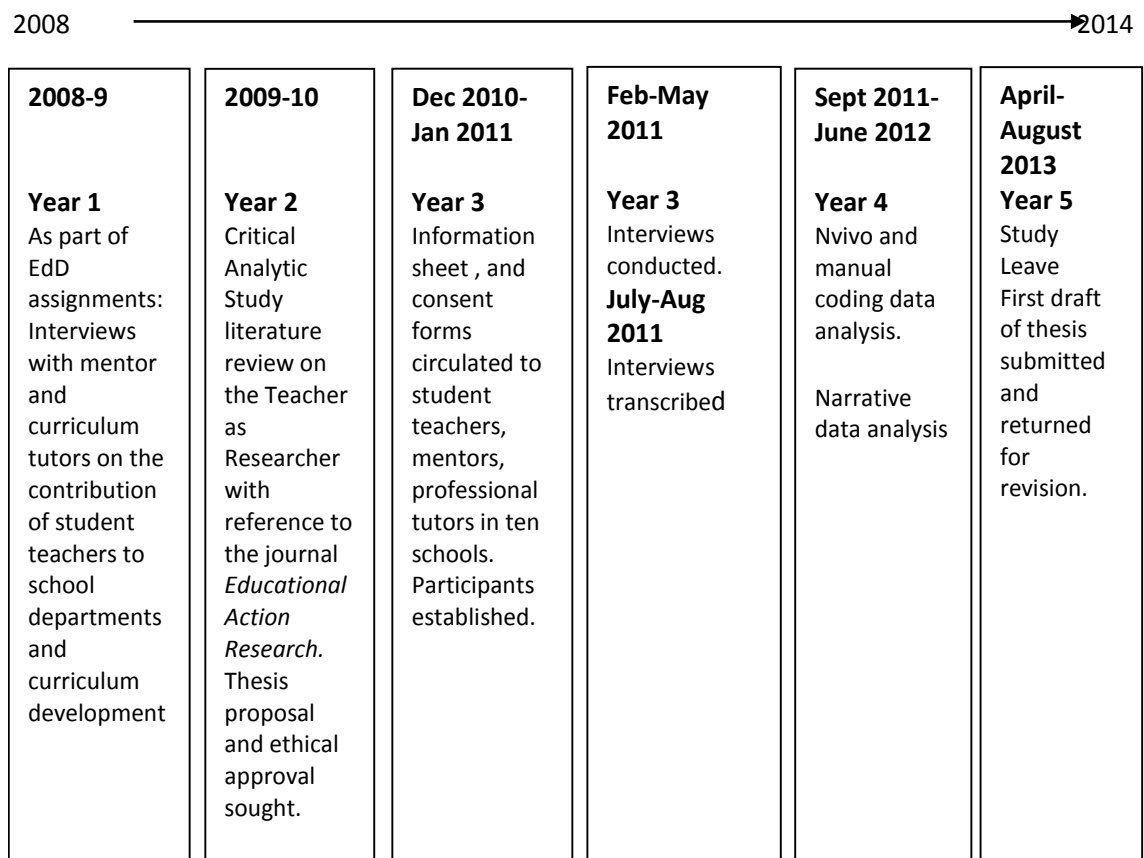


Fig 3.1: Time line of the Research and Thesis

In some ways, these time lapses could be seen as a weakness to the thesis. Data analysis was not completed until more than a year after the interviews were conducted, so could not be supported by immediate memory of the event or immediate context. Furthermore, the ongoing educational reforms outlined in Chapter Two had further changed the national and local educational landscape and context during this period. However, the time lapses also gave rise to an alternative strength: its iterative development. Over the protracted period my own understanding of research methodology, the substantive issues of the thesis and the data set

itself developed and matured further than might have been possible had I been able to write it without interruption (Clandinin and Connelly, 2000). During periods of inactivity, the material stayed with me, continuing to turn over in corners of my consciousness. Meanwhile, the long time-scale of the thesis enhanced its scope as an account of my own development as a practitioner-researcher as well as an investigation of its substantive issues. In this chapter I will describe my changing methodology as it unfolded. It will become clear that these changes were closely related to further-reaching developments in my epistemological position and a 'mixed methodology' as I moved between positivist and interpretive positions.

3.2 The Data Collection Programme

I embarked on my research making positivist assumptions about research and selecting related methods. I imagined the Special Study, the student teacher research project, as embodying essential characteristics which would not fail to have positive impacts in schools. I hypothesised that it would be a catalyst for changing attitudes among the students, mentors and Professional Tutors: that each of these groups would demonstrate changes over time as they were drawn into the process and that a longitudinal analysis would reveal this. I intended to monitor and demonstrate these changes through a quantitative analysis of coded transcripts (Anderson and Arsenault, 1998) and believed that my research might be able to identify universal generalisations and recommendations for good practice (See Appendix D). I planned to sample a third of the geography PGCE cohort during 2010-11 as a claim to reliability. This was to be an opportunity sample. Having explained my project to the whole group of students, I asked them all to consider participation and to return a consent form, assuring them that refusal would have no consequences. All the students returned consent forms, although this may have indicated a sense of obligation to their tutor. Meanwhile, I wrote an introductory letter of explanation and consent form to all nine mentors and nine Professional Tutors in the students' placement schools (See Appendix E). Because of the pressure of time, I allowed my sample to be determined by which three schools were the quickest to return signed consent forms for both mentor and professional tutor. It was fortuitous that these three schools happened to represent contrasting environments and this contributed to the uniqueness of each case study.

The sampled students' Special Studies were on an interesting range of issues and are summarised in Figure 3.2 (duplicated as Appendix F to facilitate further reference), together

with an indication of the respective school orientation towards teacher research and a summary of participants' names:

Student	School	Mentor	Professional Tutor	Special Study topic	Research Culture
Daisy	Bentham	Hugh	Brian	What geography do pupils want to learn at KS3?	No teacher research culture
Colin	Aldley	Vicky	Wendy	The use of poster displays as a vehicle for learning activities	Sympathetic but not attempted
Ali	Caxton	Karen	Naomi	The place of locational knowledge in the Geography Curriculum	Active P /TLC

Figure 3.2: The Respondents, their Schools and the Special Study Research Titles (all names are changed to protect anonymity)

Having selected the schools, I decided to interview each of the three respondents (student, mentor and Professional Tutor) at the beginning of conducting the Special Study, at a mid-point and finally following the completion and submission. I thought that this longitudinal approach might allow me to follow the participants through the process, observing in each case the way their research interacted with and impacted upon the school. At the time, I also thought this would provide a degree of triangulation in relation to the views of each participant, as their responses on each day might be affected by mood. In the end, only twenty three rather than twenty seven interviews were conducted since the middle visit to Bentham had to be cancelled and Naomi at Caxton was unable to meet for one interview. These omissions concerned me as they reduced and unbalanced the symmetry of the data set.

The interviews followed a semi-structured format using an interview schedule (See Appendix A). This allowed me to steer the respondents to talk about my area of interest and provided a prompt to keep them on topic, while allowing them to explore and define it in their own terms. Thus, the interviews navigated a middle ground between 'mining' for nuggets of knowledge that are known to lie in the river bed, and 'travelling' with the participant to discover together where the interview will go (Kvale, 2009). The schedule of questions was sent to participants in advance, shown again before formally beginning each interview allowing respondents the opportunity to develop their thoughts and then left on the table for the participant and interviewer to refer to. Interviews were all recorded using a dictaphone. Each

was formally started and ended by turning it on and off. These elements of structure helped to maintain the 'mining' element of the interviews to stay focused. This said, questions were not read out but talked around, with the intention of creating an atmosphere of trust. Although an interview schedule was used, the 'traveller' element allowed the respondents to follow tangents and develop their own direction with the support of my affirming language.

Interviews were usually conducted in private and confidential spaces in schools so that participants could talk freely. However, this was not always the case. The first student interviews were conducted outside a pub in Islington. The three trainees were interviewed together, sitting around a table on the edge of Upper Street at the end of a busy field visit day when all involved were a little tired and while partaking in an alcoholic drink. The fact that the three were together and the informal social setting may have had an effect on their responses. All other student, mentor and Professional Tutor interviews took place within their respective schools, dovetailed with partnership or lesson observation visits. While this was convenient for all concerned, it is possible that this context may have affected their responses. For example, students may have been exhausted following their observation, emotionally affected by the message of my feedback and particularly aware of my position as their tutor. Meanwhile, before-school interviews with Professional Tutors and mentors were not ideal since they were under the pressure of their impending day's lessons. It would have been preferable to conduct interviews on separate occasions and in discrete locations; however this was not a practical option for anyone concerned. It is in the nature of real world research that perfect conditions cannot always be achieved or maintained.

3.3 The Data Analysis

All interviews were transcribed by me. This involved listening to the dictaphone using an earphone and typing directly onto a computer (See Appendix B). I frequently had to replay sections in order to check meaning and the 23 interviews took approximately seventy hours to complete. Through transcribing them myself rather than employing a professional transcription service, I became very familiar with their content. While the transcripts recorded some incidences of hesitation and other para-linguistic features these were not rigorously documented since the transcription was intended to aid the search for meaning rather than provide a linguistic analysis.

3.3.1 Coding

It was when I embarked on the analysis of my transcripts that I started to question my original epistemological stance. I experienced a number of ‘false starts’ (Phoenix 2013). I had intended to apply Nvivo software to some pre-determined categories while allowing further categories to emerge during the reading. However, after taking this approach with four interview transcripts, a technical problem with the software led to a loss of files and in spite of attempted support from the University and the Nvivo parent company, I was unable to recover this analysis. This was upsetting, but ironically proved to be fortuitous and was a first stage in unsettling my positivist preconceptions and stimulating critical reflection on method. I abandoned Nvivo, but my brief period working with the software had proven a significant learning experience as regards the quantitative analysis of qualitative data. As discussed in Chapter Two, quantification always offers a comforting sense of certainty and validity and Nvivo does this by quantifying selected phrases or words. However, the determination of codes and their application to phrases in text involves subjective interpretation by the researcher (Ragin and Becker, 1992; Flyvbjerg, 2006). For example Nvivo will calculate the percentage of a text focused on any selected theme, however the identification of where theme coverage begins and ends in a transcript is a subjective judgement. One researcher might identify a whole sentence of twenty words containing a theme while another may identify just a five word phrase within the same sentence, thereby distorting the quantitative picture.

Nevertheless, I continued with a coding approach to content analysis (Ezzy, 2002), applying this manually to transcripts and adding ‘comments’ as they arose. I then cut and pasted these comments into a table according to respondent showing each interview in its own column, arranged in chronological order (See Appendix C). The intention was to count manually the frequency of occurring themes across the interviews and note continuity, change and development. It was thought that similarities and differences might also be noted between role groups (Anderson and Arsénault, 1998).

However, the perturbation that began with Nvivo soon extended to the manual coding approach. The individual differences between respondents led to such a proliferation of coding themes that it started to appear unmanageable to find common threads and unethical to force

respondent views into themes which did not reflect their comments. I became increasingly aware of the differences emerging between the views of respondents and the extent to which these seemed to relate to individual school contexts. These differences became more interesting than the search for common trends and seemed easier to identify within the data. I therefore decided to reconceptualise my data as representing multiple embedded case studies (Yin, 1989) rather than sample sets: three participants each representing a single case embedded within the case study of their school, repeated in three schools.

3.3.2 Case Study

Case studies have to be bounded in some way. My case studies were located within their bounded schools and departments and bounded in time between February and May 2011, the period of the Special Studies. Yet beyond these spatial and temporal boundaries, wider school and national policy frameworks and partnership with the University constituted an enduring influence. Ragin and Becker (1992) remind us that the researcher must continually ask 'what the case is a case of?' and frustratingly suggest that:

'Researchers probably won't know ... until the research including the task of writing it up is virtually completed...What it is a case of will coalesce gradually, sometimes catalytically, and the final realisation of the case's nature may be the most important part of the interaction between ideas and evidence.'(p.6)

Having completed the thesis, I can now say that they are case studies of different ways in which the knowledge created by student teachers is used in contrasting environments by participants with different material interests.

Deep and detailed case studies can advance our understanding of particular cases further than statistical analysis (Robson, 2002). Their value lies in the detail and the narrative surrounding the case. They are able to catch the complexity and situatedness of human behaviour (Cohen et al., 2008) and allow the relationship between context and action to be explored, rejecting a subject-object dichotomy, regarding all participants equally and regarding their different ways of seeing as new ways of knowing (Simons, 1996). The case can also:

'...follow the causal action. Rather than assuming universal or constant relevance, it explains only "what needs to be explained" and lets the rest slide along in the background. This selective attention goes along with an emphasis on contingency. Things happen because of a constellation of factors, not because of a few fundamental

effects acting independently. ...another distinct advantage is...it makes no assumption that all causes lie at the same analytic level... tiny events can have a big effect.’(Abbott 1992 p68)

Case studies have often been criticised by positivist researchers for being vulnerable to researcher bias and subjectivity, allowing the researcher to find what s/he was looking for. The intrinsic focus of the case study on the particular excludes them from contributing to generalisation (Yin, 1989). But interpretive research makes no claim to objectivity and recognises the effect of the researcher’s own agency and interpretation of the findings at every stage: when framing research questions, designing the sample, as a co-producer of the interviews through conversational inter-action and inter-personal positioning, as transcriber and then as interpreter when writing the analysis. Indeed one of the main criticisms made of narrative analysis of interviews is that this tends towards the verification or confirmation of the researcher’s own preconceived notions (Diamond, 1996 p.6 cited in Flyvbjerg, 2006) and could be heard as the voice of the researcher rather than the participants. However, subjective involvement and the danger of verification are also a hazard, although not commonly recognised, with scientific hypothetico-deductive research. As Flyvbjerg writes:

‘The element of arbitrary subjectivism will be significant in the choice of categories, variables for quantitative or structural investigation such as a structured questionnaire to be used across a large sample of cases....(and) it may affect the results quite simply because the quantitative researcher does not get close enough to those under study as does the case study researcher and is therefore less likely to be corrected by the study objects “talking back”’. (p.399)

As regards the search for generalisation, case studies are more interested in ‘why’ and ‘how’ rather than ‘what, where and when’, and to understand human motive and response, case study tries to embrace all the messy complexity of an individual situation (Ragin and Becker 1992). Nevertheless, case study researchers argue that a form of generalisation does take place (Flyvbjerg 2006). While positivists make generalisations for the reader about a population on the basis of empirical data, in case study the reader is invited to make bring their own previously developed analytical framework to their reading of the case study (Yin 1989). The generalisation is made by the reader of the case study who relates it to their other experiences. Thus, case study allows the study of specific phenomena in vastly different types of settings without seeking to homogenise them (Ragin and Becker, 1992).

3.3.3 Narrative Analysis

To understand my case studies I turned to a narrative analysis based on symbolic interactionism (Curtis, 1978; Woods, 1983), seeking to understand the meanings and significance that each of the nine participants attached to student teacher research, how they were influenced by their surrounding environment and how they believed they may in turn have influenced the environment itself. As I moved away from a positivist coding approach, my methodology came to be expressed by a line from the novel *Extremely Loud and Incredibly Close*, 'people aren't like numbers. They're like letters and they want to become stories' (Foer, 2006). Symbolic interactionism is concerned with meanings rather than 'facts' and was better suited to an exploration of participants' perceptions of student teacher research knowledge than quantitative analysis that I had originally imagined embarking on my coding. My incomplete coding activities had been very helpful in developing a multi-layered understanding of the transcripts, but faced by the impossibility of reducing them into a theorised framework, they helped me instead to construct rich stories of each participant in their school and professional context. Instead of a search for certainties, 'narrative enquiry is aimed at understanding and making meaning out of experience' (Clandinnin and Connelly, 2000, p 80).

Narrative is defined by the Concise Oxford Dictionary as a 'tale, story or recital of facts...told in the first person' (Fowler and Fowler, 1964), an account of the lived experience of the world. For Clandinin and Connelly (2000), 'the research problem (is) trying to understand the continuity and wholeness of an individual's life experience...For us, narrative is the best way of representing and understanding experience.' (p 17-18) It also acknowledges the significance of the researcher as an instrument of interpretation of others' experiences; and as an active participant in the action with influence on outcomes (Akyeampong, 2008).

Narrative can be a powerful tool for social research, perhaps closer to authentic human experience than positivism, a 'roots' epistemology. Throughout human history we can see people as 'homo narrans' (Fisher, 1984; Bruner, 1987 both cited by Phoenix, 2013), genetically programmed to interpret the world and create order from disordered experiences through telling stories. In the life-world, People use narrative in various ways. They construct and

develop their identities through telling stories of their experience, exorcise trauma by recounting these stories to therapists or others and telling stories of the past or present can help people to approach the future (Phoenix, 2013). In this case, I have interpreted the stories of the participants to understand better their school landscape, as Clandinin and Connelly write:

‘... if we can understand these school stories, we will be able to understand more about how the storied landscape shapes teacher knowledge and how teacher knowledge shapes the landscape (Clandinin and Connelly, 1996 p.143)’.

Because narrative represents a fundamentally different epistemology to positivism, it represents methodological challenges for the researcher which Clandinin and Connelly (2000) explore in depth. As a starting point, they contrast the *narrative* of participants’ lived experience to positivism, formalist enquiry or ‘technical rationalism’ (Schön 1983), an approach they name the ‘*grand narrative*’. Whereas the grand narrative tends to a deductive approach, starting from theory and hypothesis to reduce the social world to a source of data for theory testing, narrative takes an inductive approach, starting from accounts of lived experiences which the audience can draw upon to support their own theorisation and subsequently enhanced understanding of their own experiences.

‘In formalist enquiry, people....are looked at as exemplars...(whereas in narrative they are seen)..as embodiments of lived stories.....as composing lives that shape and are shaped by social and cultural narratives’ (Clandinin and Connelly, 2000, p.43)

While I turned to narrative as a means to data analysis and developed an epistemological affinity with it, I had not begun my enquiry with this in mind. Had I done so, I might have asked different questions and approached the collection of data differently, for example by perhaps asking the participants to maintain a journal or to maintain a regular e-mail correspondence with them throughout the research period. Instead, my methodology developed through the enquiry process. This created tensions for me which Clandinin and Connelly (2000) discuss as being characteristic conditions of struggle for the narrative enquirer who operates at the boundary of narrative and grand narrative ontology, rather than in a completely parallel universe. In my case, I stepped across the boundary in the course of the enquiry, as my reflexive autobiography (Chapter One) shows I have done at previous times during my academic life. They write that negotiating this boundary means the narrative enquirer has to negotiate tensions between these ontologies. In my case, the framing of each participant’s

narrative and my interpretation of their actions had to be understood in the context of the respective case study school and their particular moments in time rather than as stand-alone data artefacts; the individuality and agency of the participants had to be of central importance rather than exemplifications of prior theorisation; I found myself less certain and more tentative about my interpretations and indeed my original intentions and assumptions within the research; and I became increasingly aware of my own role in the interview event and subsequent construction of outcomes, through interaction with and shaping of both participants' dialogue and my research text interpretation.

By abandoning coding and adopting a narrative analysis I was abandoning the notion of systematic re-organisation and categorisation of the transcripts in favour of using what Clandinin and Connolly (2000) describe as three dimensional enquiry space (p. 54): in approaching the participants' stories, I could move backwards and forwards in time across such of their life-world as was offered to me; zoom inwards and outwards along a scale from inner personal thought and feeling to social role, position and interaction; and consider the significance of their place, the practical and social context and moment in which they were located. I constructed narrative sketches of the interview stories, drawing out key events and plots by 'burrowing' into them from the transcripts (Connolly and Clandinin, 1990). Thus I became a re-teller of the respondents' stories, selecting, signifying and evaluating what I considered relevant to my research questions, or put another way, meaningful for my audience (Phoenix, 2013).

I read and re-read the transcripts time and again, going through stages. First, I read the individual interviews per person together to identify recurring themes and development over time (Appendix D). Their story, told in their own words was re-interpreted using the three dimensions of narrative space, analysed and presented as Chapter Four where I try to represent the participants as they presented themselves to me.

In writing Chapter Five, my discussion, I re-read the transcripts in a more theorised way to support the understanding developed through writing Chapter Four. Thus it could be said that I returned to the epistemological boundary and sought evidence for generalisation from the transcript regarding possible common experiences for students, mentors or Professional Tutors; and for a holistic school experience triangulated from the three contrasting

participants. However as this represents my discussion of the data I regard it as necessary and legitimate to review the narrative data through a proposed analytical lens and discursive structure.

3.4 Authenticity and Transferability

As an interpretive research project, this thesis makes no claim to validity or reliability, both concepts important for positivist ontology and epistemology: that the lives of each participant and the world of their schools as reflected by the interview are fixed and certain entities, unaffected by individual perception, mood or moment. Instead of validity, I claim that the research has accessed the authentic voice and reflects the realities of the participants at the time of interview. As described above, I had developed honest, trusting, collaborative working relationships with the participants over long periods of time. I am therefore confident that they expressed their honest, genuine authentic views (LeCompte and Preissle, 1993). My long-standing relationships also allowed me to locate their responses within an existing understanding of their beliefs and values and so confirm their consistency. In addition, transcripts were circulated to the respondents for agreement of their accuracy before any analysis was carried out (Lincoln and Guba, 1985). Repeat interviews following the same structure at three different points in time allowed me to consider the internal consistency in their stories as well as identify changes over time. An understanding of each school as a whole was supported by interviewing three participants in each school, each with a different position-related perspective (Kirk and Miller, 1986). Had I known from the outset that I would conduct a narrative analysis of the interviews I would have asked the participants to review my interpretation of their stories and taken their responses into account in my analysis. It could be said that this would have further ensured the truthfulness of the analysis; although this might equally be seen as compromising the criticality of what could be written. However, since narrative analysis had not been part of the original research design no provision had been made. In logistical terms, it has seemed unreasonable to do so given their ongoing daily pressures. Furthermore, unless the narrative analysis had been reviewed soon after interview, intervening time is likely to have affected participants' memory or perception of their told story. Because of my 'false starts' (Phoenix, 2013) and my study being part-time, the analysis was not finally completed until two years after the interviews.

In a similar vein, it is not appropriate to evaluate this thesis in terms of reliability, that is the replicability of results should the research process be exactly repeated, since the narrative is interested in unique and individual situations. Indeed idiosyncrasy is the strength rather than a weakness of qualitative studies. Instead it is more useful to consider its dependability or strength (Webster and Mertova, 2007). In narrative texts, usefulness comes

‘Not so much (from) the knowledge they contain but for the vicarious testing of life possibilities by readers of the research that they permit... The narrative enquirer does not prescribe general applications and uses but rather creates texts that, when well done, offer readers a place to imagine their own uses and applications.’ (Clandinin and Connolly, 2000, p. 42-46).

In another sense, by developing a deep understanding of the nuance and detail in one situation, the reader becomes better equipped to interpret and understand further situations. Rather than being generated by the researcher reliability is developed in the perception and understanding of the reader (Yin, 1989; Ragin and Becker, 1992) where it may be more helpful to consider the transferability (Lincoln and Guba, 1985) or narrative resonance (Whelan, 1999 cited in Clandinin and Connolly, 2000 p.185) of the findings.

3.5 Ethical Considerations and Reflexive Concerns

I originally considered my research to have no ethical concerns and that my intentions and methods were uncontentious: how could furthering an understanding of how student teacher research might contribute to improving teaching and learning in a school be other than benevolent for all? Furthermore, the research process intended to have other beneficial impacts such as raising participant consciousness and aspiration, and advancing the aims of the consortium partnership. The research presented no likelihood of harm or distress for school pupils and all adult participants volunteered by responding to a written request from me and offered informed consent, verified by signing a consent understanding form. The interests of participants were assured by confidentiality of interviews and their transcripts and anonymity by the use of pseudonyms for people and schools; the transcripts were returned to respondents who were asked to check for accuracy and comment before any analysis was undertaken. Detailed quotes from or details of OFSTED reports have been deliberately omitted to protect identity. The completed thesis will be available through the University of Sussex and the British Library.

