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A Case Study of the Meanings and Values of Educational Research
for Participants in a Shanghai Primary School and a Yorkshire
Primary School

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Abstract

This is a case study of teaching practitioners in two school settings, one in Shanghai and the other in the Yorkshire region of England. Its focus is on their views and values regarding the use of educational research in relation to their own practice and how their social practices as well as cultural orientations influence their use of different kinds of knowledge. The research problem addressed is the one identified in the 1990s' policy debate about why much educational research does not seem to be directly helping teachers in improving their practice. Although the situation might have changed more recently with the greater development of evidence-based practice and some teachers' active engagement in research, how practitioners make research meaningful to them remains unclear. This study aims to clarify how these teachers regard the idea of research-informed practice. The principal method of data collection was semi-structured interviewing. Other methods were used only to support the validity of interpretations in the analysis of interview data. This analysis shows that with respect to published research produced elsewhere and to their own research activities, the use, if any, that these practitioners make of research is likely to depend on whether they can appropriately recontextualize it according to the professional knowledge they value in their own networks or communities of practice. That process of recontextualization is one with which they are familiar from their social practice of transforming explicit codified knowledge embedded in curriculum documents, textbooks and other context-independent learning resources into pedagogic activities according to their tacit experiential understanding of what works in their particular situation. The high value placed on tacit situated knowledge as an essential component of professional knowledge and development is maintained when these practitioners extend recontextualization to research knowledge and evidence. It is present in the sense of agency and professional identity that is a priority for practitioners in each setting, although the respective cultural orientations towards it are different. A relational model is developed from the case study findings, with implications for revising the aims of educational research towards working with teachers to understand better their recontextualizing practice rather than seeking transferable prescriptions of pedagogy as a technical instrument.

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Chapter One: Introduction

1.1 Impetus for the study

This thesis presents a two-case study of approaches to the use of educational research by professional practitioners in a Shanghai primary school and one in the north of England. The case setting in Shanghai, China, is centred on a group of teachers of English language, and it is the main case for this study. The secondary (though not analytically lesser) case, set in an English primary school that is also a teaching school, is centred on a group of teachers with research responsibilities as part of their professional role. This research study has been undertaken at a time when politicians and policy-makers are urging educators to learn from the pedagogical practices of societies very different from their own. This is a period when teachers in English schools are being asked to look at how schools in Shanghai and other leading East Asian education systems achieve high-performing results, while teachers in those Asian societies are being asked to look to Western education and research for how to develop children's creativity. Here in this thesis is a case study exploring what two groups of teachers in those different cultures actually do hold in common and what it means for those in each setting to place their ways of knowing at the service of their pupils' learning development needs.

Whether they are in the Shanghai region of China or the Yorkshire region of England, teachers in each setting face daily the task of bringing together diverse forms of knowledge and integrating them into a meaningful social practice. One of those forms is knowledge derived from research, their own or other people's. From my own experience as a teacher in a Shanghai school and from talking with other

teachers of English in that and other Shanghai schools, I was puzzled whenever that form of knowledge was characterized by those who were not my professional colleagues as either useful or useless. The teachers I knew accepted that it falls to them not to follow blindly the ideas and proposals expressed in research outcomes and knowledge, nor to reject them out of hand, but to work with and on those ideas. They accepted this responsibility because they saw it as part of what it means to be a professional teaching-practitioner, to do the actual work with those ideas.

That work is part of pedagogy, understood as something more than a merely technical instrument. If, as Alexander defined it simply in reporting his cross-cultural educational research study, ‘Teaching, in any setting, is the act of using method x to enable pupils to learn y ’ (Alexander, 2001:323), then pedagogy

contains both teaching as defined ... and its contingent discourses about the character of culture, the purposes of education, the nature of childhood and learning and the structure of knowledge. (Alexander, 2001:551).

To set aside the content of those ‘contingent discourses’ as contextual factors or background conditions, within which the act of teaching takes place, would seem to be pushing into the margins the very things that research knowledge brings to the fore whenever one considers how it might inform that teaching act’s use of ‘method x ’. It renders problematic the apparently straightforward notion of ‘method’. As Alexander further points out: —

For all that in teacher training programmes ‘method’ has common currency, in the U.K. it is rarely explicated ... We need to unpack it a little, if it is to be useful as an analytical category which is able to cross the boundaries of context and culture. (Alexander, 2001:323)

Such boundary-crossing seemed to me to be a fundamental pre-requisite for understanding how research knowledge enters pedagogy in Alexander's wider sense of this term. Accordingly, the impetus for this research study was the need to do a little of that unpacking of the notion of 'method' with respect to teachers' engagement with educational research. Only by crossing certain 'boundaries of context and culture' does it seem possible to begin to explain that engagement as a process that is much more than a simple acceptance or rejection. Recognizing teachers' own views on the matter entails trying to get beyond what might appear to be a false dichotomy of useful research and useless research, or of using research and of not using research. So this study, of what teachers actually regard themselves as doing with research, does indeed seek to go beyond that dichotomy, to cross boundaries of context and culture, not least because 'a culture does not stop at the school gates' (Alexander, 2001:29-30). Teachers do not work in a social vacuum. The valuing of different kinds of knowledge found in a culture, even the validating of what constitutes knowledge in the first place, is not something which is confined to the school environment. How the teachers in this study bring forward in their own practice the cultural orientation towards certain kinds of knowledge is part of this. Therefore there is itself a value in seeing how, between the two settings of this case study, the teachers in each one talk about their experiences of using or rather of inhabiting different ways of knowing, for the benefit of the children in their charge.

The interest here is in how teachers might deal with the forms of knowledge they are presented with before walking through that classroom door; how they might make sense of knowing what knowledge and evidence to bring with them; and knowing

how to do so. But is this familiar contrast between those two ways of knowing, ‘knowing that’ and ‘knowing how’, the best way of thinking about those ways? Perhaps other kinds of contrast in the diverse forms of knowledge might enable research into the researching activities of ethically committed educational practitioners to suggest a more productive way forward.

1.2 Aims of this research study

This study is exploratory not confirmatory. Its aim has been to find out more about how two groups of teachers regard educational research and approach its use, with respect both to their own research activities and to research published elsewhere. In a 2005 review of practitioners’ use of research, Rickinson stated:

Until recently, little was known about the nature and dynamics of research utilisation amongst education practitioners. The small number of studies that have now been undertaken suggest that the process is more complex than some might have assumed. Practitioners seem to use research in ways that are active, selective and variable, and the process can be both values-rich and rewarding. (Rickinson, 2005:4)

The research reported here is intended to make a contribution to the growing number of studies exploring those dynamics, with particular reference to understanding more about that ‘values-rich’ process from practitioners’ point of view. It was beyond the scope of a doctoral research project to explore fully what these teachers actually do in researching, as this would have required extensive field-work and access to many areas of their practice in an ethnographic study. This was not feasible within the time and other resources available, though some ethnographic observation techniques were used in the Shanghai setting for gathering data to build a fuller case study picture that would help with the interpretation of interview data. So, for this

exploratory aim a case study methodology was adopted. The observation data were collected solely for the purpose of obtaining a better understanding of the main case setting, which in aiding the interpretation of the interview data might enhance the validity of that interpretation.

It has been borne in mind throughout the study that there may well be a gap between what practitioners say they do and what they actually do, and this study can only make claims about the former not the latter. The focus on what the teachers say has had the benefit of giving a voice to practitioners in a debate which, as the literature review will show, has been dominated by policy-makers and academics. While it is not the intention of this study to make policy proposals, nor to provide a directly practical aid to teachers in using research, it is hoped that the findings will have some value in contributing to a better understanding of why some approaches might be less successful than others, and adding to the argument that practitioners' views and positions should be taken into account in any future policy proposals. Hence the concluding chapter will provide some discussion of the implications of this study for the future direction of educational research with respect to this matter.

The other important point to note is that although this is an exploratory study there are some definite conclusions to be drawn from it, and it does not shrink from developing a provisional model of how these practitioners say they process research, together with a tentative theoretical formulation of what such a model might suggest. The validity of that model and the associated theoretical statement is obviously limited to the case settings studied, and it would be for others to see if that validity might be extended to other settings. As with any case study, however, the presentation and discussion of its findings are intended to make it possible for others

reading this thesis to evaluate whether those findings might be transferable to settings of interest to them. Indeed, it is part of the overall argument of this thesis that only other educational practitioners are in a position to make that judgement. It is not one of the aims of this study to make the judgement for them, because to do so would be not to take their views and interests into account. This in turn would contradict the main aim of this study, to find out how practitioners' regard research and its findings. So the model derived from this study is intended to provide a tentative framework for future dialogue and research, not to claim a definitive answer to the problem of how the social practices of teaching can become more research-informed.

At their best, educational researchers are artists or perhaps engineers and not technicians, putting to their audiences only the simple suggestion, suppose you look at it like this, leaving the reader to draw their conclusions in respect of their own context.
(Dowling, 2010:1)

A second aim of this research was to conduct a small-scale case study with two settings. It is small-scale for the same reasons of feasibility as given above for the first aim. Each setting is a school, but this is not a whole-school case study. Each case is a group of practitioners who in one way or another are involved in working together in that setting. In the Shanghai setting, the group includes all of the members of a subject-specialist teaching team, though it also includes a City Inspector and a District Inspector as well as a school leader. What brings them together is a common pedagogic domain, the teaching of English language to pupils in that school. In the English setting, the group includes a headteacher from another school that is part of the same collaborative network. What brings them together is membership of that network of schools but the participants are only a selection of

that membership. The basis for the selection will be discussed in the methodology chapter of this thesis.