However, my understanding of ethical considerations has developed through the research process. Regarding substantive matters, I have come to recognise that the practitioner researcher model is not universally revered, adopted or understood, just as there are different conceptions of teacher professionalism. Furthermore, opinions within a school as to how improvement can be achieved may depend on one's position; for example a head-teacher may look to performance management while a classroom teacher may identify additional preparation time as the way forward. These differences constitute part of my discussion in Chapter Five. On an operational level, I have encountered a significant ethical concern for narrative enquiry. I have become aware of the tension between telling the participants' stories and letting them tell their own stories. As a narrative enquirer I digest, analyse and re-frame their story through my eyes and words. The alternative would be to simply print their interview transcript. As narrator, I could have returned the final analysis to participants for checking as previously considered. However this would have presented its own ethical dilemmas: had I planned to do this I would not have felt so able to develop my own critical interpretations which may have caused upset to some participants. The interpretive researcher occupies a difficult territory at the boundary of meaning-making between his/her own and that of participants

As I have described previously, a persistent concern for interpretive or narrative research is how the researcher may influence the process and outcome. Being 'wakeful' (Clandinin and Connolly, 2000) or reflexive of one's own story is an ongoing challenge. For example, how might my position of relative power as a University tutor have influenced what the participants said in interview or compromised their honesty? Dunne et al. (2005 p.32) suggest that the 'relative [power] positions make neutral inter-change unlikely' but what matters is to ensure 'the positioning of the interviewer and respondent are explicitly addressed as integral to the research'. I had direct authority over the student teachers, supervised their Special Studies and was to be the summative assessor of their PGCE. My University status gave me, though less directly, authority over the mentors and Professional Tutors since I was responsible for ensuring that they fulfilled the University's expectations of the school-based training. In addition, the University represented for them the apex of the education system. Many schools see their very purpose and measure of their value in terms of their pupils' entry to Universities. In addition, all three student teachers and all three mentors participating in my

research were aware of my enthusiasm for classroom research and there is a risk that they may have told me what they thought I wanted to hear rather than what they necessarily believed, a Hawthorne effect representing a threat to their truthfulness (Landsberger, 1950).

In response to these concerns, I can only point to the quality and longevity of my working relationships with participants. I had known all the mentors and Professional Tutors for at least three years, in some cases eight and had been the curriculum tutor for one of the mentors during his PGCE. This pre-existing relationship provided benefits of trust, a shared understanding of their professional roles and their school life. I enjoyed a strong rapport with each of the nine participants and it is my judgement that they were honest and truthful in their interviews, sharing their authentic perceptions. Our collegial relationships could be said to ameliorate perceived power relationships.

To summarise, this chapter has described the methods of empirical data collection and analysis used in this thesis. It has also discussed my methodological journey from a positivist to interpretive approach and the related methods of case study and narrative. Parallels have been drawn between the developmental journeys of the research methodology and my personal, epistemological and professional development. In the next chapter, I will present the findings of my empirical research through a narrative analysis of school-centred case studies.

CHAPTER FOUR: FINDINGS FROM SCHOOL INTERVIEWS

Findings from each of the three schools reflected differences in how the knowledge created by student research was understood, mediated and used by the respondents. These can be related back to discussion about contrasting constructs of research. This chapter considers each school case study in turn. A brief portrait of each school, the participants and the student research project are provided followed by an interpretive narrative of the interviews.

4.1 ALDLEY SCHOOL

4.1.1 Brief Portrait of the School

Aldley is an 11-16 comprehensive school in a small market town. The catchment area is relatively prosperous with just 6% of pupils qualifying for free school meals. It became a Sussex partner in ITE in 2008 and since then had only taken students in two or three subject areas but at the time I hoped that this would expand as it had an excellent and widely respected infrastructure and programme for continuing professional development of its qualified staff although this did not involve teacher research. At the time, my impression was that teacher practice in Geography tended towards the traditional and pupils were compliant. However, its last OFSTED report concluded that it was 'outstanding' and that teaching was characterised by collaborative and practical problem solving with an emphasis on developing pupil independence. It described the 'infectious enthusiasm' of teachers and observed lessons where activities were regularly interspersed with opportunities for reflection and consolidation. A pupil was cited describing how she was encouraged to investigate, challenge and extend her ideas in lessons. All this suggested that enquiry was highly valued as an aspect of the curriculum and school ethos. The report also identified successful partnerships with a local college and a variety of schools through which Aldley made significant contributions to their training, teaching and curriculum. As well as developing a partnership with Sussex, Aldley had links with three other Universities for collaboration in ITE and other postgraduate work.

Leadership and management within the school were considered 'outstanding' by OFSTED, with high expectations and well-managed lines of accountability. The impact of teaching on learning was rigorously monitored with areas for improvement promptly addressed through excellent

professional development. In the context of this thesis, Aldley might be characterised as recognising and valuing the importance of collaborative, enquiry-based approaches to learning for pupils and even supporting the notion of teacher action research linked to M level accreditation, but at the time of research the school had made no institutional arrangements to support its development.

4.1.2 The Participants at Aldley

Student teacher Colin had begun the PGCE course with some reserve and lack of confidence. This initially showed as a reluctance to experiment or be imaginative about the curriculum. He could have been described as 'conservative' with a small 'c'. However, as the course had progressed he gained confidence and willingness to experiment. His Special Study was an action research project on how room displays could be used as a vehicle for learning Geography rather than being purely decorative. It involved three cycles of display-based lessons, each followed by evaluation based on pupil achievement and subsequent refinement in lesson planning. While researching his Special Study his successive interviews indicated a significant change of attitude towards teaching, learning and how he perceived himself within the department. He was directly supervised by mentor Vicky.

Vicky had worked in the school for over 20 years and was close to retirement. She had mentored four of my previous geography PGCE students and our working relationship was therefore built on mutual confidence. She embraced mentoring enthusiastically and was a very willing participant. Interviews were held before the school day on scheduled observation or partnership visits to the school, privately in the Professional Tutor's office.

As in all partnership schools, the Professional Tutor was the member of the SMT who overviewed all ITE, supervising students and mentors. Professional Tutor Wendy was new to this role. As I had not worked with her before, our relationship was the least established of all the nine participants of my research. She differed from the other Professional Tutors in that she held a senior curriculum position which oversaw Geography.

4.1.3 The Aldley Interviews

Colin's Special Study on the use of wall displays captured the fundamental question of how people conceptualise knowledge. At its heart were two views about the meaning and use of displays, each of which related in turn to a construct of knowledge. On one hand, displays were perceived as authorised presentations of teacher-selected propositional knowledge; and on the other, displays became the locus for active construction of knowledge by pupils. In early interviews Vicky and Wendy held the former perspective. Their pre-occupation with propositional knowledge was illustrated by Vicky's identification GCSE specifications and the content on new KS3 units of work as the most significant concerns of the department. For Wendy, the propositional model was reflected by her consideration of staff development needs: she was eager to help staff acquire technical skills in Information Communication Technology (ICT) and Geographical Information Systems (GIS) and had been delighted that a previous student had provided some staff training *'which was an amazing contribution in developing our understanding of how computers can work for us'* (Wendy). Initially the benefit of Colin's research was an anticipated report which he might share with others and Vicky thought that Colin should: *'disseminate it ... publish it in Teaching Geography, to get a wider audience'* (Vicky).

However, over time the interviews with all participants reflected the development of a constructivist understanding of knowledge. The action research approach deployed by Colin was intrinsically constructivist, establishing his own knowledge through constructing and re-constructing classroom action. Furthermore, this classroom action involved pupils building wall displays as a vehicle for learning, engaging them in their own knowledge construction. This helped to unsettle Wendy's and Vicky's preconception that displays constituted the presentation of teacher-authorised propositional knowledge and to re-construct them as the locus of knowledge creation *'an interactive piece of work that pupils can add to and develop throughout a sequence of lessons...Displays are not just a static end product ... but an organic thing'* (Colin).

A constructivist concept of knowledge creation emphasises the significance of the context within which the creation is located for giving it meaning (Eraut, 1994). In this case this would

mean the themed space of the geography classroom, pupil identification with and attachment to this. As Colin said:

'I'm concerned that in some of the (geography) lessons I've seen in the past, moving around all the time, behaviour has been an issue with some of them. They might be teaching in a science room or something, it doesn't feel always like a geography lesson. But if they're in a geography room consistently, they can see their work on the wall it might help them to feel more motivated.' (Colin)

The repeated cycles of display-based classroom activity which represented Colin's data collection had a significant effect on pupil learning, on other teachers and on his own professional development. I will consider these in turn beginning with the impact on learning, pupil ownership and engagement. Colin's data collection involved observing lessons during which pupils would use teacher-supplied resources to produce their own display which represented their selection, interpretation and analysis of the geographical issue of deforestation. In the process of manipulating the propositional knowledge within the materials offered by the teacher they actively re-constituted it into their own new formulation of knowledge. Colin's comments demonstrated the effect:

'They didn't understand at first why they were making posters and were a bit sluggish. But when the first group finished and I told them to put it up on the board, suddenly the class perked up, "so we get to put it on the board now?", and that's exactly what I wanted to happen and suddenly the pace of the lesson picked up and they were rushing to get it done and fighting to get the best spot on the board. Brilliant! And I've had comments from other students relayed from other teachers asking what's going on "what are they doing there?" and "Why can't we get a display board?"...I enjoy seeing the kids actually have ownership of the wall and really using it...they looked excited and discussed it...one said "you can put what you like because it's our wall" and I think that encapsulates everything I've learnt so far, that's exactly what wanted...to know that it's their wall and they can do what they want with it...I was really proud.' (Colin)

Vicky made parallel observations about the effect on pupil interest and motivation:

'Some were dilly dallying, taking girly time to make it pretty rather than get on with it. And the first person finished, he said "ok put it on the wall" and they said "What? Oh...OK!" and that spurred them on. So it had a really good impact.' (Vicky)

Vicky saw this as enhancing pupil ownership and alluded to a spirit of co-enquiry: *'they know they can put things up there as well. It's not all teacher-done'* (Vicky). This excitement soon spread to other classes. One pupil is reported as saying *"when we've done these are we going to have ours ... a board like that class in there?"* (Vicky).

The impact on Vicky was that the research process gave her an opportunity to gain distance and perspective on her own classroom practice. It reminded her of aspects of her own past idealism. It had been a positive and developmental experience:

'At one point I was thinking "gosh this is going to take ages" ... but once it got going it didn't take any more time. I could admire it rather than see it as another thing that I had to do ... I'm probably pleasantly surprised. I was a bit cynical; you know "I'll see what comes of this". And I'm pleasantly surprised.' (Vicky)

It reminded her of the importance of display and *'certainly raised awareness of how much a display can mean to a class'* (Vicky) generating a ripple of enthusiasm across other classes. She tacitly acknowledged that *'we perhaps haven't used them as effectively'* (Vicky) and admitted that displays had been neglected as a result of workload agreements. She re-considered her approach to teaching and learning:

'It's made us more aware that it's not just something you put up when they've done a piece of work. But it could be part of the process ... an active part of the learning ... we don't have an awful lot of time to talk but in meetings they've commented on how enthused the girls seem to be and we might take it on in the future. It's certainly made us think.' (Vicky)

The Special Study lifted her out of the school's pre-occupation with performance-related targets and re-focused her on approaches to effective learning. It *'reminded'* her of her teaching experiences prior to the introduction of the National Curriculum which she saw as a watershed point.

Although Wendy's involvement with Colin was remote, my interviews served to connect her to his Special Study. She underwent a dramatic change in attitude as she became increasingly positive about teacher research. In the beginning, she saw *'no direct correlation between what he's focusing on and what we're trying to do as a school'*, had only a *'very brief discussion'* about the Special Study and *'didn't know where it had come from'* (Wendy). She knew that it was broadly about displays but did not immediately relate this to teaching and learning. She saw displays as a point of reference or revision and a place to showcase pupil work:

'they can refer to it, for example I've got some stuff on Nazi Germany that students did the other week ... and I would say "look, there it is on the posters that you did" and I

think it really reinforces their learning.’ (Wendy)

But by the time of the final interview she had completely taken ownership of the idea of displays as a learning medium:

‘It’s been about classroom display and making that interact with the lesson. In the past...displays...were nice and pretty but didn’t really further learning very much, whereas I get the impression with these that they are furthering learning a lot more. Not just being pretty....Displays in there are inspirational, intended to develop pupils’ learning.’ (Wendy)

She became effusive in her praise of Colin’s positive impact on the department, which had helped to *‘reinvigorate geography teaching within the school’* through *‘some really innovative ideas’* (Wendy). She was particularly enthusiastic about his rebranding of a classroom cupboard as a *‘tardis’* through which the class could travel back in time to achieve a better understanding of how London Docklands had changed over 200 years. She decided to invite Colin to present his findings to a curriculum area meeting and could now see the relation between classroom research and school improvement.

Wendy also became supportive of the notion of P/TLCs as a vehicle with potential to bring teachers together in common cause for the school and effectively enhance unity and loyalty to the community of practice:

‘...it would be interesting seeing in the long term whether we could make classroom based research part of CPD. So that people didn’t feel that in addition to their six or whatever hours of training they’ve got to do, they could spend their time doing this and in the end of it produce whatever....and then feedback to say I’ve done my six hours because for some people that would be more beneficial than going to sit in a training programme. I mean for some people going to training programmes because they’ve got to tick a box as opposed to, you know,....it being a performance management target for example to actually conduct research. As we’ve seen from Colin it can have really good dividends for what we do.’ (Wendy)

Colin’s action research had a wide reaching impact among other teachers within and beyond Humanities. Many had *‘been really supportive’* and he identified a shift from an initially

sceptical response, for example that posters tend to fall down to something much more positive:

'The class teacher said "wow that looks good"...and this morning two others were both looking at the wall and talking about it...It was quite nice seeing them taking more of an interest in their space.... one of the teachers has already put up a few posters where there weren't before, which is good ... I know one (other) teacher who has thought maybe they should do something about wall displays.' (Colin)

Word spread beyond, to other departments and he recounted how:

'One of the teachers in another department said "you're doing a study on posters, aren't you? Do you want to come and have a look at my room?" I don't know if she'd done it anyway or if I'd encouraged her to do it but she was quite proud.' (Colin)

Vicky also commented on this. Even at the early stages, Vicky noted staff interest and the prospect of gaining from his results:

'we've all been talking about it ... the teacher who's room it's in has been very supportive ... the others are all aware....we want to get some feedback from him about how the classes reacted.' (Vicky)

She welcomed Colin as a researcher who's work might not only be instrumental in the sense of delivering an evidence-led conclusion for promoting geography but also in piloting a new approach to teaching and learning which others may follow if it proves successful.

Of course, the project had an impact on Colin himself. It contributed to his own professional development. Through engaging in researching his own practice he *'got more confident in using wall space'* (Colin) and thereby overcame an anxiety of his own. Through the research process he became more conscious of how to integrate displays into teaching other classes:

'In fact working with the Year 10 project...it probably is more effective than what I did with the Year 9 for the Special Study ... I think I'm gradually finding more ways of improving these walls... helped me look at something that I wouldn't have looked at before....and encouraged me to be reflective in my practice.' (Colin)

He commented that classroom research:

'Makes you just more aware of what you're doing...to encourage you to develop and test your ideas...actually evaluate things and make sure...they work properly... and maybe whet your appetite for doing this kind of research in the future... I wish I was doing this when the workload was better in a couple of years' time.' (Colin).

Colin's placement and Special Study took place within the context of micro-political conflicts and it was interesting to observe how conflicting interests competed to use the Special Study to further their own respective positions. As a member of the SMT, Wendy was the most politically powerful of the respondents and aligned herself closely with the school mission. This was closely bound up with its 'outstanding' status and the maintenance of excellent exam results. The performance of the Geography department was perceived as a threat to school success and was under scrutiny by the SMT, which had established a departmental action plan, with clear goals *'to try and...invigorate it and improve exam results and uptake...'* (Wendy). The department was perceived as needing change, the staff seen as unlikely to reflect on practice or innovate due to low levels of ideological commitment and in some cases because of the late stage of their career. For Wendy, student teachers had a very positive effect because *'they bring that extra enthusiasm and have some really good ideas for things and so far in Humanities we haven't had someone who hasn't added positively to the team'* (Wendy). She even acknowledged that he had given her cause to reflect on her own practice, recalling a moment when Colin had used a bell to call pupils' attention:

'I was thinking "do I really want that?" ...so I had a bit of contemplation about that and it made me think about different ways of doing things.' (Wendy)

Not surprisingly, she also noted that trainees had *'got lots of time to plan things.'* Having student teachers *'makes everyone think about what they're doing'* (Wendy). She was keen to optimise the benefits of his influence as she said:

'I would have liked him ... and I might still have time to do this ... to come to the Curriculum Area meeting and talk about what he's done and how it's invigorated ... I might even ask him to come tomorrow and talk briefly about what he's done, how he's integrated it into his learning and that sort of thing.' (Wendy)

For Wendy, he was an ally in a process of 'modernisation' and represented an opportunity to *'bring extra enthusiasm...and good ideas...'* (Wendy) to the department; to invigorate

departmental practice from within, unencumbered with the political baggage of the re-organisation or perceived dispossession felt by the geography department which I will discuss shortly.

Meanwhile, Vicky perceived herself and her department as under threat from both external and internal forces and welcomed Colin as an ally in the defence of the department. Disappointing exam results were attributed to the external influence of the GCSE exam board and an over-burdensome specification which had subsequently been abandoned in favour of another board. Internally, she saw the department as suffering from a sustained and prolonged marginalisation which she related to the loss of subject-based identity. This was related back to re-organisation into a Humanities faculty six years earlier and was exemplified through room allocation issues. Some staff no longer had their own teaching base and the subject as a whole had been subsumed into Humanities:

'We used to have a geography department. Four classrooms around a resource base. And people would know they were in Geography. And we would have display boards in the corridor. And then we were reorganised as Humanities and we were pretty much split up. So we got history and geography classrooms; there wasn't a geography focus. There have always been two of us next door to each other but we were split up because the idea was to make a Humanities, so we weren't Geography/History separate but that we were all one. It did mean that girls said 'so where's the geography dept gone?' (Vicky)

This sense of dispossession was a recurring theme in her analysis and pointed to a goal of re-creating a geography environment. She feared that at present *'the girls don't feel it's geography...a geography room can have a real personality about it'* (Vicky).

She had originally wanted Colin to focus the Special Study on a survey of what pupils did or did not like about Geography in order to boost its popularity during GCSE option choices. However, she was easily persuaded of the benefit of focusing instead on the development of displays which might contribute to the subject's popularity. In Vicky's view the past re-organisation of the Humanities faculty made it difficult for Geography to project a distinct identity to the pupils. This echoed her belief expressed in an early interview that the popularity of the subject was related to its visibility rather than the pupil experience of learning. She was particularly keen to use corridor rather than classroom space for Colin's displays because of

the shortage of available wall space within classrooms for Colin to use and assured me that there would be no problem going out and doing the display during lessons, *'in fact it would be far easier in a sense because there's no one in the corridor'* (Vicky). Furthermore, it would have the advantage of raising the profile and presence of geography within the school: *'displays in the corridor make it seem like "oh, you're in geography now"'* (Vicky). For her, the Special Study was an opportunity to re-establish departmental identity through the marking of space. She made an association between pupil ownership and engagement resulting from pupils having their own wall displays and her own aspiration for ownership of departmental space. It also opened the possibility of a collaborative and developmental school culture, if only it were possible:

'It would be quite nice I suppose to do something as a group, not just as one individual within the department. But then that's got to have time.' (Vicky)

From all points of view, therefore, Colin had significant potential to be an agent of change, a nexus for consensus and convergence of conflicting interests rather than being a mere apprentice. Both Wendy and Vicky saw their position within the field of the school as likely to gain strength through Colin, but in ways particular to their contrasting agendas. Meanwhile, I found my legitimate focus for interaction with the participants through his Special Study as well as his training in general. The interviews showed that attitudes to classroom research changed significantly over time and this could be attributed to the teachers' engagement with my interviews as well as with the Special Study process itself and especially because of the way that it aligned with their strategic interest in the micro-politics of the school.

Colin was sensitive to his paradoxical position. On the one hand he was a legitimate peripheral participant (Lave and Wenger, 1991) while on the other an innovator and agent of change within the department. In spite of occupying the lowest rung of the professional ladder both mentor and professional tutor had expectations and hopes that he would act as an agent of change for their respective positions within the community. To an extent he relished this: he felt better informed about teaching and learning theory than some of his experienced colleagues; he increasingly understood the benefits of researching his own practice; he could visualise and project his own an ideal teacher model which differed significantly from what was modelled around him. On top of this his display work had actually succeeded in leading to

change in practice among a number of teachers and had made an impression on the Professional Tutor's views. Thus he found himself in the role of a leader in learning rather than an apprentice. However, balanced against this, Colin was uncomfortable with the expectations placed on him. He naturally wanted to fit in and be accepted, to know his place; he feared the repercussions of being perceived by experienced colleagues as a 'know-all' or an upstart; he hankered after the security of clearly observed boundaries that would be afforded by unequivocal Legitimate Peripheral Participation. He was understandably reluctant, as a mere student teacher, to accept responsibility for departmental development.

His prime concern was to complete his placement successfully and did not *'want to seem as though I'm gloating or rubbing teachers' noses in it that they're not doing anything like that'* (Colin). He did successfully complete his professional practice and moved on from the school, so he achieved these closely defined objectives. However, the Special Study provided additional depth to his developmental journey. While students tend to perceive their school experience as the most relevant and important aspect of their training, where they can learn from expert practitioners (Ahlstrand et al., 1996), Colin had to manage the expectations of his school-based colleagues who looked to him to bring innovative, exciting and new ideas like his display work into the department, constituting an in-house extended form of CPD.

The interviews revealed contrasting and fluid conceptions of teacher professionalism and the place of research within this. By the end of the research, all the participants were enthusiastic about the notion of teacher research, even if they had not been at the outset and institutional factors meant that they were not able to practice it. Although Colin described his department as *'not as open to new ideas, probably happy with their own teaching styles'* (Colin), Vicky was exceptional in her engagement with the research world. She recounted how she had read her mother's copy of the Times Education Supplement and books like 'How Children Fail' (Holt, 1964) when she was fourteen. She understood how research could inform pedagogic change and how teacher research was particularly powerful as it not only enhanced reflection on practice but was relevant, low cost and closely attached to the interests of teachers themselves.

Colin was excited by the idea of the teacher as co-enquirer, not just in relation to the content of a geography lesson but also to researching teaching and learning in the classroom:

'By doing our own research we can expect our students to do some research as well ...you've got more authority when you're expecting the students to do their own research as well...if the students know you're doing a study, you'll get more credit as a teacher if they know you're really into your subject. And you're involving them in something that you're researching as well.' (Colin)

Through conducting his Special Study he came to believe research should have a place in teacher professionalism, although he *'couldn't help thinking ...I wish I was doing this when the workload was better in a couple of years' time'* (Colin). He was keen to be an active agent, an innovative and up to date teacher. In relation to this, he was critical of teachers who have taught *'one year's experience thirty times'* (Colin). He looked forward to a time when he was established in his career and believed his workload would then be lighter: *'I'm pretty sure that teachers could squeeze in a bit of extra work if they wanted to'* (Colin). It was significant that in these comments he recognised teacher research as a potential part of the role of being a teacher.

Wendy's view of the place of research within teacher professionalism changed over the research period. Initially, she saw it as a superfluous add-on to the profession of teaching, irrelevant to the school's agenda of *'being an outstanding school and having outstanding exam results....there is a limit to the number of hours people can possibly work'* (Wendy). At this stage she could not see the potential of researching one's own classroom as a means of achieving more outstanding teaching and learning. But through the interview process she came to recognise a link and commented that *'there are teachers who are interested in new things and would be interested in research but find themselves very busy doing other things to make sure we are perfect'* (Wendy). In relation to this she remembered how she had no shortage of volunteers in the past for coaching initiatives and there were even some teachers on Masters programmes. Later still, she was enthusiastic when introduced to the idea of P/TLCs and given allocated time:

'If it was fully integrated in that kind of manner it could be really positive and colleagues would really enjoy it, rather than as you say an add on, something extra....Stopping, taking stock of things, finding out what other schools and professionals do and what we do and putting them together to see if we can improve things... It's very easy to get stuck in a rut and classroom research can really get you out...It would be interesting seeing in the long term whether we could make classroom research part of INSET and CPD... As we've seen from Colin it can have really good dividends for what we do.' (Wendy)

But while the participants were enthusiastic about teacher research, Aldley did not make this possible through any institutional arrangements. All commented on the lack of time and this was a recurring theme in the interviews. Colin understandably commented on the additional workload involved in the Special Study, yet maintained that the process was valuable and would have liked to do it *'without the time constraints of university deadlines'* (Colin). Vicky also repeatedly mentioned time:

'We haven't had a chance to discuss these things...it comes down to time...I think it needs a big change overall in the school, so that the time you spend on something like that is appreciated. The only research that has gone on in this school that I am aware of...is people doing MAs.' (Vicky)

Other practical barriers were mentioned which indicate how teacher professionalism can be adversely affected by a sense of intuitional restriction and disempowerment which nearly blocked the display project before it had started. Vicky had used displays in the past but saw numerous obstacles to using them in her classroom. These included a lack of wall space with display boards, obstacles like cupboards which block access to wall space, Trade Union advice limiting time spent on displays, difficulties fixing displays securely and health and safety regulations prohibiting standing on chairs and which even limit what Christmas decorations are allowed. Colin saw these barriers as relating to system restrictions rather than individual lack of motivation but recognised that Vicky's response had been to retreat into a 'can't do' attitude:

'I think the mentality is if the school want pin boards then the school should put pin boards there or they shouldn't have covered the pin boards with cabinets in the first place.' (Colin)

But if teacher research seemed beyond practical reach, Vicky and Wendy were both enthusiastic about student teachers like Colin doing it. He was seen as having more time, imaginative fresh ideas and University-trained research skills: *'They always come up with lovely ideas ... get really good images and ideas for teaching ... Because they've got lots of time'* (Vicky). The benefits of his Special Study were fully appreciated. Wendy commented how research engagement for trainees was a valuable way of distancing them from their own immediate concerns and achieving a wider perspective of their role as a teacher. She had

become enthusiastic about the potential of research involvement as a means of improving teaching and learning: *'I can see it as more valuable rather than an add-on but something that can integrate and improve practice. As opposed to something you do...a box to tick'*(Wendy).

All three participants emerged from participation in my research period as believers in the principle of the teacher researcher but unable to visualise how this could become an institutional reality given current arrangements. Student teacher research was seen as a proxy which offered certain distinct advantages. Foremost, was the greater availability of time. But in addition, Colin could combine the benefits of insider and outsider status. Through the school placement he had become a partial insider, partially accepted into the community of practice and allowed sufficient insider knowledge to know the class and the school. At the same time, it was unquestionable that he was at the bottom rung of the teaching ladder, a transient and therefore not fully accepted member of his professional or school community. He remained a partial outsider, under surveillance by mentor, Professional and University tutors. Ironically, the outsider aspect of his identity endowed considerable status, the advantage of association with the University and access to high status University-based knowledge. It also gave him a broader perspective from recent experience of another school and regular communication with peers training in other school contexts. As a partial outsider, he was also able to mediate micro political tension between Wendy and Vicky just as a visitor can distract attention from conflicts within the family.

4.2 BENTHAM SCHOOL

4.2.1 A Brief Portrait of the School

Bentham is a mixed 11-18 urban comprehensive school. Its catchment area is socially and ethnically mixed although in overall terms deprivation is limited, with only 14% (half of the national average figure) of pupils qualifying for free school meals. In a large urban area with a number of competing secondary schools, Bentham had developed a local reputation for academic success built on traditional values. It could have been described as a hierarchical and results-driven school, which organised classes by ability-based sets and insisted on uniform checks before every lesson. It had been a Sussex partner in ITE since at least 2003 and the school recruited a large proportion of its teachers through this.

INSET and CPD were delivered by a top-down model which was linked with the performance management reviews of all teachers. Roles were clearly demarcated within the school and the Professional Tutor who was a member of the SMT, exemplified this by his view that teachers should teach, leaving research to be the domain of professional researchers. Teacher involvement in Masters level study was seen as a matter of personal career development rather than an aspect of school improvement. Teacher-led classroom research was not an aspect of the school culture and P/TLCs were unheard of. At the time of the research it was judged by OFSTED as 'outstanding' but it had been recommended that teachers develop strategies to support the development of independent learning.

4.2.2 The Participants at Bentham

Daisy was an extremely hard working, eager to please, enthusiastic and imaginative student teacher who had previously worked as a teaching assistant in another school. This increased her confidence and motivation to succeed on the course. I enjoyed a very good working relationship with her. Her prior experience, strong social skills and enthusiasm to participate enhanced her social and cultural capital within the department. She had considerable ideological motivation, was enthusiastic about curriculum making and giving voice to pupil views. She was therefore happy to focus her Special Study, as suggested by her mentor Hugh, on pupil views about the KS3 curriculum. This survey could then be used to inform a review due for the following academic year. The Special Study was therefore a case study of pupil opinions about their geography curriculum experiences. It involved interviewing geography teachers to establish their subject interests and priorities. These were then used to construct a questionnaire which was issued to a large sample of KS3 pupils. She also convened pupil focus groups to find out which topics and learning activities they most appreciated. This would allow her to propose the future curriculum.

Hugh had mentored geography PGCE students at this, his first and only school, for seven years having completed his own PGCE as one of my former PGCE students. He was therefore familiar with the demands and contributions that a trainee teacher brings to a department and the Special Study in particular. He held the departmental responsibility for the KS3 curriculum and Daisy's Special Study was therefore an opportunity for him to obtain a research base for the changes he would be responsible for. Hugh and I enjoyed a relationship of familiarity and trust, although I was in a position of power given my University tutor role, present and past.

Professional Tutor Brian had fulfilled this role for over 15 years having worked in the school for over 25 years. I had worked with him in a Partnership capacity for five years at the time of research and so we also enjoyed a mutually respectful and trusting relationship. As he was nearing retirement, there was a sense during the interviews that he was preparing to detach himself emotionally and ideologically from the school, in a manner reminiscent of what Huberman (1993) described as ‘disengagement’.

4.2.3 The Bentham Interviews

Brian and Hugh both valued the inclusion of the Special Study in the PGCE for utilitarian or instrumental reasons. On two separate occasions Brian cited the value of an excellent unit of work which had emerged from a Science Special Study in a previous year and had been extremely helpful to the department. Meanwhile, Hugh was particularly interested in the new ideas, resources, schemes of work and research inputs that students could contribute to the department. He hoped that Daisy’s research would inform curriculum development while enhancing coherence between KS3, 4 and 5. In his view *‘the Special Study is the one part of the Sussex PGCE that without a doubt has the biggest beneficial impact on the school’*

This beneficial impact could be identified in numerous spheres. While her research did not affect teaching and learning at the time of data collection, it was anticipated that Daisy’s results would significantly influence the new KS3 curriculum in following years. While conducting the research she commented how pupils were affected by knowing that she was engaged in the enquiry:

‘... I think that’s really important that kids know that teachers don’t know everything. Like that you’re learning as well....They know that you’re actually interested in them and their opinions and what they want...“she really cares about what she’s teaching, it’s really interesting”.’

The Special Study positively engaged other teachers in the department. Daisy had *‘lots of chats with Hugh and other members of the department about it’* Indeed, a conversation with teachers about their favourite aspects of Geography and their teaching preferences was an important part of the research. While the Special Study provided a beneficial output to assist the department, individual teachers were also engaged in reflection through being interviewed

and the department was *'brought together as a whole'* although she doubted that it had generated a culture of research.

'There's a lot of pressure within the department at the moment... they are interested in results. They are interested in it but they don't have a lot of time for it. If there were eight days in the week and they had one day they might be more interested.' (Daisy)

It had a very positive impact for Hugh. As the KS3 geography co-ordinator it was his responsibility to review and revise the KS3 curriculum and so Daisy's research directly informed him. He conceded that had she not conducted this research, he would have had to do so himself during the summer term. But the methodological rigour, validity and reliability gained through University supervision and assessment provided additional legitimacy for any changes that he might go on to make. It also had a positive effect on his own pedagogy notably how to integrate Assessment for Learning (AfL) more effectively into his own classroom practice:

'We often go and teach a lesson and we never actually ask "actually what did you enjoy, what did you learn?"...we don't do that enough. They've all got strong opinions and they're the most qualified to answer. You get a totally different perspective as a teacher in front of the classroom to a pupil sitting there.'

The impetus for reflection was particularly significant for Hugh, given his lack of experience in other schools. Here he found himself working under a vertical command structure, with high workload and inadequate opportunities for reflection. Under such circumstances it was difficult to engage in a professional dialogue about ideals or alternative goals. Yet, the arrival of a student teacher created openings for this as well as more instrumental contributions. Daisy's presence stimulated discussion and reminded Hugh of his submerged idealism. During my interviews with Hugh, his views changed from amusement with the idea that schools might include research within their culture to a genuine interest in the notion and an understanding of how SMT influence school culture:

'...the most important thing is that if something was valued at the top then that would lead the ethos of the school to change but also the most crucial thing that would be more time to do that. Instead of having an INSET where you're sat in a hall for four hours you might then go independently, or as a department or cross curricular or whatever and work on those things....research is not something that is ever talked about...not something that senior management see as particularly important for someone to be doing.'

Brian had very little involvement with Daisy's Special Study. Yet his interviews revealed how the process of student teacher research could be used in a variety of ways to support the responsibilities of school management. His recognition of the power of process was surprising given his view that research was the domain of professional researchers. First, he presented value in the Special Study as a means of stretching and challenging student teachers to think beyond behaviour management: *'Trainee teachers are only worried about discipline all the time. It's quite good that they have to do some research as well'*. On a related point he thought the additional workload created by the Special Study was *'good for them'* as it prepared them for a high-pressure career and large workload. As such, it served as a useful sifting tool for the quality of emerging teachers, of testing the resilience and stamina of potential employees: *'it can distract I suppose, but good candidates can cope but weak ones, if it proves that they can't cope it's probably a good thing too'*. Second, he commented that student teacher research introduced a constructive form of scrutiny into school departments which forced classroom teachers to:

'Think about their own teaching when there's someone else in the room... in a way they wouldn't normally...To explain to the student what they are doing.....it would make them think about their practice.'

In this way the student teacher provided a meta-presence; a mirror for teachers to reflect on the rationale of their own professional practice; a form of benign surveillance of teacher activity which encouraged the adoption of a more profound internalised sense of surveillance. As a member of SMT he was keen to encourage any practice which brought about performance improvements and student teacher research might do this.

For Daisy, the Special Study had an impact on her understanding of what was possible in relation to her own position within the school. As a PGCE student, she occupied the lowest position in the department hierarchy. However, her prior experience and personal attributes gave her an unusual degree of cultural capital and credibility for a student and allowed her to be fully accepted within the department and school. Her Special Study was both an instrumental contribution to the Geography department and an exercise in her own belief in pupil and teacher voice. Being asked to present her findings to experienced colleagues and knowing that her results would influence the future curriculum boosted her confidence. In contrast to being the lowly PGCE student and legitimate peripheral participant, she found

herself positioned as a quasi-consultant to the department, building upon University-informed research credentials. Daisy's developmental journey was paradoxical. On the one hand it reinforced her belief in the importance of an enquiry based classroom including teacher research; and on the other she was confronted with the impossibility of achieving this in a school which did not incorporate these values in its structures:

'I guess (the Special Study) just reassured me that it is important but it's really clear to me that increasing my hours and watching the teachers around me with a gazillion things to do that it is really hard to conduct research within the full teaching post with other responsibilities... If kids have the sense that teachers around them are doing research and stuff, it creates more of a sense of self importance and creates more of a culture of wanting to learn. Because teachers want to know rather than knowing and passing it on...'

In addition to its instrumental and cultural impacts, the Bentham case engaged Daisy and the department in both explicit and implicit processes of knowledge creation. The production of a future curriculum, a package of propositional knowledge for consumption, was an explicit form of knowledge creation. Meanwhile, the process of engaging teachers and pupils in dialogue about what aspects of Geography matter or appeal to them gave both parties voice and power over the future KS3 curriculum and was implicitly constructivist. This involved teachers and pupils in defining what constituted Geography within KS3 of the school. The interviews illustrated the diverse views of geography teachers on this, most easily characterised by respective interests in human or physical geography but further detailed by their interests in particular topics of study. These ranged from the well-established, for example on settlement or coasts to more exploratory topics. As Daisy noted of her colleagues, *"...they've all got quite different ideas....they're all quite different geographers'..* As a non-geographer, Brian expressed some of the general public's misconceptions about the identity of the contemporary subject:

"They don't do very much Geography on Britain. They do Kenya and Brazil...whenever I ask them any questions on the South Downs they've never heard of them or sandstone or clay or whatever...They seem to concentrate on tourism in Kenya and Brazil.... Glaciation is an idea in Geography, and map work...I used to find it most fascinating myself..."

The situation at Bentham was a microcosm of a wider national contestation of how to define Geography. At the time of the research, teachers including those at Bentham, were still adapting to the curriculum-making powers given by the 2008 National Curriculum which

allowed for ever greater divergence of subject interpretation. Outside the subject community it was common for people to expect Geography to be principally locational, the study of where places are and what they are like. Meanwhile, within the subject community, locational knowledge was widely seen as an inadequate curriculum without an exploration of why they are this way and how they inter-connect with each other. Debate continued regarding the relative emphasis that should be placed on detailed, located exemplification versus theoretical explanation of patterns and process. Thus, the Bentham KS3 geography review was set against a national backdrop of debate, within and beyond the subject community, about the meaning and purpose of Geography. Within the school, Daisy's research contributed to constructing what constituted the subject at the local level.

Her research placed pupil needs and opinions not only at the centre of the curriculum review but also of the department's professional knowledge for teachers by '*...finding out what the kids actually want to learn and if we're engaging with them in the right ways*' (Daisy). Although Hugh had asked her to research pupil opinions, he had not given much thought to how far the department might follow the pupil voice lead; and while all topics offered on the questionnaire had been agreed with the teachers he had not considered yet how to respond to student priorities that might not coincide with staff's priorities. The point here is that teachers can easily lose touch with their pupils under the pressure of teaching and may not entirely share their perspectives and values. For example, two topics which teachers thought would be interesting for pupils – 'Sustainability' because of its current topicality and 'Coasts' because of the associated fieldwork and kinaesthetic learning activities were widely unpopular with pupils.

The model of teacher professionalism projected by Brian and Hugh was one where teachers teach and leave research to expert researchers who might produce useful reports and recommendations for teacher consumption. Timetables were constructed by the SMT with the same view that teacher time is to be occupied with face-to-face teaching: '*As a teacher working full time we are so busy....it would be lovely to be able to....*' (Hugh). Both pointed to the lack of time as the most significant barrier to teacher participation in research. In spite of this when the interview invited him to pursue this 'utopian' idea, Hugh could relate to this as a vision for good practice:

'It would allow teachers to keep that interest and enquiry into Geography ...to keep up to date with what's going on...also from a teacher viewpoint, help to have an understanding of what pupils are doing. We want lessons to be less teacher led...for pupils to have enquiring minds....if you're doing that as a teacher it might inspire you by your lessons to try and get some of that to your pupils...It would be really interesting and rewarding. It would help to keep me as a teacher really enthusiastic about the subject. It's a shame that when you go off after University that you're not able to do it anymore...it would be brilliant'.

Back to reality, Hugh reflected that the general view in Bentham would see no role for teacher research in the process of school improvement. The school's cultural emphasis was firmly on teaching rather than learning as reflected by OFSTED comments, with little importance given to pupil voice. Hugh speculated that under current arrangements, were a teacher to engage in research it could only happen in the summer term when *'there's less pressure and you're a bit freer.'* Research was imagined as a task to be done where necessary, slotted into an available block of time; it was not imagined as an embedded part of on-going practice. Similarly, Brian was pleased to see student teachers researching where this was useful to their department but did not extend to seeing research as the role of experienced teachers. He did though, see a possible remedial role for teacher research. In the past, some teachers were given timetabled observation periods to learn from good practice, but this was concentrated on teachers who were seen as needing models of good practice to improve their own. This is done *'less now for economic reasons'*. The facts that coaching and peer observation were restricted to weaker teachers and then cut as an expendable and unnecessary expense both reflect the peripheral nature and low value attributed to reflective practice:

'If someone's feeling tired and de-motivated in their teaching it might inspire them, if you can afford the time to do so...it might change their practice...but everything would have to be geared to whether it would improve the exam results I am afraid.'

Brian doubted whether teachers would be motivated to become individually research-active and had given no consideration to its part in teacher professionalism or the institutional arrangements that might support this:

'I just don't think it's really practical....teachers aren't really motivated by money, but I think they'd have to see that to do anything extra they'd have to be motivated by some...financial gain really....Everyone works so hard I think that the thought of...what would be the advantage of doing it?'

He counter-posed teacher research with teacher performance and was concerned that research might become a distraction from the real business of teaching; that teachers might *'do research and not do all their marking or preparation—that's a worry I would have'*.

Classroom research was seen as something additional and superfluous to the job of teaching which did not relate to achieving school improvement other than in a remedial sense.

Daisy offered a wider view of teacher professionalism supported by her relative maturity, alternative experience, confidence and firm idealism. To her, researching her classroom was essential to meeting her pupils' needs (*'it raises my awareness'*) and acknowledged it as an important dimension of her role as a teacher (*'doing a research project now sets us up to be able to do it in the future'*). Its inclusion in her training had developed her reflectivity.

However, she was clearly affected by the surrounding cultural view about time constraints and expressed concern that *'once I get a teaching post there won't be so much time...it's nice to have the time and opportunity to do it now'*.

Although Hugh did not find it easy to imagine teachers being researchers, he was already a believer in the idea of the student-teacher-as-researcher having completed a Special Study during his own PGCE and saw research as part of the process of ITE. As mentioned, he considered student research capacity the most significant asset for a host department, a form of repayment to a host department rather than preparation for a research dimension of teacher professionalism. He considered the advantages and disadvantages of the model. On one hand, Hugh saw Daisy as having the time and facility to conduct this research. Her relative detachment would allow her to be more objective and the value of a recent experience in another school gave her the facility for comparative criticism. Her research was methodologically rigorous by virtue of University supervision and guidance therefore giving it legitimacy and currency within the school. As Daisy herself said *'you've got a much better chance of presenting your argument saying "I've done this" and justifying change and your position'*. Pupils would know she was a relative newcomer and if they saw her as more of an outsider they would be more honest in their questionnaire responses than they might be to long term teachers. On the other hand, Hugh noted a key disadvantage of her being a relative outsider was that she lacked much tacit knowledge, including a coherent overview of the geography curriculum and this would limit her contribution to the KS3 review.

4.3 CAXTON SCHOOL

4.3.1 Brief Portrait of the School

Caxton is a mixed 11-18 comprehensive community college in a small rural town. Although there are pockets of rural poverty, the catchment area is generally prosperous with the number of pupils qualifying for free school meals being only 11% (compared to the national average of 28%). The locality is among the 25% least deprived areas of England according to the Index of Multiple Deprivation (IMD) and over 95% of the population are described as white British. However its peripheral location and low population density mean that it is in the IMD lowest 25% of areas as regards access to services.

The Staff Handbook emphasised partnership with its community, local enterprise, neighbouring schools and global twinning partners. It was a long-standing Sussex partner for ITE, although its distance from Brighton and other major urban areas made it a long-haul placement for students to reach. The school celebrated a commitment to lifelong learning and expressed a clear commitment to innovation and risk taking. Its mission statement placed importance on the skills and processes of learning and creativity rather than propositional knowledge alone. This included the fostering of co-operative values among students and staff.

Its last OFSTED report concluded that it was 'good' and improving, identifying a number of characteristics which suggested a very open, democratic, and collaborative culture. It was commended for being forward looking and fostering very effective relationships between students, staff and teaching assistants. Pupils were described as keen to learn. There was a calm and co-operative atmosphere around corridors and open spaces. Students responded responsibly to open access of many of the College's buildings and participated enthusiastically in the decision-making process which has a well-developed structure for representation. Students were even involved in staff training days and contributing to the formulation of the school improvement plan. Caxton had a strong leadership team which was determined to improve the school and establish greater consistency in 'good to outstanding' teaching.

Caxton was a school working towards self-improvement through an open, collaborative approach involving teachers in evidence-based enquiry of their own classrooms. Caxton had been operating P/TLCs for many years as the vehicle for managing CPD and was the most committed of the sample schools to this model. The community of practice in Caxton was more broadly defined than in Aldley or Bentham, projecting as it did an ethos that embraced the concept of community within and beyond the school walls.

4.3.2 The Participants at Caxton

Student Ali was, by disposition, one of the most enthusiastic PGCE students I have worked with. He projected so much enthusiasm that at times his thoughts overtook his ability to articulate them. However, this enthusiasm was dented by the distance he had to travel every day from his home to reach his school placement and the challenges of adjusting to a second placement which involved starting again in a new school just as he had found his feet in the first. He had become very interested in the subject community debate about the place of locational knowledge in geography. Since Chorley and Haggett's (1967) influential 'Models in Geography' had articulated the discipline's venture into identification of pattern and process in place of descriptive detail there has been a disjuncture between the academic work of geographers and the construct of the subject in the public imagination. By 2006, some geography teacher educators argued for pattern and process to be taught through 'place studies', embedded in locational detail rather than taught in the abstract and then illustrated through the 'case study' (Brooks, 2006). Ali's Special Study was designed as action research to determine whether an increase in locational information during lessons would increase pupil attainment. Alongside this, he would survey the occurrence of locational knowledge within the Caxton geography curriculum and the alignment of location-specific assessment descriptors to classroom activities. The topic was already a departmental concern and while it was initially his own choice, his mentor saw it clearly aligning with this and so hoped his research would support them. The study was built around action research involving repeated cycles of enhanced locational input followed by pupil assessments.

Ali's mentor, Karen, was also the Head of Geography. She had mentored three of my previous students and I therefore had a good working relationship with her. She was very committed to her own professional development and had previously participated in interviewing for prospective PGCE students and end of course assessments. She had also participated in

marking and moderating PGCE students' assignments. She was ideologically committed to the principle of teacher research and played an active role as a P/TLC leader. Given our past collaboration and common ideological position, we enjoyed a mutually respectful and trusting relationship. Caxton had embedded teacher research as an expectation for all staff and the approach to INSET, CPD and school improvement. Karen was very committed to this culture and an eager participant in these interviews. I was so interested in finding out about Caxton's P/TLCs and Karen's views about teacher research that at times it seemed that the ostensible focus on Ali's Special Study was in danger of being lost.

Having worked with Naomi as the Professional Tutor of the school for four years, I also had a mutually respectful relationship with her. She was responsible for staff CPD and the P/TLC programme. Unfortunately, she proved difficult to access for interviews since she worked part time and was extremely busy with a range of responsibilities on the days that she was in school. Consequently, the first interview was conducted over the telephone and posed particular challenges to transcribe because of the poor recording quality. The second interview was extremely brief since the allocated meeting time was delayed due to unforeseen school events and then curtailed by me because she seemed pre-occupied with other matters. The final interview did not materialise because, in the event, she was unavailable for interview at the pre-arranged time. Her perspective is therefore not given as much profile as I would have liked.

4.3.3 The Caxton Interviews

Caxton presented a fundamentally different perspective to Aldley and Bentham on questions of teacher research and the position of students. In some ways it presented a story of research success: a school trying to develop a teacher research culture within a democratic community ethos and the interviews say a lot about the progress of this endeavour. At the same time it includes insights into mistakes and shortcomings of this endeavour and tells the story of a student research project which disappointed the department.