A third aim derives from the study's initial impetus and concerns cultural orientations to different kinds of knowledge. In the 1990s and at broadly the same time as the debate about the usefulness of educational research was begun anew, there was also renewed interest in knowledge that is situated and dependent on the context in which it is used. From the work of Jean Lave and Etienne Wenger on how apprentices acquire knowledge of their craft 'on the job', which led to their theory of situated learning (Lave and Wenger, 1991); to that of Brown and Duguid (1991; 2000) on contextual knowledge and organizational learning; and to the studies by Nonaka and Takeuchi (1995) on how knowledge is created in Japanese companies, there developed a fresh critique of forms of rational knowledge that are seen to set aside the setting from which they arise rather than seeing the context as crucial in giving such situated knowledge a social value. For the education profession, the critique had been re-ignited a decade earlier with the publication of Schön's work, *The Reflective Practitioner* (1983), which presented a justification for the value of professional knowledge that only those professional practitioners were regarded as possessing. The two debates then came briefly together at the end of the 1990s with Hargreaves (1999) arguing for 'the knowledge-creating school' as a way of re-organizing and reconceptualising educational research.

An interest in context-dependent knowledge might be thought to imply a corresponding interest in comparing and contrasting the culturally specific values embedded in different contexts, though as Alexander (2001:40) pointed out, the academic study of comparative education 'risks abstraction and marginalization'. As

explained in section 1.4 of this introduction, the research presented in this thesis has not aimed to conduct a fully cross-cultural comparative study. What it has sought to do, however, is to consider how the research participants' orientations to different kinds of knowledge, and the values ascribed to those kinds, may be related to cultural differences in valuing various ways of knowing. As Masemann (2007:104) argued:

values are not the individual psychological attitudes of an individual but socially structured orientations patterned in relation to the strictures of the society in which people played out their roles.

To this limited extent, some cultural comparison of orientations to knowledge has been sought. 'Education positively requires, and positively benefits from, a comparative imagination and comparative understanding' (Alexander, 2001:27).

1.3 The research questions

The research aims were developed partly from my own professional experience (see section 1.1); from reading about the debates in both China and England over how to render educational research more useful and meaningful to teachers; by conducting a thorough literature search and review on this problem; and by considering what possible and feasible research designs might be available to enable those aims to be achieved. These aims were gradually revised as each of these sources were worked through in an iterative manner. Bryman (2008:69-74) discusses a strategy for developing broad research aims and then reformulating them as specific research questions that can then guide the research design, implementation and evaluation. Throughout the process of using this strategy, briefly summarised as (1) identifying a research area (the use of research for and by teaching practitioners); (2) selecting an aspect of that area (the meanings and values practitioners themselves attribute to

research); and (3) formulating aims and questions on the basis of theory, personal experience and/or existing research literature; draft questions were progressively developed and amended until, taking into account the practicalities of doing a doctoral research project, the following three questions were decided as the most appropriate for addressing that initial problem: —

- (1) what kinds of meanings and values do school teachers attribute to the use of educational research in relation to their own practice?
- (2) how do social practices contribute to the use of research as perceived by practitioners?
- (3) what does the available literature indicate about the meanings and values attributed to educational research in relation to school practices, particularly in England and the Shanghai region of China?

A further, subsidiary question is:

- (4) do variations in teachers' social practices reveal any cultural orientations to different kinds of knowledge?

The first question places the focus of this study firmly on an interpretive approach. It requires the collection of verbal data as the basis for making inferences about participants' meanings and the evaluative judgements. By specifying the relation to practice it points to something other than an eliciting of attitudes, and anchors the study in finding out how participants say they make use of research, if they do. It also emphasizes that practice is a social relation not just an individual activity.

The second question looks at the same issue from the other side. The first question leads to a consideration of how participants' meanings affect how research is seen to

relate to practice. The second one leads to a consideration of how practice, particularly its social organization, is regarded by participants as enabling or hindering how they use research.

The third question makes explicit the importance of the debates about educational research in the existing literature for both the provenance of this research study's aims and for understanding the changing policies and practices in England and China over the last twenty years in response to those debates.

The fourth question acknowledges the cultural dimension of that same issue, in so far as using research entails using knowledge and engaging in ways of knowing. It also presupposes that the concept of knowledge is itself heterogeneous and that it is appropriate to conceive of it as existing in different forms.

All four questions are predicated on an assumption that participants are not merely dismissing educational research as having no relevance to their practice. For the participants invited to be part of this study, it is a reasonable assumption because all have research activity as a formal component of their professional roles. It is not an assumption that could be expected to encompass the situation of all Primary school teachers in either region or country, though since 2011 in England the *Teachers Standards* have included a requirement for all teachers 'to promote the value of scholarship' (Great Britain, Department of Education, 2011). Whether that standards specification should be interpreted as a demand for teachers to engage in research activity is debatable, not least because research is not exactly the same thing as scholarship. So it would be unwise to regard the participants in these two case-study settings as typical of Primary school practitioners as a whole. The teachers in each setting are expected to engage in research activities, so they may well be more

positively disposed towards educational research than professional colleagues in other circumstances. This will be taken into account in the discussion of the research study findings and in any inferences made from them.

1.4 Overview of the thesis structure

The research questions inform each of the succeeding chapters of this thesis and the structure of the whole. In order to situate those questions in relation to existing research in this area, chapter two will review the literature concerning the problem of educational research being regarded as not sufficiently useful for practitioners, and go on to review and evaluate critically the four main solutions proposed in the debates about this problem which, it is argued, can be conceptualized as a problem of professional knowledge, of what it is and how it should be created. As those debates show, professional knowledge is itself a concept referring to the integration of other kinds of knowledge, and how that integration occurs is a process involving the different values placed on those other kinds, by practitioners and others with a stake in education systems. Values are a key component of professional identity, and there will be a brief review of this in relation to the influential concept of the teacher as a reflective practitioner, which underpins teacher's sense of agency, and to the concept of social practice where that agency is exercised. Both of these concepts are central to this study's research questions. Social practice has been reconceptualised by the growing research literature on professional collaborative networks and communities of practice, or more specifically learning communities. The implications of this for the research questions and the research design will therefore be considered at the end of this second chapter, together with the concept of recontextualization. This latter concept was developed by Bernstein (1990; 2000) as part of his theory of pedagogy

and the transformation of knowledge in educational discourse and practice. It will be argued that this relatively neglected concept, suitably modified from Bernstein's usage and taking account of Dowling's (1998; 2008) use of it in his analysis of mathematics education, can provide a way of understanding what teaching practitioners say they are doing when they making research meaningful for them.

Why this concept might have explanatory power in answering this study's research questions is something that can only be justified by an appropriate research design enabling the collection of relevant data, which in turn can be analysed in order to derive the study's findings. Accordingly, the third chapter of this thesis will set out that research design and provide a rationale for it and the methodology it embodies. That chapter also includes a specification and rationale for the data collection methods used to implement that methodology.

The research design conforms to a multiple-case study approach, and the structure for the remainder of this thesis aligns with the linear-analytic structure of a case study report within the overall thesis structure. 'This is a standard approach for research reports' (Yin, 2014:188) that incorporate a case study. Accordingly, Chapter Four presents an outline of the two case settings and the characteristics of those settings relevant to understanding the context of the data collected and subsequently analysed. Chapter Five will begin by presenting the data analysis and findings, structured in terms of the top-level conceptual nodes derived from the coding used in the inductive thematic analysis of the interview data collected. The following Chapter Six will discuss these findings with respect to the research questions, leading to the development of a relational model that indicates a proposed analytic generalization (Yin, 2014:42) from the data analysis. A final chapter, being also a

conclusion to the whole thesis, will consider the implications and limitations of the case study and the relational model for the initial research problem, and for a possible future research direction.

As well as a linear-analytic structure being a good fit with doctoral thesis requirements, it is also chosen over other possible structures because it is the most appropriate one for reporting on the implementation of the research design adopted as the best way of meeting the research aims and addressing the associated research questions. Although the discussion of findings in Chapter Six will lead to the presentation of an analytic generalization from the case study findings, it is not the aim of this study to build a comprehensive theory, so a theory-building structure (Yin, 2014:189) would be inappropriate. Similarly, there is some comparison of the data from the English and Shanghai settings respectively, but as will be explained more fully in the methodology chapter the intention is not to engage in a full-scale comparative study. Moreover, the focus is on the Shanghai setting as the primary case in this multiple-case study, with the English setting being used to enable some consideration of cultural and situational contexts as an influence upon research participants' practice. A full cross-cultural comparison, giving equal weight to both settings, would need to establish that the settings and the school situations were indeed comparable, and that would at least require the collection and analysis of more ethnographic data over a much longer period than would be feasible for a study of this scope, at the end of which comparability might still not be established. So a comparative structure would also not be appropriate.