The concept of 'community' lay at the heart of Caxton. This was evidenced by its multi-faceted role in the settlements it served, the relationships and learning environment it had created for

its pupils, the collaborative and enquiring community of practice it was building among its staff and the values it aimed to project among pupils and staff. While this may have reflected an ideological position, it also reflected the geographical reality of serving an isolated rural community with few cultural, training or recreational facilities; as one of very few public institutions in the area it genuinely had to justify its soubriquet of community college. OFSTED judgement and the pressure of exam league tables did not seem to compromise its commitment to its core values, perhaps because Caxton did not face competition from other schools as it might have done in a more densely populated location.

Within the school, Caxton was developing its community ethos through P/TLCs as a means of bringing staff together, encouraging reflection and classroom research. This was now the principle vehicle for INSET and CPD. Naomi who was responsible for managing them explained their purpose as:

'To develop a professional learning culture for kids, teachers and non-teaching staff. ...we call them Professional Learning Communities where teachers work together on classroom action research and contribute towards our improvement plan....All our teaching staff are involved, all teaching assistants and sixteen of our support staff. The only exceptions are part-time staff who did not work on meeting cycle days were exempt from involvement.'

P/TLCs were allocated one twilight hour per half term, six over the year, so this formally acknowledged and integrated them into the school meeting cycle. Each of the six sessions focused on a stage of action research: developing an initial action plan, reviewing and refocusing to plan for data gathering, reviewing and sharing data, a free session in lieu of a non-contact period given over to peer observation, feedback and sharing from peer observation, and finally a session for writing up their findings.

Staff choice was seen as an important tool for giving them a sense of ownership to the process and there was a wide range of communities to choose from. Peer rather than performance management observation was seen as a central mechanism for improving practice. Therefore, the P/TLCs were designed to exclude senior management from any of the leadership roles, since:

If you've got as leader a member of the leadership team...it can hinder the creative flow. We set them up as collaborative, thinking that professional teachers would be able to

work together in groups. But that proved not to be the case and they needed some direction. So this year each group has a leader...they're all lower/middle management level....no one leads from a senior level. And that works much better.'

Karen explained how the teacher-as-researcher culture had emerged over six years from small voluntary groups of teachers who would research something and then feed back to others. These gave way to P/TLC s in the last two to three years, which involved all teachers and had recently linked up with other local schools to collaborate on common themes. This has led to joint practice development days. Each teacher would choose which theme they would opt into, though there was an expectation of participation and directed time was allocated through the meeting cycle. In addition to these cross-school P/TLC themes, all teachers were expected to participate in a rolling programme of school specific development projects during the second part of the year, from January onwards. Teacher research had been very influential in directing school policy –*'I produced a detailed report.... and this will influence how we change it the following year'* –and an individual's commitment to the research culture was a highly regarded quality for career development.

This democratic and research-orientated environment would seem an ideally sympathetic setting for a student teacher to conduct a research project and make a contribution to school improvement. As Naomi commented:

'It would be a real shame to put all this effort into it just to pass the course and for it to have no impact at all on the practice of anyone. A waste of everyone's time. So the departments are involved to make sure it is useful.'

Unfortunately, Ali's Special Study came to be seen as of limited usefulness by other teachers in the department. At the beginning of the research, he expected there would be interest in his findings by the time he concluded *'because [the teachers] were interested to see how their class got on...what scores their students would get'*, although he acknowledged that there had not yet been any impact on other teachers' practice. At the midpoint, he speculated that the research process itself may have had an impact on colleagues: *'maybe subliminally ...through conversations... we'll be thinking about it'*. But he was particularly conscious of teachers adopting resources that he had produced, notably the locational knowledge quiz, and consistently saw this as the main impact.

Karen acknowledged that some of his lesson resources had been useful and adopted by other teachers (*'certainly some of the resources he's used I think would be useful...it was a really good little quiz actually'*) so it had some instrumental value. In the early and mid interviews she remained hopeful that *'once we have his recommendations and his ideas that it will have a bigger impact.'* The Special Study had provoked departmental thinking and discussion about two deeper issues: first, the mismatch between the curriculum content and assessment criteria of some Schemes of Work (*'it confirmed...that it's at odds slightly with the way students could achieve levels'*) and secondly, what was meant by 'locational knowledge':

'..He didn't look at this but it prompted us to look at what we really wanted...it's not just being able to place it on a map, but it's about actually knowing what that place is like, being able to visualise it, ...understand the culture, the geography of a place..It's not just a location on a map but as a distinct place and identity.' (Karen)

Meanwhile, the Special Study had an impact on Ali himself. Initially, he *'enjoyed doing it'* but did not recognise how it had affected his teaching. The knowledge, understanding and approaches developed had been stored away for future reference. He referred to *'interesting things learnt through reading'* and *'how to conduct research'*.. However over time and through conducting the action research he noted some changes to his classroom practice: he developed some locational resources for use during the action research which he valued and would *'probably use again with every class I go in, a tweaked version of it'*. He also now thought systematically about establishing pupil base-line data *'to gauge how the class compares'*.. He also recognised how it had informed his planning and teaching:

You're getting their real views and so can tailor your teaching to them. I've found out some misconceptions my students had, and so thought "hang on maybe we should be teaching it this way instead".'

By the end of the interviews he recognised teacher research as good practice and anticipated that he *'probably would do other research things'* in the future. It had enhanced his sense of agency:

'Doing something that I had made in the classroom....instead of just doing something that someone else had said to me...I designed it. I wanted to find out. I was interested in ...I have my own views on what I thought should happen.' (Ali)

I have already mentioned the contested place of locational knowledge within the geography curriculum, but the interviews revealed how the concept of locational knowledge was of itself a contested term. The Special Study was an opportunity for Ali to develop and experiment with constructs of locational knowledge in the classroom and Karen had hoped it would *'add an extra layer'* to the ongoing effort of the department to embed and raise its profile within the Schemes of Work. Ali's Special Study might contribute evidence on the effectiveness of this: *'I'm hoping it will give us ideas about what we're doing already...see any impact...and hopefully it will back up our views'* (Karen). But this opportunity was not properly taken in part because of Ali's limited definition of the term. During the early interview, he defined it as *'where places are'* with some associated iconic or emblematic features of them, *'what are the capitals, what are the flags'* (Ali). During the course of the interviews, Ali's understanding of how to use locational knowledge within the geography classroom developed considerably as he came to see it was *'not the be all and end all...it's like a starting point to building blocks to fully understand what Geography is as a whole'* (Ali). Engagement with the Special Study matured him and in his final words he recognised the need to adapt the curriculum to the school context: *'I'd certainly tailor how much emphasis I'd put on locational knowledge depending on the type of school I'm at and the emphasis put on it there'*. However, throughout this his definition of locational knowledge did not change.

It is paradoxical that student teacher research in the most research-friendly and community-orientated of the three case study schools should prove to be the least useful to its department. Skilled guidance was available from Karen who demonstrated diligence and commitment to supporting the Special Study and student Ali's development as a classroom researcher. Research supervision was seen as integral to the mentoring process and *'it's always on the agenda'* (Karen). Karen reported mentor session discussions about the data needed, the structure of the questionnaire, the context of the classes and sampling. Her own experience, knowledge and understanding of research methodology and limitations provided student Ali with exceptional support. She had completed her own M Ed and so was familiar with these considerations. She was confident to critique action research projects for example, *'I don't think a lot of it is true action research...I don't think the circle's always completed...and if you miss out the last bit it doesn't have an impact'*. She critiqued Ali's project offering five concrete additional aspects of data that he could have collected including *'some more pupil*

voice....discussion with practitioners... an analysis of the Programmes of Study...the questionnaires could have been developed more...and linked to some theoretical knowledge about educational research' together with an exploration of what is meant by locational knowledge. Her commitment and enthusiasm in support of Ali were underlined by her willingness to liaise with him about it during the holidays.

Yet Karen became increasingly disappointed with Ali's progress. During the first interview she was sympathetic to him settling in to the school, aware that his progress might have been hampered by transition, an increased timetable and a long commute. She became less sympathetic during the mid-interview:

'Once he has had a bit more time to think about things over Easter we'd have some more conversations, e mails, or telephone conversations over Easter about it. To be honest, I don't think he's thought too much more about it.'

Karen continued to allow Ali the benefit of the doubt until the final interview when she expressed her disappointment (*'I don't think there is anything in terms of new insights or material, but it has confirmed what we have been feeling anyway'*.) If the study had never happened *'things would be the same to be honest'* (She believed he had been too *'narrow'* or *'constrained'* in his conception of locational knowledge in spite of her efforts (*'I really tried to get him to think about it but he felt he didn't want to.'*) He had been rather rigid and inflexible about what the Study was trying to achieve (*'he came...with something very particular...and fitted in with what we were doing'*), but was not successful in reciprocating with the departmental discourse about locational knowledge. Just as personal relationships can flounder when reciprocity is lacking, so his Special Study seemed to do.

Reflecting on the experience as a whole she added:

'Whenever I tried to talk to him about it, the answer was always "well I'm going to try and do it at Easter". ..There were points when he would ask for my views but then didn't like my answers because perhaps I was saying "what about doing this or investigating that?"...he didn't particularly like that so then it was ignored. But...you know, it was his study...For some people it works. For Ali it didn't work...I think it depends on the individual. If you're proactive...and self-motivated it's not an issue at all.'

But she re-affirmed her belief in the importance and value of teacher led research and the introduction of this during ITE. She continued to discuss the re-writing of the departmental

programme of study with regard to locational knowledge but Ali's Special Study did not significantly feed into this.

How can the Study's apparent lack of impact be explained? Ali recognised that the department had been supportive and collegial, the fact that '*no one has been too involved*' and that he had been encouraged to have ownership in spite of the extent to which its agenda was instrumental for the department. But perhaps he did not feel noticed amid the initiatives of others in a relatively research-active environment. He noted their use of his materials and their informal discussion regarding his and other research strands. However, he did not experience the positive feedback or eureka moments felt by Colin or Daisy in their researching-lacking schools.

From another perspective, it could be argued that Ali was not exclusively responsible for this outcome. Karen's own commitment and high standards as a researcher-practitioner made her difficult to impress. Furthermore, Ali would have found it difficult to be critical of the department given his peripheral status, especially on matters which the department was working hard to improve. Indeed the fact that it was already a departmental focus made it more difficult for Ali to shed any new light. There is also an inconsistency between Karen's firm belief in the importance of Ali having ownership over his Special Study and on the other hand her criticism of his inflexibility.

Further explanations may be found in the Special Study's inability to advance any of the participants' positional interests. Naomi's interests included responsibility for managing the P/TLC programme as well as overall student teacher welfare. Therefore, we might have expected that the Special Study would have been of particular interest to her as it was situated at the interface of these responsibilities. However, from the outset she made it clear that she had no involvement, nor any plans to become involved. There were three reasons for this: her demanding workload left no time, she knew it was being supervised by mentor Karen in whom she had confidence and the geography-specific topic did not relate to any P/TLC themes. Naomi contrasted Ali to another student teacher in her own department whose Special Study topic related more closely to one of the active P/TLCs and suggested that in future this should

be routine. While she considered student teacher research to be a positive influence on departments she pointed to individual differences between students and it is indeed interesting to speculate how different things may have been if each student teacher had gone to a different school:

'To have a student come in and say "have you thought about canvassing student views, or have you used the latest research into this that and the other"...I mean that is really useful....but it depends very much on how... the student involves the department in the research they are doing....Some are very autonomous and doing it in isolation from any other teachers or mentors...and some are more in partnership.' (Naomi)

Karen had three positional interests: as a head of department, as a mentor and as a professional committed to the ethos of teacher research. Unfortunately, Ali's Special Study failed to fulfil her expectations in any of them. She had hoped for a synergy between Ali's research and the departmental project to enhance locational knowledge within the curriculum but this was weak and Ali had repeatedly ignored her guidance. It progressed parallel to but seemingly disconnected from the work of those around him, and as time went by seemed ever less able to contribute to advancing her interests.

As for Ali himself, his main motivation was to pass the school placement successfully and graduate with the PGCE. He never completely overcame his difficulties integrating to his second placement or the departmental project on locational knowledge. In spite of his natural enthusiasm, he struggled to integrate his Special Study into his teaching routine and wider workload. He perceived it throughout as a required University assignment rather than a dimension of teacher professionalism.

In spite of the disappointing outcomes of Ali's research and irrespective of explanations for this, the interviews did contribute to a wider discourse about the place of research within models of teacher professionalism and the specific formulation of student teacher research. Karen was an articulate advocate of teacher research:

'I'm a massive advocate of classroom based research and its impact. I think it makes you a better practitioner. Gives you a chance to stop, stand back and ask "is what I am doing always right?"...Teachers themselves who know what it is they are trying to achieve in the first place....have hands on everyday experience and have more connection with the

students.'

She demonstrated her principles through her practice. She was leading her faculty on a whole-school project about integrating pupil discussion into lesson planning, working on another project with a P/TLC into improving literacy rate and leading a third gathering pupil reflections about what limited learning in their lessons. For Karen, there was an inextricable link between teacher research and the views of pupils.

'My first port of call is to look at what the students think about it, then parents and carers... Student Voice is a really strong theme in the school. It's second nature when you do anything...'

There was therefore a strong sense of research as an enhancing force for pupils and teachers, a tool for empowerment.

Karen thought research should be an integral part of ITE in preparation for this aspect of teacher professionalism. But she engaged in a critical dialogue about the purpose and value of the Special Study and whether it is currently best positioned to develop practitioner-researcher culture amongst student teachers:

'...Is it an academic piece of educational research? If so it's maybe not at the right point. But if it is research linked to the PGCE part of the qualification (to enhance reflectivity and feedback into developing practice) then maybe it is more appropriate.'

The distinction she makes here between academic research and reflection may have arisen because of Ali's own confusion of purpose, but this raises questions about the distinctive nature of student teacher research: to what extent should it be academic, strategically informed and objective; or classroom based, reflective and subjective, instrumental and insider-informed? Although an advocate of insider teacher research, she demonstrated her intellectual maturity by also noting the disadvantages of insider subjectivity *'you've got an emotional involvement and you've got to separate from that'*. In contrast outsiders, perhaps from University, could contribute a detachment during analysis and *'the best kind of research would be a combination of the two'*. Student teachers are of course well placed to fulfil this role as half-in and half-out members of the school community, semi-insiders.

Ali's comments also pointed towards the need for a hybrid form of semi-insider research through his understanding of the pros and cons of teacher insider-research. On the one hand,

'it's doing it ourselves...we get such a hands on approach...we can approach it in the way we want to and get the answers...research our own pedagogy...it's going to stay with us longer than if we'd read it in a book...'. But on the other hand, there were methodological concerns about validity and reliability for insiders: '...I suppose it could be argued it's too personal. It doesn't correspond to a whole range of schools'.

Naomi and Karen provided some useful critical insights into the weaknesses of the P/TLC system. While these are not central to this thesis, they are of related interest since P/TLCs represent efforts at an institutional level to formulate arrangements in support of teacher research. I therefore report on these critical insights. First, in spite of the formal allocation of time for teacher research, they both thought the time allocated was inadequate and too sporadic to allow for a proper integration into teachers' work:

'One session a term is a really low priority compared to other commitments like getting coursework done, improving your grades...it's just not a priority for them even though they enjoy doing it.. Just having on session a term, they've forgotten what they were doing or they remember they should have done something but they haven't done it...unless you're doing that constantly as part of your planning it becomes less useful.' (Karen)

Second, it had been a logistical challenge for teachers to arrange their peer observations. Although teachers were allocated one hour a term of meeting cycle time in lieu to observe each other's lessons, only 20-30% of staff had so far managed to do this. The allocated meeting-cycle time was after school hours while observations would have to take place during teachers' preparation time during the timetabled day. Teachers had generally been reluctant to give up an hour during the day because of the pressures of their workload. Third, there were no accreditation incentives to support the teacher research. Fourth, the key challenge was how to raise the priority of research through increasing the time allocated and enhancing staff perception of its importance; how to embed it as an ongoing and routine part of daily practice and lesson planning.

'These meetings keep coming up but don't have enough profile. If they expect us to do this and for it to have an impact, it should have a higher priority and profile. So that people are constantly working on it rather than "oh my goodness, it's P/TLC meeting tonight, what have I done?"...Perhaps needs more development of it and give more regular meetings.' (Karen)

Fifth, Karen questioned an over-complex and over-burdening system of P/TLCs overlapping with whole-school research strands which had developed organically over the years and now needed rationalisation. *'It's being able to do the two. Because the people who are going to drive both are going to be the people who are doing both.'*

Sixth, there was a wide range of ideological commitment among staff. Karen was aware that she was not typical of all staff, but represented a section *"...who are looking to go beyond being an everyday classroom teacher.'* For her, research should involve a significant element of secondary data, *'looking at what's out there in academic research, learning from other places.'* But she recognised that there were a range of views among staff and that for the *'non-academic teacher'* research was seen as an add-on which might have limited impact on their classroom practice in spite of the allocation of directed time: *'Some people feel it's a burden...other people feel the full potential isn't made of it.'* Thus, beneath the presentation of a harmonious, democratic and progressive community, varying degrees of ideological commitment and diversity of goals among staff emerged. While Karen and Naomi were fully subscribed to the P/TLC ethos they acknowledged others were reticent, sceptical or simply wanted to fulfil the minimum work needed to provide their wages. For these staff teacher research presented a threat rather than an opportunity, unproductive time-wasting and additional workload for no perceived gain.

Seventh, she pointed to a tension between the two objectives of teacher engagement and instrumentality for school improvement. The former was supported through PLC theme choices, allocated directed time and joint practice days:

'I suppose the thing about P/TLCs is that we are trying to tap into people having a choice...something that they would engage in....Actually I think the better outcomes are School Improvement related, whole school related...that's given more profile. I don't think P/TLCs are given enough profile. It's "Oh, P/TLCs have come around again. I better make sure..."That's not how it should be.'(Karen)

Choice was also undermined by the delineation of the research menu by SMT rather than from the staff and so this limited ownership; furthermore the culture had so far not become sufficiently embedded to overcome a sense of additionality among some staff. In her opening

comments she directly addressed this ambivalence in relation to student Ali, and at this stage had been clear that *'it's really important that the topic is not just directed by the school but that the trainee has a real interest'*. Although raising the profile of locational knowledge had been a departmental interest, *'the topic came from him'*.

In Karen's view, the SMT needed to show more rather than less commitment to P/TLCs. The expectation that all staff would participate in a P/TLC *'is the right way to do it... The problem is that they are so infrequent because there is not enough room in the meeting cycle'*. The head-teacher, senior management and most staff were committed to the principle of P/TLC culture, but *'it is simply about it becoming a staff priority...it's not a staff priority if it's once a term or every two terms'*. What prevents this was identified as Time (*'...the write up or anything like that, you'd never get it done in school time...it has to wait until...the holiday ...or weekend...'*). If a committed research leader like Karen found this onerous, then less committed colleagues would find it more so. *'People will say "I'll go away and do this" but it gets lost in all the other things we get asked to do'* Related to this were the difficulties of getting colleagues together at the same time in a busy weekly timetable to discuss and collaborate. *'Our PLC sessions are aiming to do that...but I think they need a lot greater organisation...'*

To summarise, the three school case studies present differing portraits of nine individuals interfacing with student teacher research projects. They provide insights into the personal, positional and school-cultural contexts of each individual. The student teacher research knowledge has varying degrees of impact among participants and schools, but in all cases the notion of teacher practitioner-research and school research culture are introduced to participants and their responses are considered. In the next chapter, I will analyse the responses of the participants and their national policy context further to consider how power and conflict act as dynamics in shaping outcomes.

CHAPTER FIVE: DISCUSSION

The knowledge created by the Special Studies took a variety of forms ranging from propositional and pedagogic knowledge products such as Daisy's KS3 review or Ali's locational quiz which could be applied instrumentally, to new epistemological dimensions such as the re-imagining of the use of posters inspired by Colin or integration of pupil views in Daisy's curriculum review. From the narratives in Chapter Four, it will be evident that each case involved complex inter-actions and contrasting interpretations and uses of this knowledge.

One way to make sense of these is to consider how the research was used by participants to further these positional interests within their school and professional communities of practice. In this Chapter, I will apply a micro-political lens (Ball 1987) to participants in their common roles (that is to say as mentors, professional tutors and students) and then to the use of knowledge in each school context. I will move on to theorise by introducing and applying a Bourdieusian analysis to the participants in their school fields. Finally, the chapter will re-frame the case studies within the landscape of national policy and the contemporary debate about teacher professionalism.

5.1 Micro-Political Analysis

5.1.1 The Use of Research Knowledge by Role

For mentors, positional advantage was closely related to advancing departmental interests and practice. In all three schools, mentors and departmental colleagues were able to use the situated pedagogic knowledge created by students' Special Studies instrumentally, for example the locational quiz in Caxton, the strategic review of curriculum in Bentham or the tardis and displays in Aldley. These were resources that would otherwise not have been produced and which therefore had instrumental value for other teachers and the departments. However, the degree of influence varied: in Bentham the Special Study took the status of consultancy in reviewing and reforming curriculum policy, whereas in Caxton a number of resources, for example the locational quiz, were adopted by other teachers. In all the schools, the Special Study also introduced a refreshing degree of epistemological discussion to the departments. Student discussion about sampling, validity and reliability led teachers to re-consider their own objectivity or subjectivity within the classroom as well as more abstract notions of structure versus agency; compared to the usual departmental

discourse surrounding the propositional knowledge of the curriculum, these constituted high order discussions which related to epistemology within their own classrooms and their own lesson planning.

Given Professional tutors' involvements with SMT, their positional interests operated at a more strategic level and involved the scrutiny and overview of classroom practice, teacher education and school improvement. They all commented on how student presence enhanced the reflectivity and performance of experienced teachers like mentors who might be shadowed and observed by the student. Being observed created the need to plan more carefully and to be able to explain this planning; to make explicit the tacit knowledge that they had internalised over the years. The presence of student teachers enhanced the reflection in, on and about action of experienced teachers. Professional Tutor Brian saw this as a useful means of exerting quality control and contributing to the achievement of performance management. Student teachers provided rejuvenation with benefits for overall school performance. This was marked in Aldley, where other teachers reviewed and renewed their own use of displays following Colin's example and ensuing discussion. Here the Special Study *process* had an impact on the practice of others. This was less marked in Bentham where the Study was more definitively outcome-based though it could be argued that the subsequent re-design of the key stage 3 curriculum and related discussions would represent a process of renewal. However, student Daisy's interest in Pupil Voice and teacher empowerment, which underpinned her Special Study, renewed the idealism of colleagues who had abandoned their own in the face of high workload expectations. In other words, Daisy provided a vicarious opportunity for renewed idealism in reviewing the curriculum, a memory of the importance of pupil enjoyment and democratic educational values in a school which had come to rate results and performance management more highly. In Caxton, the highly developed P/TLC structure obviated this function for student research and this may be an alternative explanation for Naomi's lack of interest in Ali's project.

Meanwhile, students who occupied the lowest status amongst school staff as newcomers and temporary residents, used the Special Study to graduate from their PGCE; but also as a means of establishing their participation and status within their departments. In all cases, the Study also developed their confidence to claim expertise in the substantive topic which became an

investment to further their opportunities at job interviews. Within the community of practice the student teachers might be seen as legitimate peripheral participants. Yet the Special Study provided them with a new positioning within the department. Instead of being the subject of scrutiny by experienced colleagues in the classroom, the Special Study allowed the students to place the object of their study under the spotlight in a collaborative and equal relationship with experienced colleagues. The students' more recent knowledge of research methodology through their involvement at the University and their Special Study subject placed them in the position of expert while the experienced colleagues assumed a lesser authority. Through the Special Study, the students were able to model how teacher-led research-based initiatives might lead to changes in practice and be used as a basis for changing school policy.