Of the other two structures discussed by Yin (2014:189-190), a chronological structure would also require more time for data collection in order to produce an analytic narrative that did not run the risk of being merely descriptive, and a suspense structure is, as Yin states, more appropriate to an explanatory case study whereas this one is largely exploratory, even though explanation will not be ignored.

Further, this linear-analytic structure will present the results of the data analysis and then discuss those results in terms of a proposed relational model and its degree of adequacy to the data, but because this is an exploratory case study the two aspects — findings and discussion of them — cannot be kept strictly distinct. The thesis convention of presenting findings in one chapter and a discussion of these findings in a separate chapter implies a view of data collection and analysis that presupposes a conception of data as entities with an objective existence as facts independent of any interpretation of them, which methodologically and epistemologically is not the position adopted by this research study. That position will be considered in detail in the methodology chapter below, though it is worth reiterating here that the status of qualitative data is a longstanding issue in educational and social science research that shows no sign at present of being resolved adequately in favour of one position or another. All that can be done here, in order to maintain the focus and integrity of this study, is to concur with what Ian Dey explained many years ago: —

Like the phrase ‘data collection’, the term ‘findings’ is really grossly misleading, with its implication that we have only ‘found’ what was already in the data waiting to be discovered... Our ‘facts’ are produced through our conceptualizations... Even in summarizing briefly the main points of our analysis, we should be wary of simply reporting a series of conclusions as ‘facts’.
(Dey, 1993:242)

The distinction between this ‘findings’ chapter and the ‘discussion of findings’ chapter that follows should not be regarded as a presentation of the facts, or more precisely factual results, followed by a separate discussion of those facts. That is, the conformity with a thesis convention of separate chapters should not be regarded as endorsing a false distinction between factual results without interpretation followed by an interpretation of those results. Indeed, to attempt to do this would be to act without good reason against the prevailing consensus in qualitative research, as expressed by Boeje: —

Authors cannot and should not limit themselves to the presentation of the data in the results section and withhold their interpretation.
(Boeje, 2010:196)

Why should they not do this or, rather, why is it not possible to do this? Bazeley provides a convincing reason:

In so far as choices are made about what to include in a description, what to leave out, how to value different sources, and how to present material, all description is interpretive.
(Bazeley, 2013:378)

So, what is the substantive distinction between the findings chapter and the one following it, if it is not based on a spurious one of ‘facts without interpretation’ on the one hand and ‘interpretation of the facts’ on the other? The contention here is that each chapter has a different purpose. The findings chapter, Chapter Five, seeks to answer the question: **what** has been found to emerge from a systematic qualitative analysis of the data? The following chapter, Chapter Six, seeks to answer the related question: **why** are these findings relevant and important for addressing this study’s research questions? In drawing conclusions about likely answers to those research

questions, the significance and adequacy of those findings will then necessarily be considered.

Chapter Two: Conceptualisation and Literature Review

2.1 Introduction

This chapter presents the results of the literature review conducted in the initial phases of this research study, in order to finalize the research questions in relation to existing research literature. The chapter also incorporates a discussion and evaluation of the key concepts that were developed in these initial phases in order to identify a provisional framework within which the research design could proceed. It should be noted that because the aims of this research study were derived in the first instance from existing literature on the usefulness of educational research, the concepts evoked in that literature were necessarily those that have been considered from the beginning of the whole project. That is, the conceptual framework for this study was not derived wholly from the data collected, as might be the case for some forms of qualitative research, particularly those associated with grounded theory. However, in the course of data collection and analysis, one concept in particular was derived from this process rather than from those debates in the literature. Hence this concept, of recontextualization, will be introduced briefly in this chapter for the purpose of completeness, but it will only be developed and discussed in detail in Chapter Six, after the data analysis findings have been presented.

As discussed in section 1.3 of the general introduction to this thesis, the three main research questions are as follows. The first one is: what kinds of meaning and values do school teachers attribute to the use of educational research in relation to their own practice? The second, related question is: how do social practices contribute to the

use of research as perceived by practitioners? The third question is: What does the available literature indicate about the meanings and values attributed to educational research in relation to school practices, particularly in England and the Shanghai region of China? A further, subsidiary, fourth question is: do variations in teachers' social practices reveal any cultural orientations to different kinds of knowledge?

Implicit in the first two questions is that there is a continuing separation of educational research and the practice of teaching. A further implication is that this separation continues because there is a separation between researchers and school practitioners, or between research communities and communities of teacher practitioners. It is a separation that was described by Carr and Kemmis as being:

institutionalized in a division of labour between “theorists” and “practitioners”... The epistemological separation of educational theory from educational practice has its social counterpart in the separation of educational researchers and policy-makers on the one hand from educational practitioners on the other
(Carr and Kemmis, 1986:216).

This separation is seen as producing too big a gap for educational research to be effective in improving practice. This also suggests that educational research is an undertaking whose purpose is derived from its utility for practice and practitioners.

So the first concern of this literature review, in developing a conceptualisation of this research study, is to evaluate the current debate about the purpose or purposes of educational research. Following this, there is a need to evaluate critically the various proposals in the relevant literature for enabling research to achieve a purpose related to its usefulness for practice. In these evaluations each of the existing ways forward will be considered for their adequacy in enhancing the utility of research, and the probable reasons for their degree of adequacy. These reasons suggest in turn that

difficulties with the practical utility of educational research are related to how different forms of knowledge are conceptualised in the literature addressing this problem. This will lead to particular methodological considerations concerning forms of knowledge in the research study design.

2.2 Conceptions of educational research and value

2.2.1 What is the main purpose of educational research?

In the first instance, this question might be thought to be pointing towards the usefulness of systematic enquiry in order to improve educational practice and to inform policy development. To the extent that the concept of education can be seen to involve social practices and experiences that organize learning, educational research surely ought to be concerned with aiding those processes; that is, it would seem to be necessarily applied research, rather being purely concerned with understanding the world just for the sake of doing so. Hence Pring (2004:13) states that, 'Educational research, therefore, must focus upon learning'. It would be expected, then, that with this focus the matter of deciding the usefulness of educational research would be to measure its impact on educational practice and policy development, in so far as policy would also aim to enhance that practice.

Yet this is not as self-evident as it seems. Pring (2004:4) cites the Hillage Report (1998:45-46), which in turn referred to the work in the U.S.A. of Kennedy (1997), and the assertion that research has failed to have an impact on practice for four reasons:

its seeming irrelevance to practice, its poor quality as compared with research in other fields ... its inaccessibility, and the incapacity of the educational system itself to think and make decisions on the basis of research.

The Hillage Report suggests that there are also ‘further structural factors’ in the U.K. that make matters worse: ‘a perceived lack of need, and a weak interface between the education and research communities, particularly at the policy-making level’ (1998:46). The implication is that neither teachers nor researchers see the need for research-informed practice, and that the structural problem is not with the separation of academic and practitioner communities but with the relationship between them. If this is the case, then either academic educational researchers are especially incompetent at communicating their research results or they carry out research for purposes that are not necessarily aimed at helping practitioners and policy makers directly. There could, however, be two other causes: the lack of a straightforward consensus about how to proceed with educational research; and the relationship between how educational theory is conceptualized and how it is practised. These two other causes may well be connected. On the one hand, in the field of research, there appears to be an enduring split between what Pring (2004:44) calls the ‘false dualism’ of quantitative and qualitative approaches, with adherents on each side of this dualism reluctant to grant any validity to research conducted by those on the other side of it. This in itself casts doubt on the whole educational research enterprise, when viewed from the perspective of practitioners or politicians, who might only perceive obscure methodological squabbles in place of helpful advice about ‘what works’; see, for example, Slavin (2008). On the other hand, this same ‘false dualism’ can be related to disputes over positivist versus postmodernist conceptions of the reality being researched into. For instance, Evans (2002:62)

declares that what the educational researcher needs to do ‘is [to] consider which of the main concepts within your research focus are potentially ambiguous or susceptible to being interpreted differently by different people’. When the conception of education itself is potentially susceptible in this way, then there would seem to be little prospect of recommendations for practice. So the purpose of educational research is itself contested.

2.2.2 Different conceptions of educational research in relation to educational value and teacher engagement

If the purpose of educational research is contested, it is not just because the values associated with these purposes are contested, it is also that the question of value, and whether educational research should even be concerned with it, is a matter of debate. Why should this be so? It seems that the meaning of educational research as an activity or social entity is problematic (Leat et al., 2015:270). At the most general conceptual level it might be possible to identify what educational research involves (see Stenhouse, 1981:113), but in terms of actual processes and procedures there are clearly different kinds of such research, and these differences may well be so great that it is difficult to refer to educational research as a homogeneous phenomenon, regardless of a conceptual definition.

What is so striking about contemporary educational research is that there is no single definition of what it is that can command anything remotely resembling universal assent. Although educational researchers often behave as if they belong to a single intellectual community, the sad truth is that educational research now embraces so many traditions, paradigms, theoretical perspectives, methodological frameworks and academic disciplines that it cannot claim to meet even the most minimal criteria of

homogeneity that any notion of a ‘research community’ presupposes and requires. (Carr, 2007: 273-274)

Hence it is necessary both to acknowledge the heterogeneity of educational research and to indicate the particular meaning of research that informs the design and implementation of the study reported in this thesis. That indication will be set out in Chapter Three. The differences over the purposes of educational research, and how these differences have led to a divergence of approaches, have been discussed briefly (section 2.2.1). How these have also led to disagreements over the relationship of theory to practice will be discussed in the sub-section following this (2.2.3). Yet the differences giving rise to research heterogeneity are not restricted to purposes. In the above quotation, Carr has listed some of the other elements, while Pring (2004:33-43) provided an overview of the main theoretical frameworks and methodologies. Additional elements that may diverge concern the kinds of knowledge produced, the sources of that knowledge, the participants in the research activity, and the ethical values and principles underpinning all of these. There are close relationships between the various elements, though, and the main distinctions used to differentiate kinds of educational research are centred on (a) whether or not teachers participate directly in data-generating research activity (Gewirtz et al., 2009:580) and (b) whether or not research is undertaken in order to establish the most efficient pedagogic means of achieving pre-specified educational ends (Pring, 2004:29; Elliott, 2001, 2015). Whether or not this distinction is regarded as important seems to depend on the conception of educational research employed; hence this section’s focus on that relationship, as well as on the significant conceptions themselves.

With respect to teachers' participation as the first way of conceptualizing educational research, Leat et al. (2015:271) make a distinction between engaging with research and engaging in it. The former implies a focus on practitioners making use of research knowledge and findings produced elsewhere rather than in their own professional situation. 'In the distinction between engaging with and engaging in research there is a sense that *in* implies a greater degree of immersion' (ibid.). Engaging in research not only involves the learning and use of research skills but also can lead to 'significant development in identity and the self, with repercussions for the teacher's personal agency' (Leat et al., 2015:272). Note that this contrast is identifying research knowledge on the basis of the contrasting sources of that knowledge rather than on anything intrinsic to the knowledge itself.

This distinction seems to be less important to the authors of the joint inquiry published in 2014 by the British Educational Research Association and the Royal Society of Arts (BERA-RSA) into the role of research in teacher education. In the inquiry's final report, the appendix on 'terminology' provides a broad definition of educational research, with indicative examples that encompass engagement both with and in it, though none suggests a high degree of engagement in research activity where teachers' agency would be a key feature.

By research, the report's authors mean any *deliberate* investigation that is carried out with a view to learning more about a particular educational issue. This might take a variety of forms and be concerned with a range of issues, for example: the secondary analysis of published data on school exclusions, interviewing a range of colleagues about examination performance in the English Department, taking part in a national Randomized Control Trial concerned with the teaching of Mathematics, responding to a

survey about teachers' use of the internet to inform curriculum planning, working with a university department of education on a study into teachers' use of new technology.
(BERA-RSA, 2014:40)

This definition has echoes of the one proposed by Stenhouse (1981), whose work was seminal in promoting the idea of teacher as researcher, but Stenhouse's reference to self-criticality is absent. This element could be regarded as crucial if research of any kind is to act as an enabler of professional development and thereby form an essential component of the teacher as reflective practitioner.

Research, I have suggested, is systematic and sustained inquiry, planned and self-critical, which is subjected to public criticism and to empirical tests where these are appropriate... Research is educational to the extent that it can be related to the practice of education. (Stenhouse, 1981:113)

The subtle change in definition between Stenhouse's conception and that endorsed by the BERA-RSA points to the second main distinction that distinguishes varieties of research: the implied relationship between pedagogic means and educational ends or outcomes.

In his contribution to the debate about the relevance and effectiveness of educational research, Elliott (2001) argued that Hargreaves' (1996) conception of evidence-based practice in education ignored or was even opposed to the insights originally developed by Stenhouse (1975). He argued against an outcomes-based model of the curriculum except in the limited area of developing mastery of a particular skill and instruction in the knowledge associated with that skill. In contrast, he argued that both practitioners and policy makers, should be concerned with an educational process rather than with outcomes as the driving force in curriculum planning and implementation. This process should instead be driven by values and principles that

make education worthwhile as a social and cultural activity. Accordingly, Elliott endorses Stenhouse's view of the role of teachers with respect to educational research, summarized in Stenhouse's statement in his consideration of 'what counts as research' that 'using research means doing research' (Stenhouse, 1981:110). The implication of this is that from the point of view of educational practice there is no fundamental distinction between making use of research knowledge that has been produced elsewhere and developing research knowledge in the context and situation of that practice.

From a practitioner's perspective research knowledge in the form of findings requires 'situational verification' (Stenhouse, 1981:110). What this entails is typically described by Cordingley (2008) as teachers either transforming research knowledge or integrating it with other forms of knowledge.

[T]he process of transforming knowledge from research into practice involves a complex mix of activities relating both to the media that carry the knowledge and the learning and development processes through which knowledge is acquired, understood, interpreted and enacted. (Cordingley, 2008:47)

Although Cordingley goes on to describe the development of the National Framework for Mentoring and Coaching that supports this transformative process, the 'complex mix of activities' remains unanalysed and the 'learning and development processes' are mainly discussed in terms of how individuals might access continuing professional development (CPD) and be supported by it.

Transformation of knowledge from research for impact seems to need to be constructed as a process of supporting and informing professional learning. (Cordingley, 2008:46)

This may be the case, though the question of what research knowledge is transformed into or what precisely characterises the transformation process is insufficiently addressed. Furthermore, the focus is on what teaching professionals might learn from research conducted elsewhere, that is, on the content of that explicit knowledge, rather than on what those professionals might bring to the research knowledge in order to make it usable in their context.

Such professional learning is conceived not as a question of communicating knowledge but as a question of orienting knowledge from one sphere so that it can be organised and framed in another – to support specific learning needs for target groups of students and their teachers. (Cordingley, 2008:46)

What exactly this ‘orienting’ activity consists of, and whether it is the same as changing context-independent explicit knowledge into context-dependent professional knowledge, is not explained by Cordingley because ‘the process of transforming knowledge from research into practice’ (Cordingley, 2008:47) becomes, two paragraphs later, something that could only be considered as part of a ‘framework’ for ‘supporting the transformation of knowledge about CPD into practice’ (ibid.). In this paper Cordingley makes it clear that her concern is with an individual teacher’s professional development (Cordingley, 2008:46). ‘But in understanding the transformation context it is also important to focus on the nature of the knowledge and the form it takes’ (ibid.). One can agree that this is indeed important and at the same time note that this is not Cordingley’s focus.

Her work is associated with the reports and systematic reviews of research in this area conducted by the *Centre for the Use of Research and Evidence in Education*

(CUREE) and the *Evidence for Policy and Practice Information and Co-ordinating Centre* (EPPI-Centre), often jointly, as well as (up to 2006) with *The Innovation Unit* (Powerbase, 2016; Innovation Unit [no date]) and the British Government's *Department for Children, Schools and Families* (now the *Department for Education*). Most of this work has focused on practitioner use of research in relation to Continuing Professional Development (CPD) and Continuing Professional Development and Learning (CPDL). (See Cordingley et al., 2003; Cordingley et al., 2007; Bell et al., 2010). Cordingley (2015) summarises and reviews these developments and similar reviews. What they establish is a two-dimensional view of educational research.

The first dimension concerns the distinction between teachers' engagement in or engagement with research. The criteria for this distinction are stated in Bell et al. (2010:28):

If practitioners are engaging in research they will:

- address themselves to a research question;
- use instruments which enable them to explore both adverse and positive outcomes;
- and contribute to the analysis and reporting.

These are methodological rather than epistemological criteria. They preclude consideration of different kinds of knowledge and how they might be integrated by teachers to inform their practice. It is not clear what constitutes engagement *with* research, as the mere absence of those criteria would hardly seem to be sufficient for identifying it, particularly if practitioners are fully involved in all aspects of a research project except the writing-up for publication (Bell et al., 2010:29). The implication is that the source of the research knowledge is the actual distinction

being drawn, with the additional specification of knowledge generated by teachers themselves required to be generated by means of adherence to those methodological criteria.

The second dimension rests on the distinction between whether the research activity is 'teacher-led' or 'researcher-led' (Bell et al., 2010:29). The emphasis on leadership rather than on research locus or purpose accords with the corresponding emphasis throughout the systematic reviews on the importance of collaboration, though the 'teacher' or 'researcher' distinction implicitly accepts the institutional separation of roles discussed in section 2.1 of this chapter, as well as implying that the roles are mutually exclusive.

However useful the two-dimensional schema might be for classifying different kinds of research project, they are not used to develop a conceptual framework for analysing exactly what characterizes teachers' engagement, particularly from the practitioner perspective. Consequently, this approach has little to say about the importance of teachers' sense of agency with respect to research.

The suggestion is not that agency is best located in the hands of either teachers or researchers, simply that there are choices to be made, depending on purpose and context. (Cordingley, 2015:240)

This names the problem but does not explain it. Similarly, the categorization by Cordingley of teachers' activities indicating effective 'research-informed CPDL' (2015:240-241) results in a list that covers a wide range of ways in which practitioners may seek to enhance their own professional knowledge, without explaining exactly what each way might consist of, other than 'demonstrating the importance' of it (Cordingley, 2015:241). For example, 'focusing on why things do and don't work in different contexts' (ibid.) entails 'rooting professional learning in

real world day-to-day challenges and in existing theories of practice' (Cordingley, 2015:245) yet how teachers manage that conjunction of challenges and theories remains unspecified. Here the distinction between engagement with and engagement in research seems to be less important, as when the systematic review of practitioner use of research (Bell et al., 2010:13) cites Saunders (2007) with respect to the question 'what are teachers doing when they engage with and in research?'. Saunders' answer is presented as a descriptive bullet-point list of what teachers might be observed doing (it is not clear whether this is based on actual observation or is a list generated by Saunders reflecting on her own practice). What is not presented is any indication of the conceptual underpinnings of the activities that might explain how they constitute a coherent strategy for generating, transforming and using codified knowledge in practical teaching situations.