While this role reversal of the teacher and learner was notable in Aldley and Bentham it did not materialise in Caxton. As traditionally hierarchical organisations, Aldley and Bentham revered University-related activity including research, which was imagined as the technical professional model. Thus while student teachers were accredited low classroom status, they benefited from the legitimacy of University association when it came to the Special Study. In contrast, by a curious inversion in Caxton, student Ali's position was consistently closer to that of legitimate peripheral participation. This is ironic since Caxton's democratic values and policies might be expected to offer student teachers greater equality. However, his Study had the lowest level of impact because he was working in the school with the highest level of expectations and a model of teacher professionalism which he struggled to live up to. These observations seem to suggest that students had the greatest research impact where it was most lacking from school culture.

5.1.2 The Use of Research Knowledge in School Context

In Aldley, mentor Vicky and Professional tutor Wendy perceived student Colin and his Special Study as allies on their respective sides of a pre-existing conflict between a department that felt marginalised and under-valued and the school which sought to raise standards in what it perceived to be an under-performing department. For Vicky, Colin's research offered a strategy for raising the profile and popularity of Geography. For Wendy it offered a form of rejuvenation for the staff. Neither Vicky nor Wendy emerged from this situation with clear advantage. While the display work did demonstrate good practice and did raise the popularity

of and engagement in Geography lessons, it did not disseminate sustainably to other staff. Vicky continued to feel blocked by practical circumstances; and being so close to the end of her career had little motivation to change her classroom practice. The display initiative therefore petered out with Colin's departure. It is a shame that Colin's exciting work did not contribute to a longer term pedagogic development. Had it been conducted within an ongoing community of research practice rather than as an individualised research project seen simply as part of his PGCE, it may have been used more broadly and with longer lasting effect across the school. Meanwhile, Colin was aware that the research gave him a new elevated position of expert knowledge: other teachers were either inspired by his display work or eager to show him their own use of displays; in job interviews he found himself scrutinising the use of displays in schools and asking the interview panel about display policy.

Bentham was a tightly controlled and pressurised environment where workload and performance management expectations led to tension between SMT and staff. But unlike Aldley the success of the Geography department was not contested by the school. Here, mentor Hugh used student Daisy's research as a direct instrument to advance his own position by doing the groundwork for a review of the KS3 curriculum which was his responsibility and which he admitted he would otherwise have had to do himself during the summer term. Daisy's Special Study did this for him. He was understandably delighted by the greatest popularity rating given by pupils to the unit of work that he had designed himself and this finding will have undoubtedly advanced his position within the department. It was clear that research was seen as providing legitimacy and currency to any resulting changes. In a top-down school like Bentham research-based evidence provided a source of power to staff and middle management who used it. While this Special Study was very influential in terms of concrete outcomes, the knowledge created was the least experimental or creative of the three. This did not worry Daisy who was motivated by the opportunity to participate in a curriculum-making activity and to give a platform to pupil voice. She was also aware of the power that the research placed in her hands within the department and as an investment for a future post. Her experience, maturity and cultural capital gave her an understanding of how a 'can do' attitude builds social and cultural capital bringing her long-term advantage in the job market. Professional Tutor Brian was happy to know that the study would lead to departmental and curriculum development. It also of course created a mechanism for scrutiny of the department from the pupil perspective: what units of work and teaching and learning strategies the pupils liked or disliked. Brian may have been less pleased had the study been less instrumentally

advantageous for the school. As close to retirement he was no longer motivated by career ambition, but spoke pragmatically about advantage for the school interest and in particular the capacity of the Special Study to test the resilience of prospective teachers for employment.

In Caxton, student Ali's work was little use to mentor Karen or colleagues and did nothing to support her position. If anything it had the opposite effect, opening to question her mentoring efficacy and ability to further the research mission. Although the topic had been agreed to support a departmental curriculum development initiative, it never managed to contribute significantly to this other than by the design and production of some classroom resources. Mentor Karen was disappointed that Ali did not respond to her advice and had been rather slow and disorganised in progressing the project. Karen was highly committed to the Caxton research vision, had moved into a partial position of leadership in this and was disappointed that Ali failed to prove an ally in this project or to develop a commitment to this dimension of his own teacher professionalism. Professional Tutor Naomi remained detached from the Special Study throughout and made no direct use of it. Given how over-stretched we have seen her to be, it is understandable that she did not become further involved. Yet this was a missed opportunity since she might have furthered the interests of Caxton's P/TLCs –and indirectly her own- by using Ali's Special Study as a means for drawing on the University to support their classroom research. Meanwhile, Ali had an unrealistic idea of the quality and importance of his work and its contribution to the department. While there was no doubt of the significance of the national debate about locational knowledge in Geography he repeatedly avoided the advice given that he needed to deconstruct and explore what this meant, instead remaining entrenched in a superficial interpretation of the concept. His choice of topic was opportune, providing him with an advantageous subject specialism at a time of national debate about locational knowledge. He may have thought this would enhance his cultural capital at Caxton and enhance his employability after graduation. However, his failure to meet Karen's expectations can be read as a failure to read the school and departmental culture accurately, to learn the 'rules of the game' in a research committed department: although Ali was not overtly dissident, he was reluctant to respond to mentor advice, and did not progress from an understanding of the Special Study as a University requirement. He wanted to get it out of the way so he could focus on the real business of classroom teaching.

5.2 The School Context as a Contested 'Field'

This micro-political analysis has highlighted the sectoral interests of mentors, Professional Tutors and students and how the participants may have been affected by struggles for positional interest within their individual school case studies. While these case studies are rich in individual detail, we can make better sense of them by applying a Bourdieusian lens. Pierre Bourdieu theorised about the inter-relation between people and society, contributing to the sociological debate about the relative influence of 'agency' and 'structure'. For Bourdieu, sedimented experiences and present influences from their 'field' come together to form what he calls 'habitus', the representation and identity of agents within that field, habitus in turn can influence the nature of that field. In 'The Logic of Practice' (1990), he attempted to draw together an objectivist, structural approach and an interpretive view to move beyond the polarity of approach which he regarded as a stumbling block for sociology.

Bourdieu's field can be thought of as 'the field of play' in a game; the environment within which agents conduct their work and develop habitus. It is a complex construct, shaped by external and internal forces. For example, schools are shaped by external statutory frameworks or league tables which dictate or scrutinise from the outside, while internal influences include struggles based on career ambition of agents, contrasting values within the leadership team or the influence of a strong trade union group.

Webb et al. define field as 'a series of institutions, rules, rituals, conventions, categories, designations, appointments and titles which constitute an objective hierarchy, and which produce and authorise certain discourses and activities' (Webb et al., 2002 p.21). It is a site of struggle, fluid and dynamic, 'always being changed by internal practices and politics, and by their convergence with other fields' (ibid. p.28). So a new head-teacher or head of department, the introduction of P/TLCs, a decision to host PGCE students or even a student's Special Study could change the field. At an individual scale, an agent's ability to influence the field will depend on the extent of their 'cultural capital'.

For Bourdieu, social structures are not only shaped by economic power but also by dominant culture and taste. He used the terms 'cultural' and 'symbolic capital' to describe the advantage

agents hold through familiarity with and playing position within 'the game' (Bourdieu, 1990 p,66). However, for cultural or symbolic capital to have influence it must be a recognised currency in the field and this can lead to power inversions. A head of department may exercise power and influence within the field of a department, enjoying the symbolic capital of position and cultural capital based on extensive professional experience and knowledge, while a student teacher would have the least of any form of capital. Meanwhile, that head of department might lose the advantage of cultural capital in the University field while the student teacher may gain through greater familiarity with up-to-date knowledge of developments in Geography, government policy changes or research methodology. Cultural capital is relativistic, that is it will be constituted differently in different cultures and even for different agents within the same field. For example, the experience of expert teachers constitutes one aspect of cultural capital which is highly regarded by the student teacher, while the research skills of the student may constitute an aspect of cultural capital in the eyes of the head-teacher. Agents can enhance and develop their cultural capital through their work in the field, thereby enhancing their opportunity to influence it, for example by gaining promotion. It should also be said that valued cultural capital can change within the same field. For example, the ubiquitous use of PowerPoint has moved in and out of fashion among educationalists.

Cultural capital constitutes an aspect of an agent's habitus. Webb et al. explain habitus as:

'The values and dispositions gained from our cultural history that generally stay with us across contexts. These values and dispositions allow us to respond to cultural rules and contexts in a variety of ways (because they allow for improvisations), but the responses are always largely determined –regulated by where and who we have been in a culture.'

(Webb et al., 2002 p.36-7)

Bourdieu explains habitus in his own words as:

'Systems of durable, transposable dispositions, structured structures predisposed to function as structuring structures, that is as principles that organise practices and representations that can be objectively adapted to their outcomes without presupposing a conscious aiming at ends or an express mastery of the operations necessary in order to attain them...habitus, a product of history, produces individual and collective practices –more history- in accordance with the schemes generated by history.' (Bourdieu 1990 p.53-4)

In a school context, habitus can be seen as the means through which values and forms of behaviour are passed on to and reproduced within the child from early experiences within the family or school. (Webb et al., 2002)

A student teacher could be seen as internalising and embodying values and practices from a first professional practice before moving on to a second school. Everything they know about teaching is built upon their first practice experience. But the student's habitus continues to develop as experiences and culture are accumulated in the second school. Bourdieu believes that as individuals internalise and embody their field they become the individualised representation of it. Over time, new layers of culture and experience are painted onto the old which lie submerged; just as with archaeological relics, they may surface or be dug up from time to time given the right circumstantial triggers. As Webb et al. write:

‘Habitus is both durable, and oriented towards the practical: dispositions, knowledge and values are always potentially subject to modification, rather than being passively consumed and re-inscribed. This occurs when the narratives, values and explanations of a habitus no longer make sense...while the habitus is subject to modification and even change, such a process is usually gradual.’ (Webb et al., 2002 p.41-2)

Bourdieu was not a structural determinist and he suggested that habitus can in turn influence the field given a sufficient degree of symbolic and cultural capital. He saw the desire to accumulate capital and enhance the power of habitus as the primary motive for the actions of agents. The ability to succeed depends on one's level of cultural capital, ambition and perception of position in the game (Webb et al., 2002 p23). Field and habitus are bound in a symbiotic relationship whereby a change in one will lead to change in the other.

Turning to schools, we can see them as individual fields with departmental sub-fields. Each school field was affected by its espoused values, mission statements, policies, management structures and micro-politics as previously discussed. A full analysis of each field is beyond the scope of this thesis but important differences in how they valued and related to student teacher research and communities of practice are evident.

Bentham's field valued it the least. Here, the expectation was that teachers should teach while research should be conducted by professional researchers who should then impart their knowledge to steer school policy. Cultural capital was aligned to these clearly delineated roles.

The school SMT successfully controlled definition of the community of practice without mediation or negotiation with the staff forum. Caxton contrasted sharply to this. The policies and structures of this field explicitly espoused staff involvement in research communities, seeming to reflect deeper democratic community-orientated values. Staff were invited to participate in a common school mission of advancing the learning and well-being of the pupils and all others within its community. Loyalty to the school was mediated through loyalty to the mission and membership of communities of practice including the P/TLCs. Research activity was seen as everyone's responsibility, an important contribution to this mission and a representation of loyalty; a source of cultural capital. Aldley's field represented a mid position where there was no provision for, or commitment to, teacher research but a nascent interest in the possibilities 'if only there was time'. Research activity therefore offered potential cultural capital but this was yet to be sought after by teachers. In Aldley the departmental sub-field was contested with conflict relating to how construction, positioning and valuing of subject knowledge could best advance the achievement of pupils and with implications for the professional identity of teachers. Loyalty to the school was interpreted through alignment in this sub-field conflict and research accrued capital currency as it became recognised as a tool that both sides of the conflict could appropriate.

Within each school field, agents used student research to advance their respective positions and acquire further cultural capital although each case represented a unique configuration. In Bentham the only imaginable circumstances for teacher engagement with research would be if an individual pursued a Masters course and cultural capital would be attached to the qualification itself rather than its related research skills. Daisy's Special Study represented a practical opportunity for the department to fulfil a current need through research. Mentor Hugh did what he could to support Daisy's research because it helped him fulfil his responsibilities and would directly advance his own symbolic and cultural capital as a good curriculum leader. As a Professional Tutor and responsible for ITE and CPD within the school, Brian's symbolic capital was enhanced by the success of student assignments and this was a particular gain if these made a functional contribution to the wider improvement of teaching. Brian made repeated reference to a unit of work designed by a previous student teacher on placement which he had subsequently used many times himself thereby directly enhancing his own cultural capital. As regards Daisy, he was happy to watch her study service the Geography department but saw no personal gain as it was in another department, especially since classroom research was of such low currency in the school. Furthermore, as he neared the end of his career he was no longer ambitious. Daisy was able to advance her position and gain

cultural capital in different currencies. Within the school she fulfilled Hugh's need for the curriculum review, made a pragmatic and instrumental contribution to her department and her findings were acted upon. Meanwhile, she enhanced her cultural capital within the University field by using the Special Study to further her role as a curriculum-maker and proponent of pupil voice, areas which interested her but she also knew to be fashionable within the University department of education if not so much in school. Thus, Daisy's research added new layers experience to her habitus. However, for Hugh and Brian it served a purpose without affecting their habitus or changing the field.

In Caxton, the pro-research culture offered Ali a generous opening hand. But he did not learn the field's 'rules of the game' and so missed the opportunity to develop cultural capital from his Special Study in this research-supportive environment. Rather than adapting and developing in his second placement, he remained rooted in his identity as a student teacher, in his original conceptualisation of locational knowledge and in seeing his Special Study as little more than a requirement of his PGCE. He never quite connected with the school's research culture and remained aloof from the supervisory dialogue with Karen which might have drawn his research process more closely into the wider mission. He and his research remained peripheral in the school which was the most committed to democratic participation. Karen's research commitments attributed her with considerable cultural capital and supervision of Ali had the potential to enhance this. But her high expectations and on-going involvement in other teacher research projects meant that Ali's research never quite succeeded in contributing to her or the departmental position. Her interest declined as the potential for gain decreased. Naomi's position was similar to Brian's in Bentham except that she remained ambitious to advance her position. As Professional Tutor with responsibility for ITE and P/TLCs, she stood to gain from Ali's success and spoke enthusiastically about student research in her own department which she saw as instrumentally useful. But she maintained her distance from Ali's project which 'belonged' to Karen. She could accrue cultural capital simply by virtue of her strategic position without having to provide supervision. Ali's work was of little consequence to his, Karen's or Naomi's habitus and had no impact on the field.

It was in Aldley that student Colin's research seemed to have the greatest impact related in part to its contested field. Like Bentham it was a traditional hierarchical school which lacked a research culture. But the conflict between SMT and department had brought contestation to the surface and led both Professional Tutor Wendy and mentor Vicky to view the Special Study

as a means to advance their quite different interests. This helped to endow the Special Study with greater status to Colin's benefit. Thus, it seems it was the conflict rather than school policy or attitudes towards research per se which was significant in elevating Colin's study and enhancing his cultural capital. This developed his confidence in job interviews as well as for the remainder of the professional practice. Vicky used Colin's work to advance her position in two ways. First, it helped to increase her symbolic capital by raising the visible profile of Geography in the school and re-establishing a claim to identifiable space which had been lost during the departmental restructuring. This would also increase her cultural capital by re-affirming recognition of the value of the subject specialism and herself as a subject specialist. Second, she raised her personal status by establishing a privileged claim to the Special Study through her childhood interest in educational research. In order to advance her interests, Wendy had to make her mark on the re-organised faculty and on her new role as Professional Tutor responsible for ITE and CPD. She came to see that she could increase her own cultural capital through Colin's work. She benefited from the implication that there were pre-existing weaknesses in Geography that his research was addressing. By supporting it and showing an interest she could take credit for the positive impacts while also appropriating some of his ideas such as the tardis for her own classroom. As the person newly responsible for CPD, the notions of teacher research and P/TLCs were new to her, but offered the possibility of making an innovative mark on the school culture. She seemed increasingly interested in gambling on this to enhance her own position. Thus, the habitus of participants in Aldley seem to have been more affected than in other schools and consequently Colin's research had the greatest impact on the field.

5.3 The Place of Research Knowledge in a Contested National Field

These school fields sat within a national educational field, shaped by national policies and pressures. As described in Chapter One, this thesis was written at a time of significant political and ideological turbulence, 2010-14, characterised by de-regulatory national policies which encouraged competition among schools and the proliferation of Free Schools, Academies and Teaching Schools (Miller 2011, Ball.2012, 2014). Meanwhile, schools can be seen as exerting their own internal influence on the national field as they jockeyed for positional advantage, seeking to accumulate cultural capital from all available recognised currencies. The goal for schools is to be 'outstanding' or distinctive, to stand out from the crowd. For most schools this has been sought through the currency of pupil attainment, but for some it has been sought

through establishing a distinctive ethos. Opportunities to establish distinctiveness have been opened up by conflict or contradiction within government policies themselves and where schools have been able to exploit these they have been able in turn to influence the field.

One such contradiction opened up between the conceptualisation of teacher professionalism as a 'craft' following the publication of the 'The Importance of Teaching' (DfE 2010) and the Teaching School agenda. On one hand, the prevailing government discourse about teacher professionalism and teacher education came to privilege the 'craft' conception of teaching (Whitehead 2011). As discussed in Chapter One this model expects teachers to teach, student teachers to look and learn but neither to engage in research or create knowledge; this is the role of professional researchers and there is therefore no place for research in an ITE programme. Indeed many ITE providers like Sussex that previously included student research in their programmes abandoned it during this period. In this climate it is not surprising that my participant PGCE students themselves initially saw the research project as an irrelevant academic hurdle. Meanwhile, the NCTL's Teaching Schools initiative created a network of 'outstanding' and 'self-improving' (Hargreaves, 2010) schools as models of excellence and leadership identifying research as one of their 'big six' core activities. Other powerful organisations contributed to this counter-current in what should be seen as a contestation of the meaning of teacher professionalism. At the time of writing, a lobby of influential educationalists and organisations is growing for the creation of a Royal College of Teaching to regulate and define teacher professionalism and a comprehensive inquiry into the place of research in teacher education has just been published (BERA-RSA, 2014). This has offered firm evidence of the beneficial impact of research engagement and a model of teacher professionalism which creates synergy between theoretical, technical and practical knowledge. A cleft has developed between the notion of teaching as a 'craft' and the model of teaching excellence portrayed by Teaching Schools which incorporates a research dimension. This cleft has created a niche into which some schools have moved to further their position as 'outstanding' and distinctive within the crowded national field.

The three case study schools sat within this contested national field and my findings have implications for the debate about the model of teacher professionalism and the type of training appropriate to enable it. The diversity of participant views reflected the range of the

positions found in these policy debates, from 'craft'-oriented Bentham to research committed Caxton. But my findings also showed how these views could change through participation in research, both the student teachers' and my own. For example, mentors Hugh and Vicky expressed a view frequently heard among teachers that it is students rather than qualified teachers who have time to do research; that research is something done during ITE if at all and then left behind once qualified. However, my interviews show how the participants warmed to the notion of research as an aspect of teacher professionalism, representing an alternative currency which they could use to further their own positional advantage. The very process of research engagement triggered reflection and dynamism among participants, both researchers and the researched, opening space for change which could contribute to school improvement. Through a Bourdieusian lens then, my interviews helped to unsettle the habitus of participants who, mindful of contradictory national government policies, considered re-positioning themselves within the local field. Although none of them would commit to change without first seeing firm change in the field, the fact of their re-consideration helped to de-stabilise the field and make change more likely.

Similarly, in some instances the student research created *congruent knowledge* (Timperley, 2007), complementary to and consistent with existing practice, for example, the effectiveness of Ali's locational worksheets. But in other instances it was more unsettling, creating the *dissonance* between new insights gained and routinised behaviour or thought that is needed to allow deep learning (Timperley, 2007), akin to Piaget's notion of 'perturbation' (Muller, Carpendale and Smith, 2009). For example, some of Daisy's pupil views about which modules they should study completely surprised teachers who assumed pupils would enjoy what teachers thought they should enjoy.

The ability of dissonance to create deep learning and the power of micro-political conflict to contribute to institutional change (Ball, 1987) suggest that school improvement may require disruption (Watson, 2014); meanwhile teachers experiencing change-fatigue crave stability. P/TLCs may be introduced as a means of achieving these contradictory objectives though the critique of Caxton illustrates that this may not be straightforward. Even though teacher research was part of school policy and provided for within the meeting cycle INSET programme, different levels of staff ideological commitment, diversity of goals and different

concepts of teacher professionalism remained within the community of practice depending on how agents perceived its usefulness to their positional advantage. Furthermore, although Karen and Naomi both recognised the importance of staff ownership and engagement in P/TLCs and hoped that this would be achieved through offering all staff a choice of P/TLC topic, they also recognised that the menu was defined by SMT based on school improvement priorities rather than emerging from staff discussion. Under such circumstances, it should not be surprising that P/TLCs or the expectation of teachers to be researchers might be met with resistance, scepticism or even hostility if it is seen to represent an increased workload or worsening of working conditions and offers no positional advantage.

A head-teacher who wants to develop teacher researcher culture has to persuade staff that it will benefit them and consider how quickly to approach this, bearing in mind the more rapid a change, the more resistance it will encounter. There is evidence to suggest that where it has been successful this has been through a slow, uneven and sometimes tortuous process (McLaughlin et al., 2006; Ebbutt, 2006) with the single most significant ingredient to success being the commitment of the head-teacher and senior leadership, for it is only with this that the resources needed for success can be guaranteed. This is illustrated at the time of writing by the commitment of eight partnership head-teachers who have each agreed to pay £11,000 to enrol two teachers per school on a new MA in Education designed to build the research capacity of their schools. In an increasingly de-regulated educational field, these head-teachers can be seen as investing or gambling on an up and coming currency which they estimate will contribute to developing their school and individual status. These individual pioneering decisions create internal changes to the national field and thereby make it more likely that others may follow. However, as long as they remain isolated pockets, change to the field is likely to be limited.

External national bodies are more likely to enable a widespread adaptation towards teacher research. For example, a Royal College for Teaching could make a crucial contribution to this by defining practitioner research as an intrinsic aspect of teacher professionalism. Future reviews of the Teachers' Standards by the NCTL could re-iterate this as part of their guidance. OFSTED inspection of ITE in England could include scrutiny of research training for students as it currently does in Wales (BERA-RSA, 2014). Universities represent another external body in

the national field but they also have a distinct presence at a local scale. Where they work in research partnership with schools they play a crucial role by providing expert knowledge and expertise, but also by maintaining a degree of outside-ness, an ability to analyse the situation unfettered by the implications of positionality within the school. Their warrant depends on this (Ebbutt, 2006, McLaughlin 2006) . As regards ITE, Universities contribute to the symbolic construction of teacher professionalism by whether they include or exclude research projects in their programmes. At a local level University ITE Curriculum Tutors, who work in schools and are responsible for the subject specific development of student teachers, are particularly well placed to mediate between the school and the national field as well as University. They invariably come from previous classroom careers and therefore enjoy greater credibility than other University staff in the eyes of practising teachers. However, much as they may like to think of themselves as school insiders, they remain firmly outside the school for all but a few days of the year. Curriculum Tutors have to endure a paradoxical identity crisis: on one hand they yearn for membership of their past teaching community but on the other they come to recognise that it is their very outsider status and University association which now provides them the power, the symbolic and cultural capital, to legitimate the practice of others including research.