Matters of situational and cultural context are not incidental to an understanding of the educational outcome but are integral to it. The generalized categorical descriptions and professional development abstractions derived in and from the systematic reviews and reports discussed by Cordingley do not generally give due consideration to those contextual matters, even as they acknowledge teachers' concern with them (Cordingley, 2015:246).

The work of CUREE and other organizations concerned with professional development does argue for the conceptual coherence of teachers engaging with and in research. Their perspective argues that such engagement is a learning problem, not one of performance.

Important as teacher performance is, focussing upon it can only help us raise the base level of professional practice; it is teacher learning, rather than performance, that has the potential to help the profession raise its own ceiling. Yet teachers themselves contribute to the relentless focus on behaviours and performance... (Cordingley, 2013:22).

This may have something to do with teachers' daily practice being conducted within a professional culture of performativity (Ball, 2003). They may or may not aim to enhance their own learning, but unless this is directly related to the aim of enhancing performance, any learning and development activities might run the risk of not being seen to be relevant by those implementing inspection regimes. That 'relentless focus' is a requirement of teachers' professional situation, and not necessarily one of their choosing.

One article that does seek to move beyond general descriptions of the engagement process is by Bevan (2004). He identifies three phases of teachers' engagement with research, and explicitly states that these phases correspond to different stages in the typical teacher's life cycle (Bevan, 2004:327). These phases are:

1. Filtering – the subjective selection and rejection of research with personal interpretation;
2. Fragmenting – research findings taken in isolation, and removed from context;
- and 3. Fiddling – applying findings, informal action research, tinkering and transforming.

(Bevan, 2004:326)

It is not clear whether the names of these phases originate with the author or are derived from other practitioners. Nor is it clear why the phases are sequential.

Although the examples of 'personal biography' included in the article render this sequence plausible, it would not be difficult to conceive of alternative examples that would change the sequence. The second and third terms also imply that even an

experienced teacher would not engage in research in a rigorously consistent, strategic manner — why would the action research be at best only ‘informal’? The phases point to a developmental perspective that moves from the individual psychology of a new entrant to the collaborative approach of a school leader establishing a research culture. From that perspective, ‘filtration’ becomes an inadequate form of engagement.

One possible way forward is to recognise and respond to the need for extensive production of standardised quality-assured ‘kite-marked’ summaries of research: designed to minimise the impact of teacher filtration, and limit the associated fragmentation of complex findings (Bevan, 2004:330-331).

Here ‘filtration’ (a process now presented as a fixed entity) is an impediment to engagement which ought to be minimized, and the diverse forms taken by research reports ought to be standardized. For Bevan, the problem is one of communication and subjective interpretation, because teachers are seen to be primarily ‘consumers or users’ (Bevan, 2004:326) of research. Here the implicit split between engagement with research and engagement in research leads to a schematic conception of research itself, which reduces the complexity that might be involved even in ‘filtering’. Moreover, this split corresponds in important respects to the split between theory and practice.

2.2.3 A theory-practice split

Although every profession might be said to have to work with a split between theory and practice, education seems to be particularly prone to the effects of this split. The American educator Ira Shor summarised the practical consequences: —

While every practice has a theory and vice versa, most of the research on education is not helpful in the helter-skelter hours of the real classroom. Further, too much of the ideology or philosophy of education comes at teachers in a language foreign to them. Teachers face too many classes, too many students, and too much administrative control, so the need for something that works in class stands out stronger than the apparent need for theory. Still, the troubling failures of the school system call out for new ideas. Even overworked teachers are curious about alternatives. (Freire and Shor, 1987:2)

This separation of theory and practice, which corresponds to a professional separation of academics and practitioners expressed in the institutional separation of different educational sectors, as Carr and Kemmis (1986) noted nearly three decades ago, may affect both the aims and the processes of research itself. Furthermore, the relationship between the two communities is seen as not always being a mutually supportive one. ‘... a working relationship between academic researchers and teachers can be one of three models: client–supplier, a coercive relationship or a collaborative relationship’ (Bevins & Price, 2014:1). Accordingly, this separation has either been accepted and ways have been sought to cross the divide without abolishing it, or ways have been proposed to bring research out of the academy.

Considering the relationship of teachers to academic research, Tripp (1993) identifies three traditions that show those various responses to that separation. The first is the ‘process-product classroom research approach’ where teachers are expected to apply research conducted by others. In this approach, teachers are excluded from the research activity and so are less likely to apply its findings, though they have been encouraged to become familiar with the products of research by undertaking continuing professional development, often including enrolment in Masters degree

programmes. Second is the action research, teacher-as-researcher approach first elaborated by Stenhouse (1975). The difficulty with this approach is that the knowledge created by teachers-as-researchers tends to remain local with very little of it being generalized as academic educational knowledge in a wider context. The third tradition is that of the reflective practitioner, associated with Donald Schön (1983) where, as Tripp points out, ‘teachers tend to draw on personal and general rather than specialist theoretical knowledge as the basis for their judgements’ (Tripp, 1993:7). If this is the case, then the theoretical knowledge produced by academic research will tend to be neglected. Tripp proposed to initiate a fourth tradition with his development of critical incident analysis, though interestingly this seems to have become assimilated into the reflective practitioner approach as a general model of professional activity, for teachers and health or social care workers (Jasper, 2013).

2.2.4 The practical problematic and ‘what works’

The enduring separation of professional practice from educational theory has meant that those traditional responses have led to a fragmented view of how teachers should utilise research, rather than to an established consensus about it. In this situation, because so much of pedagogic practice is inevitably subjected to routines, the maintenance and adaptation of those routines take priority (See Brown & McIntyre, 1993). When problems arise in that process, practitioners are more concerned with taking corrective action within the immediate context, rather than investigating in a more fundamental way those aspects of the context that might have caused the problem.

A professional working within the practical problematic is one whose awareness is exclusively turned to setting out to find a way to get something done without considering, for instance, in whose

interests it ought to be done, or even what has produced the circumstances in and about which action is required.
(Tripp, 1993:16).

The practical problematic appeals to experience as the validating source of professional knowledge. This values the tacit knowledge gained from experience over the explicit knowledge embodied in theory, because it is experience that matters in ensuring that ‘the practical realities of classrooms’ (Tripp, 1993:16) are dealt with in an orderly and conventionally acceptable way. The teacher’s ability to manage learning behaviour within the classroom on a day-to-day basis legitimates the experience which has produced that ability, over more generalized knowledge produced by research undertaken in contexts elsewhere. The professional dominance of the practical problematic seems to discount the relevance of research. So this problem of relevance means that the avowed purpose of research, to improve practice, is disavowed.

Tripp shows that reflection on critical incidents reveals the limitations of the practical problematic. Because of these limitations, ‘though most teachers expertly make practical judgements and are frequently reflective, they generally are not able to make either diagnostic or critical judgements’ (Tripp, 1993:140). It is this last kind of judgement that involves systematic, formal research strategies, enabling practitioners not just to act within particular contexts but also to understand the nature and significance of those contexts in affecting what they and their learners do.

Research can only meet the purpose of helping practitioners to improve if it is legitimated as an activity which practitioners will be prepared to notice and act on.

So the answer to the question about the purpose of research must refer both to the outcomes of research and to the valuing of that research by practitioners, in terms of the knowledge created and with respect to the other values that they hold.

Alexander (2004) also considers professional knowledge and its valued sources. He proposes that:

‘professional knowledge grounded in different kinds of evidence, together with principles which have been distilled from collective understanding and experience, are also called for, in order that ... teachers are able to make “rationally defensible professional judgements”...’ (Alexander, 2004:8).

For Alexander, successive British governments appear to have endorsed professional judgements based on the practical problematic, in that they ‘have elevated the quintessentially pragmatic mantra “what works” to the status of ultimate criterion for judging whether a practice is educationally sound’ (Alexander, 2004:9). However, although the mantra has persisted to the presentday, with the government setting up in 2013 the What Works Network (Great Britain, Cabinet Office, 2017), extending it beyond education across the whole public sector, and the phrase may still make an appeal to practitioners’ pragmatism, it is actually used to promote what the government regards as evidence-based practice. ‘What Works is based on the principle that good decision-making should be informed by the best available evidence’ (ibid.). (See section 2.3.3 of this chapter for a consideration of evidence-based practice.)

Studies of particular subject pedagogies tell a similar story about the need to overcome the appeal of ‘what works’ as a reliance on custom and convention.

Fleming and Stevens (2009) suggest that English teachers' perspective on practice means that research may be ignored because practice is conceived in a way that excludes consideration of it.

Professional practice... may be based on authority ("we do it this way because we have been told to do so"), tradition ("we have always done it this way"), prejudice ("we do it this way because no other way is acceptable") or dogma ("we do it this way because we know we are right")
(Fleming and Stevens, 2009:248).