Curriculum Tutors are powerful agents of cultural change in the local and regional field. As trainers of student teachers both past and present, many of whom have gone on to lead the departments where current students are placed, they have significant influence on aspirational models of teacher professionalism. They provide practical support regarding resources, curriculum development, access to campus and enjoy influence within school departments. As regards research, the Special Study created a pretext for collaboration between teachers and Curriculum Tutors and broadened the depth of dialogue from perfunctory lesson observations based on notions of 'craft', to considerations of epistemology, pedagogic content knowledge and government policy, topics that were not part of the usual staffroom discourse in Aldley or Bentham. Let us further consider the power of the Curriculum Tutor through the example of my own research relationship with my participants. They may have only agreed to be interviewed because of the legitimacy conferred by my University position. This in turn allowed me to inform them about and legitimate a teacher research model. All were initially sceptical but by the end of my fieldwork Wendy, Brian, Karen and Hugh had moved to supportive position. Once committed to my research, the interviews created cognitive dissonance, unsettling their pre-conceptions and stimulating reflection (Lather, 1986). As for

the students, all three commented that my research interest in their Special Study added a level of significance and commitment to their own research efforts and my interviews sharpened the critical evaluation of their own research projects. Daisy commented that the process closely paralleled the co-enquiry that I had been encouraging them to adopt with their pupils in their classrooms. It was paradoxical that the participants' respect for University status in the hierarchy of knowledge was the very thing that enabled them to develop belief in the teacher as researcher and the notion of insider knowledge creation, constructs which directly challenged the hegemony of the outsider-professional.

As we have seen, the student teachers themselves occupied a unique position, half in and half outside membership of both school and University. This provided the benefits of both proximity and distance. From University membership they acquired propositional and methodological knowledge. In school they acquire local knowledge, for example about people, pupils, curriculum, policy and micro-politics of the field beyond the reach of the University tutor. The research of student teachers therefore represented a hybrid formulation, neither completely insider-practitioner nor outsider-professional.

To summarise, this chapter has discussed how student teacher research knowledge was used by participants to further their micro-political personal or sectoral interests. In each school, the participants interacted with school cultural attitudes towards research through the medium of the Special Study. This was related to the interplay between the habitus and field of participants and their school; and it was suggested that successful players could influence the nature of this field. Zooming out, the schools were re-considered as interfacing with and seeking positional advantage within the national educational policy field. A number of other factors were considered for their potential to contribute to the development of school research culture, including the difficult dynamics of dissonance, disruption and conflict as well as external partnership with Universities. In all these cases, student teachers had a visible potential to mediate and contribute through their hybrid insider-outsider status. In the next chapter, I will return to address the research questions and offer conclusions.

CHAPTER 6: CONCLUSIONS

In this chapter I return to my research questions and address them in turn. I review the limitations of the study and suggest some possible further avenues for research arising from my findings.

6.1 How is the knowledge created by student teacher research used?

We have seen that the knowledge created by the student teachers' research was used for direct practical or instrumental applications within the geography departments, although differences between them reflect different epistemologies: Colin's project re-shaped his own and others' attitudes and practice to the use of displays, promoting a constructivist view of professional knowledge and the process of learning in the micro context. Daisy's project produced the necessary evidence to inform her department's curriculum review of propositional knowledge. It was also implicitly constructivist at the meso-structural level of departmental planning rather than the micro-level of Colin's classroom action. Her proposed KS3 geography curriculum constituted new propositional knowledge while at the same time having been democratically constructed through pupil and teacher voice. Ali's project produced classroom resources and re-aligned some assessment frameworks which his department found useful, but represented a re-formulation of its existing pedagogic content knowledge rather than a new dimension.

In all three cases, the student teachers represented a unique research resource. Experienced teachers repeatedly commented on the students' availability of time, the lack of which was seen as a major constraint on their own activity. At a more meaningful level, the students' hybrid semi-insider semi-outsider position represented a bridge between membership of school and University knowledge community. Their research knowledge is unique and adds a new dimension to Gibbons et al.'s (1994) typology by virtue of this hybrid status. Gibbons et al. frame both their mode 1 and 2 knowledge in the context of established communities of practice, whether that community has a bounded conception of propositional and technical knowledge as in school one or a trans-disciplinary view as in school two (Fig. 6.1). But students are transitory and semi-members of the community and its professional knowledge. The knowledge that they create is trans-boundary as well as trans-disciplinary in that it moves not only between practical local insider and University theoretical outsider knowledge, but also

between locales by virtue of its University-based theorisation, warrant and the students' semi-outsider distance (Fig. 6.2). This is evocative of Michael Young's (2012) 'realist' knowledge, where knowledge production is neither purely constructivist nor entirely dictated by the powerful, but instead coalesces around dialogue between schools, Universities, subject associations and other interest groups.

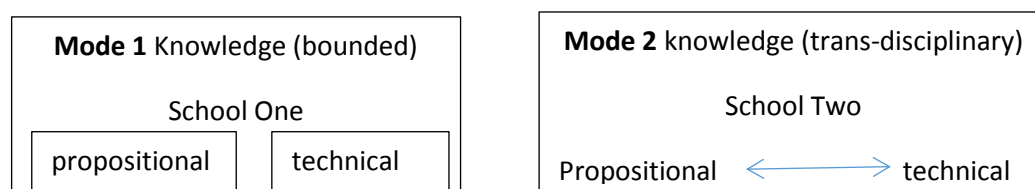


Figure 6.1: Gibbons et al. typology of mode 1(bounded) and mode 2 (trans-disciplinary) knowledge

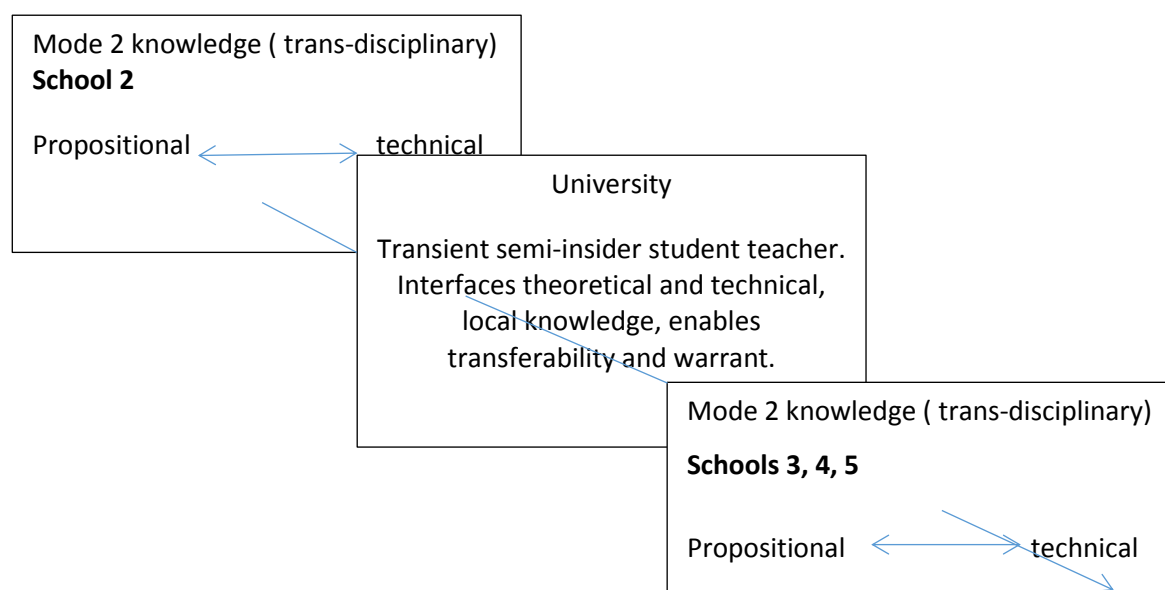


Figure 6.2: Gibbons et al. typology developed to show the trans-boundary influence of student teachers

The students' limited and transitory membership of the school community made their research a low stakes exercise for the school, working at the margins of established school knowledge and practice. Their transience allowed the students themselves to feel secure in being exploratory thereby having greater potential to create new rather than simply re-formulate old knowledge. It allowed them to voice observations which might be difficult for

full members to articulate and allowed the schools to use or ignore findings according to their perceived usefulness. Their position as semi-insiders, meant their research was allowed a critical quality which may not have emerged from full community members who were not endowed with the objective distance to see and for whom outspoken criticism of school practices might risk their position within the school. Daisy's ability to name unpopular teaching modules in Bentham or Colin's ability to unsettle orthodox attitudes to displays in Aldley would have been difficult or unlikely to emerge from a full insider and were dependent on their semi-outsider positions.

The students' ability to share their research and findings with a community of other geography students outside the researched school was invaluable for reflection and refinement not available to insiders. At the same time, in order to make sense of each other's' presentations this peer community had to imagine each research project in the context of their own school experience and in so doing provided a check on the generalisability not available within each school community audience. Ashwin et al.'s (2004) three-stage categorisation of practitioner-research based on audience suggests a gradient of scrutiny and associated demand for methodological rigour. At level 1, the practitioner him/herself is the principle audience, at level 2 the school or departmental community share the findings and at level 3 research is published for public consumption with the highest demand for transferability or generalisability. As regards the Special Study, there was no intention of publication (level 3). Its knowledge was intended for the students themselves and constituted a graduation requirement (level 1), to be shared with the departmental community audience (level 2) as a contribution to the school. But the additional audience of the student peer community added a new dimension of scrutiny, neither fully in nor fully outside the community of practice and again evocative of Young's 'realist' coalescence of knowledge. This leads me to propose a new level 2b for Ashwin et al. (2004) to add to their categorisation of research: where the audience is neither fully public nor private but an outsider peer community, able to probe usefulness and transferability to their own experience in other schools.

We have also seen that the students' research was used by each participant to advance their own sectoral (student, mentor, professional tutor) interests and their individual field positions. At a *sectoral* level, the students used it pragmatically to support their entry to membership of

their practice school through a reversal of their peripheral apprentice status to that of being a research authority in the local context, as well as to graduate and to advance their long-term career position within the national community of teachers. Professional Tutors used it to further whole-school priorities, whether departmental re-structuring and improvement, performance management or advancement of school research culture. Mentors used it to support their immediate classroom agendas. At the *individual* level, participants used it to advance their individual positions within their field. In Bentham, Hugh used the project to fulfil his curriculum review responsibility while Brian's impending retirement and process of disinvestment softened his need for positional advancement. In Caxton, Lucy hoped to use it to advance her positional interest as a research leader while Naomi's lack of involvement reflected her perception that Ali's study was not something that supported her individual position. In Aldley, Vicky and Wendy each used the display project to support their respective positions in the conflict over departmental identity. As for the students, Colin and Daisy recognised that their research would make a significant contribution to their entry and acceptance to the community of practice and enhance their status within it. Colin quickly recognised the interest that others had in his study and the capital that this interest gave it. Similarly, Daisy understood how valuable her work was for Hugh's personal interest and relished the expert status that it gave her within her department. Meanwhile Ali had difficulties forming attachment to the placement, remained outside the school's research culture and perceived his positional interest as completing the course requirements and successfully graduating. This informed his conduct through the project.

As a University geography tutor, partnership co-ordinator and doctoral researcher, I used their research projects to encourage interest among participants in the value of teachers being researchers and to develop partnership links between schools and the University with the objective of increasing teachers' research engagement. Three years later and with the benefit of hindsight I can see that my enquiry had tangible impacts on individual participants and in some cases on their school culture; to give more detail would risk betraying anonymity. As previously discussed, my enquiry has embodied the impact of agency. By asking questions within the legitimate space of enquiry, I opened up discussion about practitioner-research, a notion either never heard of or previously dismissed by most as an unrealistic.

I also recognise that the enquiry advanced my own field position within ITE and as an early researcher within the University. While my study focused on the role of student teachers as an

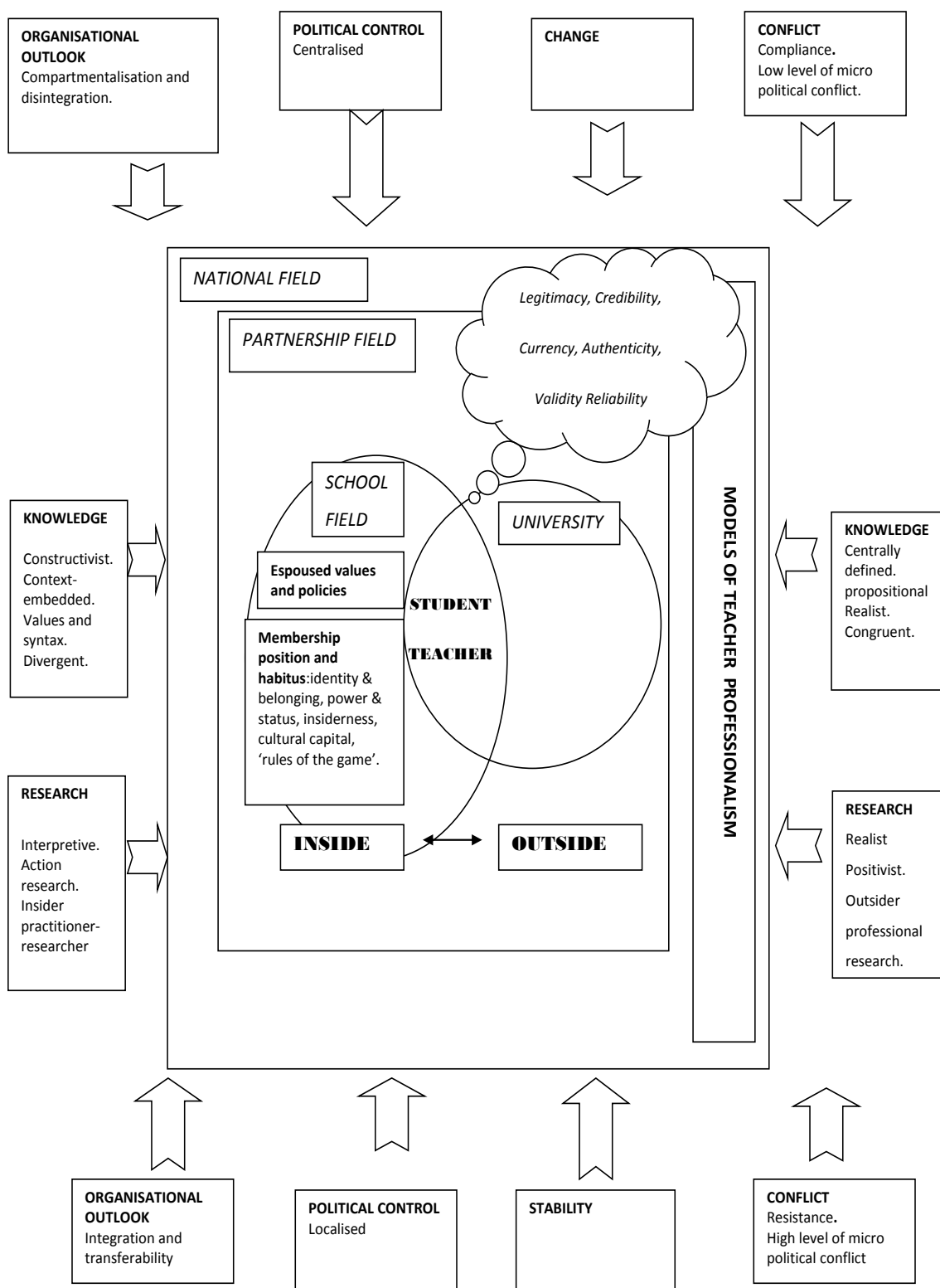
interface in school-University partnerships, by strengthening partnerships it also strengthened my own position as school partnership leader. Interview engagement with participants provided me with a new and deeper level of engagement with these schools which privileged me: colleagues in these schools came to know me now as a researcher with perceived higher status rather than only an ITE colleague; meanwhile University colleagues knew that I was engaging in a research relationship with some unidentified schools and this bolstered their view of my privileged understanding of partnership schools which went beyond their own superficial knowledge based on ITE.

The enquiry which has led me towards this doctorate has been a developmental journey. My views about and understanding of ITE have significantly changed as a result of my own critical engagement with literature and re-evaluation of professional practice. For example, from thinking of student teacher impact in terms of the production of useful resources to the deeper implicit role of nurturing and furthering research culture in departments. My understanding of ontology and epistemology has matured considerably over the months and lapses between months of engaging with the data and I now find myself unwilling to commit with certainty to any fixed position as a researcher. I understand and appreciate the strengths and shortcomings of realist and naturalist approaches to enquiry. Whereas 'mixed methods' may now be a popular approach to research for the benefits of integrating quantitative and qualitative methods, it would be interesting to explore the idea of 'mixed methodology' wherein positivist and interpretive epistemologies might co-exist and interplay within an enquiry; just as Pierre Bourdieu attempted to reconcile structure and agency within a common theory of habitus-field.

6.2 How are the outcomes affected by individual contextual circumstances?

The different outcomes of the three case studies to some extent result from individual differences of personality, research topic and school context. But this thesis theorises that each case study was affected by the culture and micro-politics of the school, its interface with partnership and national contexts, and its positional response to a number of binary dynamics or dimensions previously discussed in Chapters Two and Five which affect the entire field framework. Differences in the outcomes from the three schools can be seen as a product of differences in the constitution of the field and the balance of these binaries. I have tried to systematise this complex interplay in Figure 6.3.

Figure 6.3: Binary forces influencing the school field



The constitution of the field can be thought of as a series of overlapping and nested fields. At the centre are school departments within schools. The student teacher and his/her research sit at the intersection of these and University field, legitimate peripheral participant in and a

bridge between both. These sit within the regional partnership and national contexts beyond. Both school and University fields are communities of practice with their respective espoused values and policies including attitudes to research. Within the school community individual membership and field position are affected by factors discussed in Chapters Two and Five. These include: the extent to which members feel and are perceived by others as insiders, ideological alignment and commitment to the school's espoused positions, status and power, cultural capital and fluency with the 'rules of the game' both institutional and counter-cultural. These all form part of the dynamic relationship between the habitus of each participant and their field, and the complex interplay between them influenced the configuration of each case study. Surrounding all schools, the national field and ongoing national discourse affect local values and policies regarding the organisation of education, teacher professionalism and ITE.

These nested and intersecting fields are subject to a number of external and internal influences which were also discussed in Chapters Two and Five. These can be thought of as a number of binaries, polarities which exert magnetic forces across the field. The relative strength of one pole over its opposite may vary from one case study to another, and as each binary operates independently the resulting magnetic field in each school will be unique. Two of the binaries considered here relate to epistemology and are shown on the vertical axis in Figure 6.3:

- Constructs of knowledge which are independent, externally defined, propositional and realist vs. constructivist and context-embedded knowledge.
- Models of research and knowledge creation that are realist, positivist and trust in the outsider professional vs. interpretive research models based on action research designed to create change and conducted by insider practitioners.

Four others that have been discussed in previous chapters relate to political organisation at varying scales and are shown on the horizontal axis in Figure 6.3:

- Political control, the structures, policies and underpinning ideology tending towards centralised power vs. localised political control.
- Change vs. stability.
- Conflict levels ranging from compliance, homogeneity and low level of conflict vs. resistance, heterogeneity and high level of conflict.

- Organisational outlook expressed in policies based on compartmentalisation and disintegration vs. those based on integration and transferability.

As these forces cross the school field, we can visualise them shaping its structure, pulling some parts of the field in one direction while other vectors pull other parts in another, re-shaping it as if it were a lump of plasticine. Meanwhile the internal characteristics of the field itself also affect its resulting shape through the values and policies of leadership, ideological commitment and cohesion of staff and how these interface with the magnetic forces. In this way each school field emerges as unique although subject to the same model, evocative of Bourdieu's interface between habitus and field.

Under-scoring everything we find the question of legitimacy, credibility and currency; how much value, belief or trust participants place in what is said by themselves, each other, University partners, outsider researchers, insider researchers, publications the Department for Education and so on. In the language of research, this affects their perception of authenticity, truthfulness, validity and reliability of anything anyone else might tell them. This is the participants' ontology, their understanding of their surrounding reality, influenced in turn by all aspects of the field and their individual habitus. This colours their perception and response to membership of their community of practice, school, the teaching profession and all of the issues embodied within the six binaries.

By placing the student teacher at the centre of this model we can now consider how differences in the resulting school field structures can lead to differences in the use of his/her research. For example, we can review Aldley as characterised by considerable micro-political conflict submerged beneath apparent compliance towards centrally directed change in the form of departmental re-organisation and other examples of centralised diktat regarding health and safety. The Aldley case study captured a period of change in the balance of binary forces, with the field moving towards a more integrated curriculum and staffing structure. Attitudes to the nature of research and knowledge creation were seen to move towards constructivism and support for the insider researcher model. Under these circumstances the student research was afforded considerable legitimacy. Caxton appeared to contrast, a school that was seeking to decentralise power and support teacher knowledge creation through

P/TLCs which also supported an ethos of curricular and role integration and the capacity for transferability. However, there was a low level of compliance and a corresponding high level of micro-political conflict in response to these progressive changes, detected through participant accounts. The school experienced a high level of ongoing change generated by these local structures, considered by some as dynamism but by others as instability. Under these circumstances the student research was afforded very little legitimacy or value. In Bentham, centralised control, low conflict, high compliance and stability together with a realist view of knowledge resulted in student research being seen as useful rather than inspiring or threatening, although it may have caused some people a little discomfort.

6.3 Should ITE include a research project?

This overlapping force-field of binaries affects the national discourse surrounding the purpose of education, nature of educational reform, design of ITE, models of teacher professionalism and the place of research within this as discussed in Chapter One. Since ITE is by definition the preparation of the next generation of teachers, whether or not a research project should be included will depend on the reading of that discourse. In policy terms, this will depend on the outcome of the contest previously described between polarised positions identified in Figure 6.3. This thesis has argued for a model of teacher professionalism which is reflective and evidence-informed so that teachers can make substantiated judgements about what and how to teach their pupils. To this end, teachers should be empowered with the skills and motivation to research their own classrooms and this should form part of ITE.

There is interplay between this national discourse about teacher professionalism (Whitehead 2011) and ITE at local and national scales, as represented by the nesting of fields in Figure 6.3. Each scale receives its legitimacy from the other, schools heeding direction from the statutory authority and funding source of central government yet central government depending on school compliance for legitimation of its policies (Foucault, 1979). Although schools tend towards the compliance pole in relation to government policy, innovators will always explore opportunities offered by blind spots or inconsistencies in the system as we are seeing with the emergence of researching-school pioneers surrounding the Teaching School initiative. Time will tell how these pioneers come to affect the national discourse. Meanwhile, student teacher research has long since maintained this role within schools, creating a research presence by

occupying a blind spot of sorts: something schools would not have prescribed but have been willing to tolerate if not value as part of a University course upon which they have depended to secure teacher supply.

6.4 How does student teacher research contribute to knowledge creation within the secondary school context?

The notion of binary thinking has run through this thesis. It has been all too easy to slip into over-simplified and fixed positions as demonstrated by the Hargreaves (1996)-Hammersley (1997) debate about the orientation of educational research. Advocates of insider research too easily dismiss outsiders and vice versa. By pursuing a polarised argument both sides are likely to lose. Instead we can see that Hammersley's outsider can contribute detachment, strategic overview, methodological and practical expertise, policy and theoretical knowledge, currency and legitimacy to a research partnership just as Hargreaves's insider can contribute local knowledge and motivation for change. Both matter and the student teacher as a hybrid semi-insider/outsider is ideally placed to bridge this gap if trained to do so as part of ITE. This would also build the foundations for development of a more widespread culture of school-University research partnership and teacher classroom research. Indeed, student teacher research activity provides a model to experienced teachers for how to conduct it and for how it can be an integral part of teacher professionalism. Life within the force-fields of student teacher research is not dictated by one polarity or another. Rather, school life carries on according to its particular force-field configuration with occasional pulses of energy or re-positioning as one vector or another re-calibrates its grip. The regular flow of student teacher research through schools can trigger these pulses, introduce new knowledge, unsettle stagnation and refresh teachers' outlook.

The process of researching and writing this thesis has had a number of impacts on policy in the participating schools and the University. As has been described the curriculum and approaches to learning at Aldley and Bentham have been affected by both my own and the students' research. Interviews with Professional Tutors and mentors have introduced them to P/TLCs as a new model for CPD and created space for reflection about their own practice. As discussed, my interviews acted in themselves as stimuli for attitudinal change.

Meanwhile the University Department of Education's ITE team which abandoned the Special Study in 2011 in an effort to rationalise the heavy assignment workload for student teachers, has re-introduced an optional accredited PGCE module in 2013-14. 'Curriculum Studies 2: Researching Professional Knowledge' requires students to design and conduct a small scale classroom enquiry. These are then presented to a research conference for the entire cohort at the end of the year. In its first year the project recruited a third of the ITE cohort, however feedback from the June 2014 conference audience was extremely positive with many expressing regret that they had not participated. Furthermore, 90% of those who presented have gone on to enrol in our MA in Education during their first year as a Newly Qualified Teacher. I would like to think that my contribution to discussions among ITE colleagues, formally and informally about the issues explored in this thesis (the value of practitioner research, the model of teacher professionalism, the power of school-University partnerships and the particular role of student teachers as active agents) may have played a role in these developments.

In a parallel, in 2014-15 the Department of Education has launched the Sussex Research Network, a new school-University research partnership through which schools will develop their research culture through a bespoke Masters pathway in Developing Research Leadership and Enquiry and partnering with a University critical colleague. In its pilot year, sixteen students have been enrolled by eight sponsoring schools, with a half-day release for study and other time earmarked for research development responsibilities. This resource commitment is a highly significant signal to other schools in the partnership field as well as the staff of the schools themselves, recognising classroom research as a priority which needs to be resourced. As this course develops so it is hoped partnership classroom research will grow in the profile of the department's portfolio of research activity. In this context this thesis is most timely and has enabled me to position myself within this new partnership.

6.5 Limitations of the Study

It has been difficult to maintain a concise focus throughout this study precisely because its concerns have been so broad and because it has delved into a number of border-worlds

exploring the boundaries between practitioner-research, school-University, novice-expert, insider-outsider, positivist-interpretive, structure-agency. At the same time it has tried to address issues operating at individual, local, regional and national scales. However a more tightly focused study would have lacked the conceptual breadth attempted here.

The study's developmental methodology can be looked at as either weakness or strength. From a critical standpoint, it has shortcomings as either a positivist or an interpretive research programme. As a positivist programme, it could have engaged a larger sample of participants, sought more consistent interview conditions, established clear common codes for data analysis and made arrangements to obtain the missing interviews. The research questions would have been framed less openly and a firmer conclusion might have been offered. Meanwhile to be a better narrative research project, it could have been built upon reflective journals written at key designated points by all respondents and myself in response to key events along the timeline of the Special Study. This could have foregrounded a less adulterated version of the participants' view without my influence in the co-construction of the interviews. Participants might also have been invited to construct portraits of the schools and to provide an autobiography which provided insight into their perception of and positioning towards their school. However, such evaluations are easier to make in hindsight. The reverse strength of these shortcomings is that the methodological journey described within the thesis will be of as much interest or value to the reader as it has been to me.

6.6 Further Avenues for Research

Building on this research, I would like to follow up by re-visiting and interviewing the participants of this study to review their original participation and explore the impact it may have had on them including whether they have engaged in any research activities since. This could support our understanding of the impact of questioning and participation on praxis.

But looking to the near future, both of the new departmental initiatives described in 6.4 offer opportunities for the study of the development of research cultures and should be monitored and researched. As the optional PGCE classroom research project Curriculum Studies 2 goes into its second cycle, students could extend to considering their own research impact on their

colleagues as well as classroom. It would also be valuable to follow the original participants from last year to track their attitudes and possibilities of involvement in classroom research in their schools; and to seek their narrative about how they may or may not have been able to engage their schools with a research agenda. This could become an ongoing project and just as this thesis has provided a legitimate space for asking questions and opening up discussion in my three case study schools, so an ongoing project could do the same in twenty-eight further schools. Meanwhile the new MA pathway for Developing Research Leadership and Enquiry offers another opportunity. It has already been agreed by all partners that the network will monitor and research its own process. This will not only contribute to an understanding of network building but also provide a window on the evolving research cultures and communities of practice within the eight participating schools. As Teaching Schools seek ways of fulfilling the 'big six' expectation of engagement with research, these initiatives may provide the basis for national guidance.

To summarise, this chapter has theorised upon the hybrid nature of student teacher researchers and the unique nature of their research knowledge, constituting a distinct trans-contextual category of knowledge and research. To understand differences of outcome, I have offered a theoretical framework for understanding the position of the student teacher within overlapping school-University fields nested within the national educational landscape. The framework draws on structural and ideological forces as well as considerations of interpretation and agency. The future of student teacher research is dependent on the outcome of national debate about the nature of teacher professionalism. But there are local indications that teacher-researcher culture will enjoy resurgence.

BIBLIOGRAPHY

- Abbott, A., (1992) What do Cases Do? Some Notes on Activity in Sociological Analysis. In C. Ragin and H. Becker(eds.) *In What is a Case? Exploring the Foundations of Social Enquiry*. Cambridge University Press.
- Ahlstrand, E., Carlsson, G., Hartman, S., A, M., Naeslund, L. and Rannstrom, A., (1996) Teacher Knowledge Development in a Social and Individual Context. In Kompf,M. Bond,R. Boak, T.and Dworet,D. (eds.) *Changing Research and Practice: Teachers' Professionalism, Identities and Knowledge*. London:Taylor Francis
- Aitken, S. and Valentine, G. (2009). *Approaches to Human Geography*. London: Sage
- Akyeampong, K., (2008) *Researching Lived Experiences: Symbolic Interactionism*. University of Sussex DSW/Ed D lecture notes.
- Anderson, G. and Arsenault, N., (1998) *Fundamentals of Educational Research*. London: Falmer.
- Apple, M.W. (2001) *Educating the Right Way: Markets, Standards, God and Inequality*. New York, London: Routledge Falmer
- Apple, M.W., (2014) 3rd edition *Official Knowledge: Democratic Education in a Conservative Age* New York, London:. Routledge
- Aristotle (1962) *The Politics*, trans. J.A. Sinclair, Harmondsworth, Middlesex: Penguin Classics
- Arnstein, S. (1969) Citizens' Ladder of Participation. *AIP Journal*, July 1969.
- Ashcroft, B., Griffiths, G. and Tiffin, H. (1998) *Key Concepts in Post-Colonial Studies*. New York, London: Routledge.
- Ashwin, P. and Trigwell, K., (2004) Investigating Staff and Educational Development. In Baume,D. and Kahn,P., (eds.)*Enhancing Staff and Educational Development*. London: Falmer Routledge.
- Atkinson, W. (2011) From Sociological Fictions to Social Fictions: Some Bourdieusian Reflections on the Concepts of 'Institutional Habitus' and 'Family Habitus'. *British Journal of Sociology of Education*, 32 (3), 331-347.
- Ball, S. (1987) *The Micro-Politics of the School: Towards a theory of social organisation*. London New York: Methuen.
- Ball, S.J. (2009) Privatising education, privatising education policy, privatising educational research: network governance and the 'competition state'. *Journal of Educational Policy*, Vol. 24, no.1, 83-99
- Ball, S.J. (2012) The 'Reluctant' State and the Beginning of the End of State Education.*Journal of*

Educational Administration and History, 2012, Vol.44(2), 89-103

Ball, S.J. (2014) *What's Wrong with Educational Policy Research? Seven Fallacies*. Lecture, University of Brighton, 15th October 2014.

Banks, F., Leach, J. and Moon, B., (1999) New Understandings of Teachers' Pedagogic Knowledge, In Leach, J. and Moon, B. (eds.) *Learners and Pedagogy*. London: Paul Chapman Publishing.

Baumeister, R. and Leary, M. (1995) The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation. *Psychological Bulletin*, 117 (3), 497-529.

Bernstein, B., (1971) On the Classification and Framing of Educational Knowledge. In Young, M. (ed.) *Knowledge and Control*. London: Collier Macmillan.

Berryman, C. (1949) A Student Teacher Research Programme. *The Phi Delta Kappan*, 30 (7), 256-257.

Bloom, B., Engelhart, M.D., Furst, E., Hill, W. and Krathwohl, D., (1956) *A Taxonomy of Educational Objectives: the Classification of Educational Goals*. New York: Shortmans Green.

Bolam, R., McMahon, A., Stoll, L., Thomas, S. and Wallace, M. (2005) *Creating and Sustaining Effective Professional Learning Communities*. DfES.

Bourdieu, P. (1990) *The Logic of Practice*. Cambridge: Polity.

Bourdieu, P. and Eagleton, T., (2012) Doxa and Common Life: an Interview. In Zizek, S. (ed) *Mapping Ideology*. London: Verso 265-278.

Brayboy, B. and Dehyle, D. (2000) Insiders-Outsiders: Researchers in an American-Indian Community. *Theory into Practice*, 39 (3), 163-169.

Brighouse, T. and Moon, B., (2013) *Taking Teacher Development Seriously: A Proposal to Establish a National Teaching Institute for Teacher Professional development in England*. New Visions for Education group.UK.

Brighouse, T. and Woods, D. (1999) *How to Improve your School*. New York, London: Routledge.

British Educational Research Association (BERA) with Royal Society of Arts(RSA), (2014) *Research and Teacher Education: the BERA-RSA Inquiry*. BERA/ RSA.

Brooks, C., (2006) *Theory into Practice: Cases and Places*. Sheffield: Geographical Association.

Bruner, J. (1976) *The Process of Education*. Harvard University Press.

Burrell, G. and Morgan, G., (1979) *Sociological Paradigms and Organisational Analysis*. London: Heinemann.

Calderhead, J., (1993) The Contribution of Research to Teachers' Thinking to the Professional Development of Teachers. In C. Day, J. Calderhead and P. Danicolo (eds.) *Research on*

- Teacher Thinking: Understanding Professional Development*. London: Falmer.
- Carter, R. and Philip, G., (2010) Deconstructing the Ubaid. In Carter, R. and Philip, G., (ed.) *Beyond the Ubaid: Transformation and Integration in the Late Prehistoric Societies of the Middle East*. Chicago: Oriental Institute of the University of Chicago.
- Chambers, R. (1997) *Who's Reality Counts? Putting the First Last*. Falmer, Brighton: Institute of Development Studies
- Chorley R.J. and Haggett P. (1967) *Models in Geography*. London: Methuen.
- Clandinin, D. and Connelly, F., (1996) A Storied Landscape as a Context for Teacher Knowledge. In Kompf, M. et al. (eds.) *Changing Research and Practice: Teachers' Professionalism, Identities and Knowledge*. London: Taylor Francis.
- Clandinin, D.J., and Connelly, F.M., (2000) *Narrative Inquiry: Experience and Story in Qualitative Research* Jossey-Bass New York
- Cohen, L., Manion, L. and Morrison, K. (2007) *Research Methods in Education*. 6th edition. New York, London: Routledge.
- Cordingley, P. (2011) Engaging Teachers in and with Research -A Long View. *Research Intelligence*, (116).
- Cornwall, A. and Jewkes, R. (1995) What is Participatory Research? *Social Science and Medicine*, 41 (12), 1667-76.
- Couture, J.-C. (1994) Dracula as an Action Researcher. *Educational Action Research*, 2 (1).
- Crow, F. (2008) Learning for well-being: personal, social and health education and a changing curriculum. *Pastoral Care in Education: An International Journal of Personal, Social and Emotional Development* Vol. 26 (1) 43-51
- Curtis, B. (1978) *Phenomenology and Education*. London: Methuen.
- Day, C., (1993) The Development of Teachers' Thinking and Practice: Does Choice Lead to Empowerment? In Elliott, J. (ed.) *Reconstructing Teacher Education*. London: Falmer.
- Day, C. (1999) *Developing Teachers: The Challenges of Lifelong Learning*. New York, London: Routledge Falmer.
- Day, C. and Hadfield, M., (1996) Metaphors for Movement: Accounts of Professional Development'. In Kompf, M. et al. (eds.) *Changing Research and Practice: Teachers' Professionalism, Identities and Knowledge*. London: Taylor Francis.
- Day, C. and Sachs, J. (2004) *International Handbook on the Continuing Professional Development of Teachers*. Milton Keynes: Open University.
- Denicolo, P., (1996) Productively Confronting Dilemmas in Educational Practice and Research. In Kompf, M. et al. (eds.) *Changing Research and Practice: Teachers' Professionalism, Identities and Knowledge*. London: Taylor Francis.

- Department for Children Schools and Families, (2007) *National Curriculum*. London: HMSO.
- Department for Education, (2010) *The Importance of Teaching* white paper. London: HMSO.
- Department for Education, (2011a) *Teachers' Standards*. London: DfE.
- Department for Education, (2011b) *Training our Next Generation of Outstanding Teachers*. London: HMSO.
- Department for Education, (2011c) *Community Cohesion*, FOI release, 28th February 2011
London: DfE
- Department for Education, (2013) *National Curriculum*. London: HMSO.
- Dewey, J., (1904) The Relation of Theory to Practice in Education. In Archambault, R.D. (ed.) *John Dewey on Education: Selected Writings*. University of Chicago Press, 313-338.
- Dewey, J. (1933) *How we Think: A Restatement of the Relation of Reflective Thinking to the Educative Process*. Boston MA: DC Heath.
- Dobber, M., Akkerman, S., Verloop, N. and Vermunt, J. (2012) Student Teachers' Collaborative Research: small-scale research projects during teacher education. *Teaching and Teacher Education*, 28 (4), 609-617.
- Donaldson, G., (2011) *Teaching Scotland's Future: Report of a Review of Initial Teacher Education in Scotland*. Scottish Government.
- Drake, P., (2009) *An Introduction to Case Study Research*. Lecture on 7th February 2009, EdD, University of Sussex.
- Drake, P. and Heath, L. (2011) *Practitioner Research at a Doctoral Level*. New York, London: Routledge.
- Dreyfus, S. and Dreyfus, H., (1980) *A Five Stage Model of Mental Activities Involved in Directed Skill Acquisition*. Washington DC: Storming Media.
- Dunne, M., Yates, P. and Pryor, J. (2005) *Becoming a Researcher*. Milton Keynes: Open University.
- Ebbutt, D. (2006) The Development of a Research Culture in Secondary Schools. *Educational Action Research*, 10 (1), 123-142.
- Eisner, E. and Vallance, E., (1974) *Conflicting Conceptions of Curriculum*. Berkeley, CA: McCutchan.
- Elliott, J. (1993) *Reconstructing Teacher Education*. London: Falmer.
- Elliott J and Sarland C. (1995) A Study of Teachers as Researchers in the Context of Award-Bearing Courses and Research Degrees. *British Educational Research Journal* Vol. 21 no 3 p371-386
- Elliott, J., (2004) Using Research to Improve Practice: the Notion of Evidence-Based Practice. In Day C. and Sachs J. (eds.) *International Handbook of Continuing Professional*

- Development of Teachers*. Milton Keynes: Open University.
- Elliott, J. (2005) *Using Narrative in Social Research*. London: Sage.
- Eraut, M. (1994) *Developing Professional Knowledge and Competence*. London: Falmer.
- Exley, S. and Ball, S.J. (2011) Something old, something new: understanding Conservative education policy in Bochel, H. (ed) *The Conservative Party and Social Policy* Policy Press
- Eyblen, R. (2013) *Uncovering the Politics of 'Evidence' and 'Results'. A Framing Paper for Development Practitioners*. www.bigpushforward.net.
- Ezzy, D. (2002) *Qualitative Analysis: Practice and Innovation*. New York, London: Routledge.
- Feleppa, R. (1986) Emics, Ethics and Social Objectivity. *Current Anthropology*, 27 (3), 243-255.
- Fendler, L. (2004) Praxis and Agency in Foucault's historiography. *Studies in Philosophy and Education*, 23 (5), 445-466.
- Fielding, M. (2001) Learning Organisation or Learning Community? A Critique of Senge. *Reason in Practice*, 1 (2), 17-29.
- Fielding, M., Steadman, S., Eraut, M. and Horton, A., (1995) *Making School Based INSET Effective*. Falmer, University of Sussex.
- Firth, R., (2013) What Constitutes Knowledge in Geography? In Lambert, D. and Jones, M. (eds.) *Debates in Geography Education* New York, London: Routledge.
- Flyvbjerg, B. (2006) Five Misunderstandings about Case Study Research. *Qualitative Inquiry*, 12 (2), 219-245.
- Foer, J.S. (2006) *Extremely Loud and Incredibly Close*. Buena Vista VA: Mariner
- Foucault, M., (1979) *Discipline and Punish: The Birth of the Prison*. New York: Vintage.
- Fowler, H.W. and Fowler, F.G. (1964) *The Concise Oxford Dictionary of Current English* Oxford: Clarendon Press.
- Fullan, M. (2003) *Change Forces with a Vengeance*. New York, London: Routledge Falmer.
- Furlong, J., (2013) *Research and Initial Teacher Education*. BERA Annual Conference, University of Sussex, September 2013.
- Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P. and Trow, M., (1994) *The New Production of Knowledge; the dynamics of Science and research in contemporary societies*. London: Sage.
- Giroux, H. (1983) *Theory and Resistance in Education: A Pedagogy for the Opposition*. London: Heinemann.
- Gitlin, A., Barlow, L., Burbank, M., Kauchak, D. and Stevens, T. (1999) Pre-Service Teachers' Thinking on Research: Implications for Inquiry Oriented Teacher Education. *Teaching and Teacher Education*, 15, 753-769.
- Gitlin, A., Bringham, K., Burns, M., Cooley, V., Myers, B., Price, K., Russell, R. and Tiess, R.

- (1992) *Teachers' Voices for School Change: An Introduction to Educative Research*. New York, London: Routledge.
- Goldacre, B., (2013) in Department for Education *Building Evidence into Education*, London: HMSO.
- Gore, J. and Zeichner, K. (1991) Action Research and Reflective Teaching in Pre-Service Teacher Education: A case study from the U.S. *Teaching and Teacher Education*, 7 (2), 119-136.
- Greany, T., (July 2012) *School Improvement through Research*. Speech at Annual Conference, Association of Partnership in Teacher Education (APTE), Cheltenham.
- Green, A. (2006) University to School: Challenging Assumptions in Subject Knowledge Development. *Changing English: Studies in Culture and Education*, 13 (1).
- Griffiths, V., Thompson, S. and Hryniewicz, L. (2010) Developing a Research Profile: Mentoring and Support for Teacher Educators. *Professional Development in Education*, 36 (1-2), 245-262.
- Grossman, P., Wilson, S. and Shulman, L., (1989) Teachers of Substance: Subject Matter Knowledge for Teaching. In M. Reynolds (ed.) *Knowledge Base for the Beginning Teacher*. Oxford: Pergamon Press.
- Groundwater-Smith, S. and Dadds, M., (2004) Critical Practitioner Enquiry: Towards Responsible Professional Communities of Practice. In Day C. and Sachs J. (eds.) *International Handbook on the Continuing Professional Development of Teachers*. Milton Keynes: Open University.
- Halsall, R. (1998) *Teacher Research and School Improvement: Opening Doors from the Inside*. Milton Keynes: Open University.
- Hammersley, M. (1997) Educational Research and Teaching: A response to David Hargreaves' TTA lecture. *British Educational Research Journal*, 23 (2), 141-161.
- Hanks W.F. (1991) *Introduction to Situated Learning: Legitimate Peripheral Participation*. Cambridge University Press.
- Hargreaves, D.H., (1993) A Common Sense Model of the Professional Development of Teachers. In J. Elliott (ed.) *Reconstructing Teacher Education*. London: Falmer.
- Hargreaves, D.H., (1996a) *Teaching as a Research-based Profession: Possibilities and Prospects*. Teacher Training Agency Annual Lecture 1996
- Hargreaves, D.H., (1996b) Educational Research and Evidence-based Educational Research: A Response to Critics. *Research Intelligence* 58, November, 12-16
- Hargreaves, D.H. (1997) In Defence of Research for Evidence-based Teaching: a rejoinder to Martyn Hammersley. *British Educational Research Journal* 23 (4) 405-419
- Hargreaves, D.H., (1999) The Knowledge Creating School. *British Journal of Educational Studies*,

47 (2), 122-144.

Hargreaves, D.H., (2012) Leading a Self-Improving School. *National College for School Leadership*.

Harris, M. (1974) Why a Perfect Knowledge of all the Rules One Must Know to Act Like a Native Cannot Lead to Knowledge of How a Native Acts. *Journal of Anthropological Research*, 30 (4), 242-251.

Hillage, J., Pearson, R., Anderson, A. and Tamkin, P. (1998) *Excellence in Research on Schools*. London: DfEE.

Hirsch, E., (2006) The Knowledge Deficit: Closing the Shocking Education Gap for American Children. Boston: Houghton Mifflin.

Hobbes, T. (1651) *Leviathan* Oxford: Clarendon Press

Holland, D., Lachicotte, W.J., Skinner, D. and Cain, C. (1998) *Identity and Agency in Cultural Worlds*. Harvard.

Hopkins, D. (2001) *School Improvement for Real*. New York, London: Routledge.

Huberman M.A. (1995) *The Lives of Teachers*. New York: Teachers College Press.

Hulme, M. (2013) Change in Teacher Education and Educational Research. *Research Intelligence*, (121), 10.

Kemmis, S and Grootenboer, P. (2008) Situating Praxis in Practice in Kemmis, S. and Smith, T. (eds) *Enabling Praxis: challenges for education*. Rotterdam, Taipei: Sense publishers

Kershner, R. and Hargreaves, L. (2012) Student Teachers' Distinctive Contribution to Research on Primary School Children's Beliefs about Knowledge and Knowing. *Journal for Education for Teaching*, 38 (3), 275-293.

Kershner, R., Flutter, J. and Rudduck, J. (1998) Teacher Research as a Basis for School Improvement: but is it useful beyond the school in which it was carried out?, *Improving Schools*, 1, 2, 59-62.

Kinder, A. (2008) Curriculum Making. *Teaching Geography*.

Kirk, J. and Miller, M. (1986) Reliability and Validity in Qualitative Research. *Qualitative Research Methods*, Series 1. Beverley Hills CA; Sage.

Kompe, M., Bond, R., Dworet, D. and Boak, T. (1996) *Changing Research and Practice: Teachers' Professionalism Identities and Knowledge*. London: Taylor Francis.

Kvale, S. and Brinkman, S. (2009) *Interviews: Learning the Craft of Qualitative Research Interviewing*. 2nd ed. Beverley Hills CA: Sage.

Lambe, J. (2011) Developing Pre-Service Teachers' Reflective Capacity through Engagement with Classroom-Based Research. *Reflective Practice*, 12 (1), 87-100.