But this does not mean that teachers should instead accept research knowledge uncritically. Evans (2002:25) advised that professional practitioners should be aware of the criticism of educational research and should also carefully analyse and evaluate it before merely dismissing it or prejudging it. A common example is that a teacher divides pupils or students into two groups; one is the control group, the other is the experimental group. The outcome might show which group has a better performance, but this in itself cannot demonstrate if there are certain social factors affecting the results, nor can such a study indicate whether the method of conducting this quasi-experiment will have a negative effect in the long term. Fleming and Stevens (2009:249) argue that 'empirical research can inform practice but on its own it cannot determine it'. In order to have this insight, as Fleming and Stevens put it, 'teachers must have some grasp of research principles', as they would need to have sufficient understanding to analyze, evaluate and critically examine the research. Ekiz (2006:399) found 'that the majority of teachers prefer practical educational literature that deals with practical questions of education rather than literature that deals with theoretical issues.' It is understandable and apparently realistic in everyday classroom situations that practitioners would continue to operate within the practical problematic and focus on the need for things to be done in a readily

operational way, yet in those circumstances the question of underlying effectiveness goes unasked.

In 1998, a review of educational research commissioned by *Ofsted* with the *DfEE* stated that, ‘The picture emerged of researchers doing their research largely in a vacuum, unnoticed and unheeded by anyone else’ (Tooley and Darby, 1998:6). A response might have been to seek to emphasize the role of research in teachers’ continuing professional development, and the work of Cordingley and others (see section 2.2.2 of this chapter) indicates that this has indeed been a dominant part of the response as it has developed since 1998. Yet there is no clear evidence that this has altered the teaching profession’s continued valuing of practicality in educational research, or that it is regarded as appropriate to do so. ‘Evidence shows this to be the case even at pre-service level’ (Evans, 2002:37) It is not apparent that the overall situation has changed since Evans cited a study of trainee teachers in the U.K., which suggested most trainee teachers regard professional development as a means of becoming officially accredited practitioners, rather than primarily gaining skills in becoming researching practitioners (Evans, 2002:37-38). From the evaluations and conclusions presented in what *Ofsted* refers to on its website as ‘The Tooley Report’ (Tooley and Darby, 1998), a contrasting picture could also be derived about the relationships between policy makers, educational researchers and the teaching profession. This picture could be characterized as follows: policy makers pick and choose theories which suit their values and apply them to schools where this will affect greatly the teachers involved; but the educational research which is the most noticeable and is picked out by politicians, government departments and agencies

might be entirely inappropriate in school situations other than where the research was conducted. Teachers can easily be cast in the role of victims or villains in this process: on the one hand, they have to obey the policy; on the other hand, they are criticised for not applying research properly to their practice. Tuytens and Devos (2010:531) found that school principals' support does not significantly affect teachers' perception of teacher evaluation policy. They argue that school leaders would have more impact on teachers becoming research-informed in their practice if teachers have more trust in them and if school leaders offered a clear structure for that change in the approach to practice.

A second way in which particular studies corroborate the neglect of research by practitioners relates to criticisms of researchers rather than teachers. Evans (2002) points to the extensive criticism claiming, with some justification, that both the quality and rigour of educational research is quite low. 'Yet I interpret rigour as involving more than this; I believe it relates also to the depth and quality of data analysis' (Evans, 2002:32). This criticism manifests itself in relation to Pring's (2004) characterisation of academic research as being caught in a false dualism of qualitative versus quantitative approaches, with the former tending to be favoured by most academic researchers while the latter tends to be favoured by policy makers in education. 'The purpose of education research... is not to arrive at certainty or to prove once and for all that one particular approach is the right way to do things' (Fleming & Stevens, 2010:250). Yet it is precisely this negated purpose that seems to be what practitioners and politicians are wanting research to provide.

So how can the purpose, or rather the purposes, of educational research be realised in ways that might help to improve practice without being led towards a false aim of endorsing unachievable, ‘one size fits all’ prescriptions? How can teachers’ practice be informed by research without on the one hand producing studies so localised that the results will not be seen as applicable to other contexts, yet at the same time take sufficient account of specific contexts to be capable of being integrated into actual practice? The literature suggests that in addition to formal teacher education it is essential to build a bridge between researchers and practitioners; and this bridge could be built through collaborative communities of practice, where researchers and practitioners engage with each other even though the individuals involved may be at different levels of expertise on either side. It might be thought that this situation already exists, as the education profession could be regarded as consisting of many overlapping communities. For example, a professional development course can form a community; teachers’ unions could also be thought of as communities of practice, and subject-discipline networks could also be described in these terms.

These communities have fluid memberships as people move through them and from one community to another, exchanging ideas, improving their understanding of the current situation and try to work together to improve the existing problems. De Vries and others (2013) report that continuing professional development (CPD) has been a common phenomenon and it is important to improve teachers’ quality, particularly with respect to reflective thinking and the need to reinforce the importance of collaboration. De Vries and others (2013:86) also found that female teachers participated significantly more in CPD in general, as well as in each CPD activity,

compared with male teachers. Further, teachers' beliefs are regarded as implicit, and it is important to help teachers to make their beliefs explicit and better integrated with the existing knowledge. Nicholson-Goodman and Garman (2007) emphasize the importance of accountability of research and of undertaking a careful examination of research studies in order to avoid misusing them. This can only be achieved if there are closer relations between academic researchers and teachers. 'The true learning community is essentially democratic, employing the full talents and energies of all of its participants' (Nicholson-Goodman & Garman, 2007:297). Geijsel and Meijers (2005) emphasise the need to provide 'strong learning environments' not just for pupils but for teachers. They point out that often schools introduce innovative structures that seek to enhance organizational learning, but this may not necessarily benefit individual teachers. They argue for change processes to focus more on what they call 'identity learning' to facilitate teachers' professional development by acknowledging the affective dimension of learning, as well as opportunities for collaborative dialogue about how practitioners can share 'meaning-giving' and sense-making' (Geijsel and Meijers, 2005:427; see also Akkerman & Meijer 2011 for a further emphasis on the importance of dialogic opportunities). Evans (2002) argued that teachers tend to seek answers from the findings of the research rather than looking at a bigger picture. One needs to think how to improve this 'percolation' process so that it will not become an obstacle (Evans, 2002:44). Academics near the beginning of their research careers could provide an important facilitating and coordinating role here, as they may be more open to new practices.

Bridging the divide involved having both Research Fellows and teachers step away from their associated roles as university and teacher knowledge producers and users. This shift to new spaces

required both parties to be receptive to change and vulnerability’ (Arhar et al., 2013:227).

This so-called ‘third place’ for both post-doctoral researchers and the ‘real world’ is one way of interpreting a formation of a community of practice.

Everton and others (2002) produced an important report on two surveys of teachers’ views of research. The first one was originally commissioned by the Teacher Training Agency (TTA) in 1998. The second one surveyed participants at a series of TTA conferences in 2000. The results of both surveys were consolidated for the purposes of analysis. The authors state that ‘the combined sample from the two surveys gave a more satisfactory representation of the teaching profession’ (Everton et al., 2002:376). It may well be that this combined data-set is more ‘satisfactory’ than the first survey results alone, but it is not clear why it should be more representative of the teaching profession as a whole.

One criticism of the relevance of this paper might be that since it was published over a decade ago, some findings may no longer be applicable. For example, newspapers were highly ranked by respondents as a source of research information. One might envisage that if a similar survey were conducted today that internet websites would figure prominently, yet in the survey this source is not even mentioned. There is clearly a research need to find out what kinds of sources are used in contemporary practice, where social media such as *Facebook* and *Twitter* might be hypothesised to play a large part, particularly amongst those new to a career in teaching.

It is also worth noting from the authors’ discussion of the survey data that when the respondents were asked to indicate the extent to which research had influenced their

practice, ‘only a third of the 572 teachers’ comments were sufficiently clear to be enable them to be classified’ (Everton et al., 2002:382). The authors offer no further discussion of the two-thirds of responses that they regard as not being ‘unambiguous’ (ibid.). It would have been interesting to know why so many teacher practitioners were seemingly unable to articulate explicitly how, and how much, they had been influenced in their practice by research. Presumably, this could only have been explored by means of follow-up interviews with a sub-sample, which could not have been conducted anyway if the raw data had been collected anonymously. However, even if this could have been done, it may not have yielded any explanations. The teachers may be drawing on their tacit professional knowledge in order to evaluate and make use in their practice of research published elsewhere. This process of deriving usable knowledge may be capable of being articulated but not in a systematic or codified way. The research design implemented in the research study reported in this thesis sought to pay particular attention to eliciting statements from research participants that express views about the importance of research for their practice, and to consider them regardless of their ambiguity or clarity.

In the study by Everton and others (2002), a factor analysis of the survey data led to the main finding that teachers most value educational research that is related to classroom practice. This is not surprising. What is more interesting is that respondents tended to value more highly research whose findings could be interpreted ‘*in the context of their own situation*’ (in italics in the original; Everton et al., 2002:390). The question is, who did the interpreting? Was it the teachers themselves or did they have the opportunity to engage in professional networks

where academic researchers might be consulted? The article gives no indication either way. This too was considered in the research design of the study reported here.