Lambert, D., (1996) Understanding and Improving School Geography: the Training of Beginning

- Teachers. In Williams, M. (ed.) *Understanding Geographical and Environmental Education*. London: Cassell.
- Lambert, D and Morgan, J. (2010) *Teaching Geography 11-18: A Conceptual Approach*. Maidenhead, London: McGraw Hill
- Laming, L., (2003) *The Victoria Climbié Inquiry*. London: HMSO.
- Landsberger, H., (1958) *Hawthorne Revisited: "Management and the worker", its critics, and developments in human relations in industry* New York State School of Industrial and Labor Relations
- Lather, P. (1986) Research as Praxis. *Harvard Educational Review*, 56 (3), 257-278.
- Lave, J. and Wenger, E. (1991) *Situated Learning: Legitimate Peripheral Participation*. Cambridge University Press.
- Lave, J. and Wenger, E., (1999a) *Communities of Practice: Learning, Meaning and Identity*. Cambridge University Press.
- Lave, J. and Wenger, E., (1999b) Legitimate Peripheral Participation in Communities of Practice. In McCormick R. and Paechter C. (eds.) *Learning and Knowledge*. Milton Keynes: Open University.
- Lawton, D., (1983) *Curriculum Studies and Educational Planning*. London: Hodder and Stoughton.
- LeCompte, M. and Preissle, J. (1993) *Ethnography and Qualitative Design in Educational Research*. London: Academic Press.
- Leslie, C., (2013) *Towards a Royal College of Teaching; Raising the Status of the Profession*. London: Royal College of Surgeons.
- Levi-Strauss, C. (1973) Structuralism and Ecology. *Social Science Information*, 12, 7-23.
- Lincoln, Y. and Guba, E., (1985) *Naturalistic Inquiry*. London: Sage.
- Loxley, A. and Seery, A., (2008) Some Philosophical and other Related Issues of Insider Research. In P. Sikes and A. Potts (eds.) *Researching Education from the Inside; Investigations from Within*. New York, London: Routledge.
- Maaranen, K. and Krokfors, L. (2008) Researching Pupils, Schools and Oneself: Teachers as interrogators of theory and practice in initial teacher education. *Journal of Education for Teaching*, 32 (3), 207-222.
- Mahoney, P. and Hextall, I (2000) *Reconstructing Teaching: Standards, Performance and Accountability*. New York, London: Routledge Falmer
- March, J. (1991) Exploration and Exploitation in Organisational Learning. *Organization Science*, 2 (1), 71-87.
- McIntyre, D., (2008) Researching Schools. In Black-Hawking, K., McLaughlin C., McIntyre D.,

- Townsend A. (eds.) *Networking Practitioner Research*. New York, London: Routledge.
- McLaughlin, C., Black-Hawkins, K., Brindley, S., McIntyre, D. and Taber, K. (2006) *Researching Schools: Stories from the Schools-University Partnership for Educational Research*. New York, London: Routledge.
- McLaughlin, C., Black-Hawkins, K., McIntyre, D. and Townsend, A. (2008) *Networking Practitioner Research*. New York, London: Routledge.
- Menter, I. (2013) What is Going On? Critical Times in Teacher Education and Educational Research. *Research Intelligence*, (121), 8.
- Menter, I. (Autumn 2011) Teacher Education Research -Past, Present, Future. *Research Intelligence*, (116).
- Merton, R. (1972) Insiders Outsides: A Chapter in the Sociology of Knowledge. *American Journal of Sociology*, 78 (1), 9-47.
- Miller, P. (2011) Free Choice, Free Schools and the Academisation of Education in England. *Research in Comparative and International Education* Vol.6 (2) 170-182
- Mincu, M., (2014) *Teacher Quality and School Improvement: What is the role of research?* :London: BERA-RSA Inquiry.
- Moody, R. (1988) *Indigenous Voices: Visions and Realities*. London: CIMRA.
- Muller, U., Carpendale, J. and Smith, L., (2009) *The Cambridge Companion to Piaget*. Cambridge University Press
- Munro, R., (1993) A Case Study of School-based Training Systems in New Zealand Secondary Schools. In Elliott J. (ed.) *Reconstructing Teacher Education*. London: Falmer.
- Naish, M., Rawling, E. and Hart, C. (1987) *Geography 16-19: The contribution of a curriculum project to 16-19 education*. Longman
- National College for Teaching and Leadership, (2013) *National Teaching Schools*. website [www.education.gov.uk/nationalcollege/index/support-for-schools/teaching schools](http://www.education.gov.uk/nationalcollege/index/support-for-schools/teaching-schools).
- National Teacher Research Panel, (2011) *Habitats for Teacher Research: Teacher perspectives on research as a sustainable environment for CPD*. London.
- Oakley, A. (2001) Making Evidence Based Practice Educational: A rejoinder to John Elliott. *British Educational Research Journal*, 27 (5), 575-576.
- Olson, M., (1996) Becoming a Trained Professional. In Kompf M., Dworet D., Boak R.T, (ed.) *Changing Research and Practice: Teachers' Professionalism, Identities and Knowledge*. London: Taylor Francis.
- Ong'ondo, C. and Jwan, J. (2009) Research on Student Teacher Learning, Collaboration Supervision during the Practicum: A Literature Review. *Educational Research and Reviews*, 4 (11), 515-524.

- Parliament of the United Kingdom, (2004) *The Children's Act*. London: HMSO.
- Parliament of the United Kingdom, (2010) *Academies Act: an Act to Make Provision About Academies*. London: HMSO.
- Peet, R. (1977) *Radical Geography: Alternative Viewpoints on Contemporary Social Issues*. London: Methuen.
- Phoenix, A., (2013) *Chaos, Creativity and Connections*. 6th Annual Doctoral Conference, University of Sussex.
- Piaget, J. (1958) *The Growth of Logical Thinking from Childhood to Adolescence*. New York: Basic Books.
- Piaget, J., (1997) Development and Learning. In Gauvin, M. and Cole, M. (eds.) *Readings on the Development of Children*. New York: Freeman and Co.
- Polanyi, M. (1966) *The Tacit Dimension*. Chicago: Chicago Press.
- Ragin, C. and Becker, H., (1992) *What is a Case? Exploring the Foundations of Social Enquiry*. Cambridge University Press.
- Ray, R., (1993) Contextual Constraints on Knowledge Making: Graduate Student Teacher Research. *The Practice of Theory: Teacher Research in Composition*. NCTL, USA.
- Reay, D. (2004) 'It's All Becoming Habitus': beyond the habitual use of habitus in educational research. *British Journal of Sociology of Education*, 25 (4).
- Rhodes, C., Stokes, M. and Hampton, G. (2004) *A Practical Guide to Mentoring, Coaching and Peer-Networking*. New York, London: Routledge Falmer.
- Rickinson, M., Sebba, J. and Edwards, A. (2011) *Improving Research through User Engagement*. New York, London: Routledge.
- Ridley, M. (2003) *Nature via Nurture: genes, experience and what makes us human*. New York: Harper Collins
- Robson, C. (2002) *Real World Research*. 2nd (ed.) Oxford: Blackwell.
- Rosenthal, R., (2013) Partnership Mentors Discussion notes.
- Rudduck, J. (1991) *Innovation and Change: Developing Involvement and Understanding*. Milton Keynes: Open University.
- Ryan, A. (2012) Integrating Experiential and Academic Learning in Teacher Preparation for Development Education. *Irish Educational Studies*, 31 (1), 35-50.
- Sachs, J. (2003) *The Activist Teaching Profession*. Milton Keynes: Open University.
- Sahlberg, P. (2010) Educational Change in Finland In *Second International Handbook of Educational Change*. Heidelberg, London, New York: Springer
- Schön, D. (1983) *The Reflective Practitioner: How Professionals Think in Action*. New York: Basic Books

- Schön, D. (1987) *Educating the Reflective Practitioner*. San Francisco: Jossey-Bass.
- Schulman, L. (1986) Those who Understand: Knowledge Growth in Teaching. *Educational Researcher*, 15 (2), 4-31.
- Senge, P., (1990) *The Fifth Discipline*. New York: Random House.
- Sergiovanni, T. (1994) *Building Community in Schools*. San Francisco: Jossey-Bass.
- Sikes, P. and Potts, A., (2008) Introduction: What are we talking about? And Why? In P. Sikes and A. Potts (eds.) *Researching Education from the Inside; Investigations from Within*. New York, London: Routledge.
- Simons, H. (1996) The Paradox of Case Study. *Cambridge Journal of Education*, 26 (2), 225-240.
- Skidmore, C., (5th April 2013) Sorry NUT, Gove's Reforms are no Pub Quiz. Daily Telegraph.
- Skinner, B. (1961) Why we need Teaching Machines. *Harvard Educational Review*, 31, 377-398.
- Slater, F. (1986) *People and Environments: Issues and Enquiries*. London: Collins Educational
- Stenhouse, L. (1975) *An Introduction to Curriculum Research and Development*. London: Heinemann.
- Sundaramurthy, C. and Lewis, M. (2003) Control and Collaboration: Paradoxes and Governance. *Academy of Management Review*, 28 (3), 397-415.
- Tajfel, H. and Turner, H., (1986) The Social Identity Theory of Inter-Group Behaviour. In S. Worchel and L. Austin (eds.) *Psychology of Inter-Group Relations*. Chicago: Nelson Hall.
- Taylor, I., (November 2008) *Being a Professional*: lecture given to DSW/EdD. University of Sussex.
- Teacher Training Agency, (1992) *Professional Standards for Teachers*. London: TTA.
- Timperley, H., (2007) *Teacher Professional Learning and Development: Best Evidence Synthesis Iteration*. New Zealand Ministry of Education.
- Tooley, J., (1999) *Educational Research: A Critique*. London: OFSTED
- Tooley, J. (2001) The Quality of Educational Research: A Perspective from Great Britain. *Peabody Journal of Education*, 76 (3/4), 122-140.
- Torrance, H. and Pryor, J. (2001) Investigating Formative Assessment in the Classroom: Using Action Research to Modify Theory in the Classroom. *British Educational Research Journal*, 27 (5), 615-631.
- Training and Development Agency, (2008) *Professional Standards for Qualified Teacher Status*. London: TDA.
- Vescio, V., Ross, D. and Adams, A. (2008) A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and Teacher Education*, 24 (1), 80-91.
- Vygotsky, L., (1962) *Thought and Language*. Cambridge University Press.

- Watson, C. (2014) Effective Professional Learning Communities? The Possibilities for Teachers as Agents of Change in Schools. *British Educational Research Journal*, 40 (1), 18-29.
- Watson, J. (1925) *Behaviourism*. New York: Norton and Company.
- Webb, J., Schirato, T. and Danaher, G. (2002) *Understanding Bourdieu*: London Sage.
- Webster, L., and Mertova, P. (2007) *Using Narrative Inquiry as a Research Method*. New York, London: Routledge.
- Webster-Wright, A. (2009) Reframing Professional Development through Understanding Authentic Professional Learning. *Review of Educational Research*, 79 (2), 702.
- Wenger, E., (Downloaded from website www.ewenger.com 2013) *Communities of Practice and Social Learning Systems*.
- Weston, D., (2013) *The Teacher Development Trust: An introductory talk*. London, UCET CPD Committee, 23.5.13.
- Whitehead, J., (2011) Teacher Education in England: the changing landscape and key drivers behind the reforms in Murray, J. and Wisheart, J., (eds) *Teacher Education in Transition: the changing landscape across the UK*. London: The Higher Education Academy
- William, D., (23.2.1013) e mail correspondence following a lecture at Roedean School.
- William, D. (May 2011) Professional Learning Communities: a Powerful Way to Harness Teacher Expertise. *Learning and Teaching Update*, (44).
- Woods, P. (1983) *Sociology and the School: an interactionist viewpoint*. London: Routledge Kegan Paul.
- Yin, R., (1989) *Case Study Research: Design and Methods*. London Sage.
- Young, M., (1971) The Curriculum as Socially Organised Knowledge. In Young, M. (ed.) *Knowledge and Control: New Directions for the Sociology of Education*. London Collier MacMillan.
- Young, M., (2008) *Bringing Knowledge Back In: From Social Constructivism to Social Realism in the Sociology of Education*. New York, London: Routledge.
- Zeichner, K. and Liston, D. (1987) Teaching Student Teachers to Reflect. *Harvard Educational Review*, 57 (1), 23-48.

APPENDIX A: Interview Schedule

Early Stage: Students

What is your SS about and why have you chosen it?

How do you think it will improve your own teaching development?

What dialogue have you had so far regarding the SS with your mentor, other members of the geog dept or your professional tutor

What do you think they hope to benefit from your SS?

What have you found out about the school geog curriculum so far? What aspects seem to be in the process of development or change?

Early Stage: Mentors

Why have you suggested the SS topic? How easy was it to find an area of mutual interest with the trainee?

What guidance or input have you given so far?

In what ways are other members of the dept intending to get involved in this SS project? Have you discussed it with your PT?

How do you hope this SS will benefit the dept and school?

What aspects of the geography curriculum do you want to see developed and in what ways?

How do you think this will be achieved?

What role do you think your trainee might play in this process?

What do you see as the objective of teacher led classroom research?

Would you be interested in participating in your own classroom research project?

Early Stage: Professional Tutors

Do you know about the trainee's SS?

What are the current school improvement priorities?

What teachers are currently involved in classroom research? How does the school use teacher-involvement in classroom research to pursue its improvement priorities? How would you like to see this develop? What are the barriers to this? How might these be overcome?

Have you had any involvement or made any input in the SS so far?

How would you like to be involved? How do you think you could help the trainee?

How do you think the dept and school might benefit from this SS?

What role do you think trainees might play in departmental development and school improvement?

What do you see as the objective of teacher led classroom research? In what ways does the school encourage and support teachers to become research active?

Mid Stage: Students

How is the SS going?

In what ways have other members of the department provided support or been involved?

Are you aware of any other teachers in the dept/ school who are involved in their own classroom research?

What impact do you think your own SS process has had within the dept/ school?

Mid Stage: Mentors

How do you think the SS is going?

In what ways have you or other members of the department provided support or been involved?

Are you aware of any other teachers in the dept/ school who are involved in their own classroom research?

What impact do you think this SS process has had within the dept/ school? As well as practical activities, has it had any effect on the ethos or atmosphere of the department?

Are you aware of any other past SSs and what impact they may have had on the dept or school?

Mid Stage: Professional Tutors

How do you think the SS is going?

In what ways have you or other members of the department provided support or been involved?

What impact do you think this SS process has had within the dept/ school? As well as practical activities, has it had any effect on the ethos or atmosphere of the department?

Are you aware of any other past SSs and what impact they may have had on the dept or school?

Late Stage: All

In retrospect, what do you see as the main value to YOU of conducting your SS?

How do you think it benefitted the department?

To what extent do you think it contributed to departmental change and improvement?

What seemed to be the main obstacles to completing your SS?

How has doing the SS affected your attitude towards classroom research?

How interested would you be in continuing with other projects in your future career?**Are you aware of any other past SSs and what impact they have had on the dept or school?**

APPENDIX B: Sample of Interview Transcript

COLIN INTERVIEW LATE MARCH 2011 (e4)

How is the SS going?

OK. In terms of the research and writing it up I'm looking forward to having time off school to get cracking. In terms of the actually production in the school, I had a bit of a setback. My original plan was to use a yr9 group, and i planned lessons for last week and this week, 4 lessons contributing to that wall and I'd already told them 'this is your wall'. And then I found out last week the exam time table after Easter and I'm only seeing them a couple of times after Easter, so I'll miss out on 2/3 of my lessons with them, so I've had to change last week to condense everything so they've got everything they need to know for their exams. Hence why the lesson today was to make sure they can cover everything before their exams after Easter. So there wouldn't have been time in the lessons to have time doing creative things. Making things, sticking on the board. In 40 minutes(inaudible) ..when I've got to push through the content. So a bit of a panic. Fortunately i teach another yr9 group who are top set, so i decided to change my plan and use that group instead. Seems to have worked ok so far. They're higher ability so they're quicker and more productive in lessons. Which helped when they , made their rainforest models. I think it worked well. They enjoyed it. They didn't understand at first why they were making the posters and were a bit sluggish. But when the first group finished and told them to put it up on the board, suddenly the class perked up, 'so we get to put it on the board now?' and that's exactly what i wanted to happen and suddenly the pace of the lesson picked up and they were rushing to get it done and fighting to get the best spot on the board. Brilliant. I would have liked the whole of the display, the border and titles etc to be done by the students. I think the timing of the lesson and expecting them to do it in their own time, is quite limited so I've ended up having to do this myself. Fancy borders etc to jazz it up. In terms of the impact, it's been quite good because the students seemed to enjoy it and I've had comments from other student s relayed from other teachers asking what's going on. "what are they doing there?' and 'Why can't we get a display board?' in that sense it's quite fun.

In what way have other members of the dept been involved?

Obviously they've had to cooperate, allow me to use their rooms, to take down what was on Julie's wall originally, so that cooperation had been fantastic. I couldn't get some info myself, like I wanted photos of the students to put on the board and Vicky had to use her free time to

get them for me. She's quite busy a lot of the time. When she did that she was in her only free period so I am quite grateful. They've all been pretty supportive.

Have they given any advice? How to do a display?

Not really, the main thing is people are apprehensive about using displays. They tend to fall down or things like that so its advice like 'use a lot of bluetac' or 'you're going to have to stick it up every 5 minutes'. So there's a view of negative connotations to wall displays.

It will be interesting to see if that changes as the weeks go by.

Yeah. The whole idea is that the wall display is not just a static end product and I'm quite aware that by having an organic thing going I didn't want to seem as though I'm gloating or rubbing teachers' noses in it that they're not doing anything like that. So I don't want to seem as though I'm telling them what they're doing is wrong. And this is how wall displays should be. I think it's just for me to think about.

You might keep an eye and see if other people start adjusting their wall displays.

Yes. Already one of the teachers has already put up a few posters where there weren't before. Which is good.

Indeed, what impact do you think it has had on the school?

That's it. I know one teacher has thought maybe they should do something about wall displays. Are you aware of any other teachers in the dept being involved in their own classroom research?

Not in the dept. Other PGCE student. But no.

Are you aware of any past ss in the school?

No.

So no-one's said to you, 'oh when so and so was here they something g on...?'

It may have been mentioned but if it was it didn't grab me.

In your own opinion where does the SS sit in relation to teaching? Why do we make you do it: What's the point of it?

What I get from it, it's helped me to look at something that I wouldn't have looked at before. Things like wall displays...I'm not a creative person...so it's helped me to develop that. It encourages us to be reflective on our practice. An interesting way to look at different facets that interest us. Sometimes when the pressure gets on and I'm in a grump I think 'why am I having to do this?' I've got lesson planning to do Q standards to evidence ...and I can't see the end product will do the topic the justice that it deserves. I really enjoy this kinds of research and did the Curriculum Assignment , once I get on the ball I really get sparked up, but I couldn't help thinking then and now I wish I was a doing this when the workload was better in a couple of years' time. I'd rather be doing it at a different point

When you've found your feet...

Yeah. But then I wouldn't have the motivation to do that then if I hadn't been given this as a taster to get...it has encouraged me to think about doing this kind of thing.

Anything else you'd like to tell me about how it's going or how it's affected the dept.?

Last night I was working on the board, putting quite a lot of it together. It was quite barren before, and ...in fact the first time I put the banner at the top and the class teacher Julie said 'wow that looks good' but this morning once I put more pictures up and being added to, this morning Jim and Julie were both looking at the wall and talking about it. And it was quite nice seeing them taking more of an interest in their space. I hope they maybe appreciate their classrooms a bit more.

APPENDIX C: Sample of Manual Coding Analysis for Colin

Early	Mid	Late
Promoting geog	SS research has led to	Own professional
Environment for learning	classroom practice which is particularly motivating and stimulating for pupils	development
Pupil empowerment	Ripple effect impacts across other classes.	Impact on own ongoing practice.
Own professional development x2		
Pupil engagement	Direct practical impact of research –changes to classroom env of other teachers.	Ditto
Own professional dev		pupil ownership
Pupil engagement	SS has stimulated trainee's awareness of display benefits and his critique of other teachers who don't so this.	pupil ownership and engagement
Teacher as researcher valued		
Promoting geog dept	Impact. Other teacher reviewing and changing display	Again, my own research interest and impening visit serves to stimulate teacher action.
My ppt conclusions.ie impact is greater where no research		

or topic is currently under way. Trainee research impact greatest where there is no culture of research.	Value of research.	Impact, either direct thru inspiration or fear of negative judgement by me.
Critical of school practice.	The challenge of workload. Balancing research and teaching.	Evidence of staff chat and teacher pride in 'good practice'
Pupil empowerment.	Impact on attitudes of other teachers.	Use of displays for pupil ownership and validation
Build the geog dept.		No ongoing impact..
Pupil engagement		Practicalities of teaching vs innovation.
Build the geog dept. teacher empowerment.		Not v clear about embedding reflective TAR culture.
Critical of dept.		The power of surveillance and expectation of others to stimulate good practice.
Critical of school		
Awareness of pros and cons of TAR argument,		

APPENDIX D: Extracts from Ethical Clearance Application, February 2011

This research is for my Doctorate in Education (EdD) at the University of Sussex. It will explore the impact of teacher trainees on their second placement geography departments. In particular it will explore how the Sussex PGCE Special Study can stimulate curriculum development and improve classroom practice of all teachers in those departments by connecting them peripherally with the trainees' research; and whether the Special Study process can act as a catalyst for practicing teachers to become active teacher-as-researchers themselves.

The dissertation follows the philosophy established by Stenhouse, Elliott, Rudduck and others that teacher involvement in classroom-based action research is the key to school improvement. This philosophy began to take root in the 1980s and then lost favour for two decades. However it is now enjoying a resurgence in a number of Sussex partnership schools where teacher research is supported by leadership teams as the key strategy for working towards school improvement priorities.

I hope to monitor the Special Study journey of three PGCE Geography students and their mentors in three schools with different positions on the role of teacher research in school improvement. This will involve interviewing the students, mentors and their professional tutors at the beginning of the Special Study process (early March), towards the end (early April) and finally some weeks afterwards when a little distance will allow reflection on the impact of the process (late May). I am approaching you to ask if you will agree to participate.

Participating students will be interviewed by me for approximately half an hour at these three points in the year. Their submitted Special Study might also be used as a further source of data regarding the impact on the school department. They would also be asked to keep a brief research diary to log their thoughts during the Special Study process.

Participating mentors or professional tutors would be interviewed by me for approximately half an hour at these three points in the year. These interviews would be arranged at their convenience and in their school, ideally to coincide with one of my curriculum tutor or partnership co-ordinator visits.

All information collected will be kept strictly confidential (subject to legal limitations). In the collection, storage and publication of research material, the real name of the school, participants' real names will not be used and strict confidentiality will be followed. The research design will have been approved through the research ethics process of the School of Education and Social Work at the University of Sussex. The results of the research will be used in a study which counts towards my EdD.

APPENDIX E: Sample Information Sheet and Consent Form

Dear Professional Tutor,

How does the Special Study contribute to departmental development and school improvement?

I am currently planning my dissertation for my Doctorate in Education (EdD) at the University of Sussex. It will explore the impact of teacher trainees on their second placement geography departments. In particular it will explore how the Sussex PGCE Special Study can stimulate curriculum development and improve classroom practice of all teachers in those departments by connecting them peripherally with the trainees' research; and whether the Special Study process can act as a catalyst for practicing teachers to become active teacher-as-researchers themselves.

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As a participating professional tutor you would be interviewed by me for approximately half an hour at these three points in the year. These interviews would be arranged at your convenience and in your school, ideally to coincide with one of my curriculum tutor or partnership co-ordinator visits.

Participating students will be interviewed by me for approximately half an hour at these three points in the year. Their submitted Special Study might also be used as a further source of data regarding the impact on the school department. They will also be asked to keep a brief research diary to log your thoughts during the Special Study process. Geography mentors will also be asked to give half hour interviews during these visits.

All information collected will be kept strictly confidential (subject to legal limitations). In the collection, storage and publication of research material, the real name of the school, your real name and the real name of other participants will not be used and strict confidentiality will be followed.

The research design will have been approved through the research ethics process of the School of Education and Social Work at the University of Sussex. The results of the research will be used in a study which counts towards my EdD.

It is up to you to decide whether you will take part in this research. Whether you do or not will have no impact on your involvement, current or future with mentoring for the University of Sussex. If you do agree to take part, please sign the consent form below. You are free to withdraw this permission at any time and without giving a reason.

Robert Rosenthal

CONSENT FORM

I (name) _____ consent to take part in the research study as described above. I understand that information deriving from these activities will be used for research purposes.

I understand that my participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw my permission at any stage of the project without being penalised or disadvantaged in any way.

I consent to the processing of my personal information for the purposes of this study. I understand that such information will be treated as strictly confidential and handled in accordance with the Data Protection Act 1998

Signed : _____ Date _____

Please Print:

Name _____

APPENDIX F: Copy of Figure 3.2 for easy reference: The Respondents, their Schools and the Special Study Research Titles

Student	School	Mentor	Professional Tutor	Special Study topic	Research Culture
Daisy	Bentham	Hugh	Brian	What geography do pupils want to learn at KS3?	No teacher research culture
Colin	Aldley	Vicky	Wendy	The use of poster displays as a vehicle for learning activities	Sympathetic but not attempted
Ali	Caxton	Karen	Naomi	The place of locational knowledge in the Geography Curriculum	Active P /TLC