What evidence is there that teacher education might affect the conceptions of research held by new entrants to the profession? Reis-Jorge (2007) reports on a case study of nine overseas teachers attending a B.Ed. degree course in teaching English as a foreign language. The research scope and design are very different from the large survey approach in the paper by Everton and others. Nevertheless, there is a similar claim for the findings to be generalizable. To support this, the author extends the range of meanings associated with the ‘notion of *teacher-research*’ (Reis-Jorge, 2007:403). He argues for three conceptions of this term: the first derived from ‘traditional university-based’ approaches (ibid.); the second derived from the reflective practice of teachers in classrooms; and the third identified as a distinct hybrid of the first two, though apparently with the emphasis on a formal version of teachers’ own methods of enquiry.

From this conceptualisation, the author constructs a two-dimensional continuum of teacher-research (Reis-Jorge, 2007:404), which uses the idea of practical context as a distinguishing feature.

Apart from the findings from the case study endorsing the importance of context for how respondents viewed research, one of the more interesting aspects of those findings was the respondents’ ‘tendency to place practitioner-based enquiry within the boundaries of the classroom’ (Reis-Jorge, 2007:414). Teachers did not seem to consider the school or the community as possible objects for analysis. Although the

author does not argue that this shows a narrow conception of the context of practice, he does imply that this is a limitation on teachers' views of research. The impression given is that teacher education can appear to focus on technical abilities rather than on an awareness of the wider organisational, political and cultural contexts within which teaching and learning takes place.

Finally, the paper concludes that teachers might be more positively engaged with research if they were given opportunities as part of their professional development to participate in researching activities that do not necessarily conform to the traditional academic model. One example is that of 'a material design project' (Reis-Jorge, 2007:415). This might be regarded as something similar to the kind of activity that a teacher-researcher' community of practice might undertake. Again, it is argued that reflection is crucial to the whole process of teachers' engagement. This is a dominant view in the research literature on this topic. It is not clear, though, whether this continuing emphasis on what is called here 'a reflective stance to future practice' (ibid.) always means precisely the same thing. This should be explored further, particularly because the widespread insistence on reflection seems to take the idea of teachers' professional knowledge in a different direction from the kind of knowledge required to conduct educational research in ways that those outside of the profession might view as objective.

2.3 The problem of professional knowledge

Hence the question arising from this initial review of the contrast in the existing literature between what teachers are expected to do and what they actually do is one

which needs to consider professional knowledge and how that encompasses what is thought of as useful knowledge. At first glance this might appear to be the kind of question posed not by David Hargreaves in his 1996 lecture to the Teacher Training Agency but by Andy Hargreaves in the same year: ‘What use is university-based research knowledge to teachers? How can it be made more useful?’

(Hargreaves, 1996:105). But the matter is not so simple, because what is meant by ‘useful’ is itself open to question. How can the purpose of research itself be valued as being concerned with usefulness without being reduced to the merely utilitarian discovery of technical solutions, and be taken seriously in terms of the knowledge produced? Tripp’s classification might be updated and extended by seeing it as posing the problem of determining which kinds of knowledge teachers value, and what the relations are between those different kinds of knowledge that follow from that valuing, for practitioners. This is not just an epistemological problem; it is also an important practical one, because if research outcomes do not produce knowledge that teachers value, they will not attempt to use that knowledge in order to improve practice.

The objectivist position about knowledge is a belief that it is possible to obtain knowledge of reality which exists independently of any individual, while the subjectivist position about knowledge is that it is socially constructed. The distinction between these two positions can lead to student and novice teachers misunderstanding the relationship between theory and practice. Gilroy (1989) argues that in their own education they have most likely been exposed to and taught the objectivist position or what he calls autocratic knowledge. This means that they will regard the knowledge of theory derived from their teacher education course as

authoritative, until they go out to schools where the practical knowledge they are given by experienced teachers, and which they can observe being used to manage the daily practice of teaching, will authoritatively conflict with that theoretical knowledge. They may then reject it as irrelevant. Gilroy argues that if student-teachers took a subjectivist position about knowledge they would understand that theoretical knowledge is one kind of socially constructed knowledge and practical knowledge is another, rather than feeling that they have to reject the former in favour of the latter because professional practitioners now possess greater authority for them.

From a constructivist perspective, they do not internalise the theoretical knowledge in order for it to inform their own actions and expressions. They may hold disjunctive beliefs about codified knowledge and their own personal knowledge derived experientially. For novice-teachers this disjunctive understanding may be significant. They may regard educational theory as something external to their own experiential learning, rather than as something that can help them to develop a more informed understanding of their professional context. In a study of student-teachers, Calderhead & Robson (1991) found that all but one of their research subjects conceptualised their teaching practice as an image mostly derived from their experience in the classroom. ‘This research emphasises the role of school experience as a powerful socialising agent, which “washes out” the effects of training’ (Calderhead & Robson, 1991:2). Only one student-teacher conceived practice in terms of principles, a form of codified explicit knowledge embodying theoretical precepts. Eventually novice teachers become qualified and experienced practitioners, who may continue in their disjunctive beliefs and so in turn start another cycle of

practitioners setting aside theoretical research knowledge as something external to their understanding of what it means to be an experienced practitioner, in other words as knowledge integral to their sense of professional identity. That knowledge will be retained, but it is less likely to inform their daily practice as good professionals. Because images of teaching often embody feelings and values, and may be expressed using metaphors as verbal representations of visual images, they can be quite hard to dislodge or modify. On the other hand, as Calderhead and Robson point out, such images can perform the useful function of integrating procedural (tacit) knowledge and declarative (explicit codified) knowledge, so if attention is paid in professional development to teachers' images of practice, or aspects of practice, then they may be helped towards a more integrated form of professional knowledge. There have been four main ways in which the profession has attempted to change the situation in a more integrated direction.

2.3.1 Teachers as researchers

One way of getting research knowledge valued by practitioners is for practitioners to produce it themselves. This is the 'teacher as researcher' approach first favoured by Stenhouse and then developed by Carr and Kemmis (1986). The intention of Carr and Kemmis in their book could perhaps be summarised briefly as aiming to consider how teachers might improve educational practice by engaging in research into that practice. The problem is that teachers cannot for very good practical reasons engage in what one might call traditional educational research activities, because that would require them to study a large number of learners over whom they have no direct influence. Yet their daily involvement with their own classes makes this kind of

apparently objective study, where the researcher remains separate from those being studied, impractical.

So the question arises, how can teachers carry out valid and reliable research into their own practice in order to improve that practice? Carr and Kemmis review the various approaches to educational research and discuss the respective conceptions of valid and reliable knowledge that each approach endorses. They conclude that collaborative action research is an approach which can be justified as valid and reliable and of benefit both to individual practitioners using it and to the teaching profession generally. '[P]articipants in these [curriculum and professional] development processes are increasingly choosing action research as a way of participating in decision-making about development' (Carr & Kemmis, 1986:162). Mertler (2012) indicates that action research is to some extent empowering teachers. Hadfield (2012) sees this empowerment as something more than individual; action research empowers teachers to begin to fulfil the emancipatory social aims of critical education. This entails a transformation of practical reasoning that acknowledges its apparently selective or even contradictory uses of theory. Hadfield regards his self-reflective paper as being:

ultimately a defence of the action researcher as *bricoleur*. The *bricoleur* must, in dealing with the complexities of practice, make resourceful use of whatever is to hand, becoming, essentially, a skilful DIYer' (Hadfield, 2012:584).

Thomas (2004:5) also invokes the concept of the *bricoleur* to describe one of the means by which 'different communities of inquiry', including teachers, establish relevant evidence. Teachers may get most from their *bricolage* if they are not the only participants in the process. Action research 'involves teachers in researching

education, and it can also involve students, parents, school administrators and others.’ (Carr & Kemmis, 1986:174) Action research is presented as being worth carrying out in an individual institution, academy or school provided that the research participants are not exclusively students and their teachers.

Townsend (2012:7) considers three modes of action research: community engagement and participative inquiry, developing practices through reflective inquiry, and reflexivity and understanding of the self. Basten (2012) also stresses the importance of reflexivity in action research. ‘I think all action research benefits from this awareness and reflexivity. They also urge us to seriously consider strategies for co-creation of knowledge and innovation’ (Basten, 2012:110).

The conditions of its success are in the improvement of actual educational practices, the improvement of the understandings of those involved in the educational process, and the improvement of the situations in which those practices are carried out.
(Carr & Kemmis, 1986:174)

In other words, any success for action research is still necessarily restricted and constrained, geographically and temporally, to the practitioners’ situation, and this is regarded as a positive benefit. Those who promote action research are suggesting that the necessary restrictions on what is possible are actually strengths, because this focuses attention on participants’ understanding in ways which are only accessible to researchers if they are themselves participants. The outcome of the action research depends on researchers’ understanding or knowledge of participants’ roles: —

[Action] researchers aim for intervention in order to change the situation, expecting advances in theory or understanding to follow... Participants may be regarded as objects of study... or as

co-operators with the researchers in the quest for knowledge
(Carr & Kemmis, 1986:29)

To sum up, this approach to the problem of the valuing of knowledge proposes that teachers develop a professional identity of teacher-as-researcher, in collaboration with other stakeholders in the formal educational process. Its corresponding form of knowledge-creating activity is action research; but this itself can have a relatively devalued status in terms of the research knowledge produced (Bryman, 2008:382; Newby, 2010:64), because this kind of research is regarded as necessarily taking place in highly localised contexts and concentrating on improving practice by paying attention to what is unique to that context. Almost by definition, the research knowledge produced is not thought to be generalizable. Further, because teachers are the researchers, they do not necessarily have the academic status or the publications profile that would lead to their findings being taken seriously by the university-based researchers who can use their higher academic status to influence what counts as valid research knowledge.

Nearly thirty years after Carr and Kemmis argued for a greater emphasis on action research by academic researchers and by teacher-researchers for whom it might enable the development of an emancipatory learning environment, this relatively inferior status remains and may even have been exacerbated by government policies during this period, which have consistently devalued it as a way of producing research knowledge that can inform evidence-based practice, as compared to research activities that range across many locations and contexts. For example, the

British government-funded Education Endowment Foundation (EEF) states in its current guidance notes for those applying for research project support:

We do not fund projects in one or very small numbers of schools/settings. Our smallest projects have been in 3-4 schools, but are typically in more than 50, and often over 80, institutions. (EEF, 2017:2)

It may seem reasonable that small-scale projects would not be eligible for external funding. One might expect, however, that if action research is valued then evidence from such projects could be used to support a school's application for funding a larger-scale project or for participating in one. This does not appear to be the case. Section 2.10 of the same document requires applicants to select from a list the 'type of research' that provided 'the strongest evidence' showing that 'the proposed programme is likely to have an impact on attainment, or an outcome closely linked to attainment' (EEF, 2017:5). The list is as follows:

- i. Randomised controlled trial
 - ii. Quasi-experimental design trial (e.g. matched control)
 - iii. Pre-and post-test data
 - iv. Case study data
- (EEF, 2017:5)

Although the first three items on this list could be methods employed as part of an action research project, they would not normally be regarded as the central element of an action research design, where procedures for collaborative, critical reflection would be expected to be central (Newby, 2010:62,65). Similarly, the fourth item may provide data to inform the setting-up of an action research project, but methodologically a case study usually involves a different approach, particularly with respect to the role of the researcher (Newby, 2010:65).

It is perhaps not surprising that a governmental *What Works Centre* does not endorse an action research approach, because the purposes of that approach concern organizational change, process improvement or individual learning development (Newby, 2010:63), whereas government policy-makers are more concerned with evaluating the impact of an intervention in practice, as indicated in the guidance notes quoted above (EEF, 2017:5). Bryman points out: ‘action research should not be confused with evaluation research ... which usually denotes the study of the impact of an intervention’ (Bryman, 2008:382). The items in the EEF list are more appropriate to that evaluative purpose. Despite the persuasive argument of Carr and Kemmis to forge an intrinsic association between the teacher-as-researcher and action research, it seems clear that from a governmental perspective this association is more contingent.

The prospects for raising the status of action research have become so diminished that Levin and Greenwood (2011), reviewing the situation for the most recent edition of an influential handbook on qualitative research, conclude that until universities restructure their own practice of bringing teaching and research together through action research then the usefulness of knowledge produced in universities for other social professions is itself in jeopardy, and may threaten the future existence of the university as a public institution. They conclude further that the likelihood of that restructuring occurring soon is low. However plausible action research might appear to be, as a meaningful way forward for both academic researcher-teachers and school teacher-researchers, it does not appear to be feasible as a widespread solution in present policy circumstances. Nevertheless, the importance of the whole debate

about action research during this period is that it has raised the question of the relationship of school practitioners to research.

2.3.2 The use of meta-analyses

A second way of getting research knowledge valued by practitioners is via meta-analyses of existing published research. An example of this would be work done by Hattie, who claims to have conducted systematic reviews of more than nine hundred meta-analyses (Hattie, 2012:12), resulting in his concept of visible learning and publications that aim to make available and comprehensible to teachers the evidence from meta-analyses of research on particular educational areas.

Research meta-analyses usually aggregate different research studies together and look for common effects among them. This appears to be a good method of establishing findings for practitioners to apply in their practice. It is claimed that meta-analyses not only can find out whether an effect exists, but also can tell what effect size that is. However, one key criticism of it is that different studies might employ different methodologies arising from problems of concern specific to the research context, so if one just merges them regardless of the context of study, the resulting findings would be erroneous. This might be particularly so for studies that adopt qualitative and interpretive approaches.

Attempts to develop meta-analysis of qualitative and ethnographic studies ... have not been successful, mainly because attempts to aggregate qualitative studies do not allow “a full exploration of context”, or the “ethnographic uniqueness” of primary studies to be preserved ... (Thomas & Pring, 2004:25)

In addition to these methodological problems, many teachers remain sensitive to the importance of context which meta-analyses transcend by definition. Yet for policy

makers, the idea of meta-analysis seems to be a promising way forward, because one of the main criticisms of educational research is that it is always too localised to the context, whether the methodology employed is that of qualitative case studies or of quantitative (quasi-)experiments or of approaches somewhere on the continuum between these two. 'For example, policy-makers do not generate new knowledge through their own activity in the way that it has been argued teachers theorize practice' (Thomas & Pring, 2004:35). That activity by government departments is often based on statistical analyses of national survey data (ibid.). Although there are justifiable rationales for the production of local knowledges (Geertz, 1983/1993), by definition they are not generalizable in a statistical way. This issue will be discussed further in the next chapter, which is concerned with this study's research design. Here it is sufficient to note Geertz's view, that this necessary particularism can be seen as threatening for those who seek to preserve an insistence on an authoritative objectivity.

This fear of particularism, which ... I regard as a bit of academic neurosis, is especially prominent in my own field ... where those of us who attend with care to specific cases ... are constantly being told that we are undermining thereby the possibility of general knowledge and should take up instead something properly scientific (Geertz, 1983/1993:154-155).

With specific case studies one can only have analytic generalization (Yin, 2014:42) and even then the problem is to ensure that the appropriate and most salient features from a context are those that will allow for some degree of transferability to other contexts. This is not necessarily reported in discussion of research findings. At the other end of that methodological continuum, studies that do provide some statistical generalization are often based on samples that are either numerically too small or not established in rigorous ways, such as by the use of probability sampling, so the

population to which the results might apply with validity and reliability are either highly restricted or not clearly identifiable.

There are two ways forward. One way is to find a method of sampling across many different educational contexts and situations. And that method would be some means of having a study where hundreds or even thousands of schools are signed up to the same project. This is an underlying principle of randomized controlled trials (RCTs), to use the term that is borrowed by analogy from medical research; these have risen to prominence in recent policy initiatives, so they will be considered separately in this literature review.

The other way of arriving at more generalized findings is by taking a range of localised studies and, by doing a systematic analysis of them, they can be aggregated in a very specific way by scrutinising the methodology to establish the comparability of findings. The resulting meta-analysis should then provide a basis for generalizing with large aggregated samples.

There are, however, two problems with this. The first problem is internal to meta-analysis and it is methodological. When systematically aggregating studies, because the meta-analyst does not use the original raw data (Kulik & Kulik, 1989:238), often the researchers' claims for the rigour of the analysis has to be taken at face value. It can be argued that by using standardized mean differences as 'unit-free measures of effect size' (Kulik & Kulik, 1989:230) errors in data collection and analysis might even out over many studies but it is just as possible that they might be compounded. As exact replication of an educational intervention is almost impossible to carry out, researchers' self-reported procedures for warranting the original investigations

ultimately have to be accepted, whether they are stated in published reports or in separate communications between researchers and meta-analysts.

The peer review process of academic journal publishing scrutinises the reported methodology for acceptable rigour, though often it is only when others in the field publish critiques that legitimate challenges are raised. These critiques will not necessarily be taken into account when selecting studies for aggregation. On the other hand, if very strict criteria are applied to the selection of studies, there is a danger that the only studies meeting those criteria are those of an experimental or quasi-experimental design, or even only randomized controlled trials (see Gough et al., 2013:13); possible counter-factual findings that could only be discovered by other designs may then be overlooked.

A similar methodological issue is that if in meta-analysis the search is for published research studies investigating particular intervention effects, studies showing no effects or very small effect sizes are much less likely to be published. This publication bias is difficult to overcome, because unpublished 'no effect' findings are much less likely to be candidates for selection. Kulik and Kulik (1989:232) claim that meta-analytic methodology takes adequate account of publication bias, though it is not clear exactly how using a variety of sources, including unpublished conference papers, technical reports and other organizational documents is guaranteed to negate the self-censorship of diffident researchers (who may well be teachers less practised in methods of gaining academic legitimacy) feeling that their work has not contributed anything worth revealing to peer scrutiny or to outsiders.

The second difficulty with meta-analysis is that of dissemination. As with any other published research that is external to teachers' own situation, the problem remains of

how to communicate it when teachers rarely have the time to read any published research in detail. Moreover, they may not be able to understand how to evaluate meta-analyses critically. Even if meta-analytic findings are published concisely in a manner analogous to ‘sound bites’, as Bassey (1999:51) claims would be a good way of reaching a practitioner readership, this potential lack of understanding will be important. Firstly, the ‘sound bite’ may obscure the complexities of the findings. Secondly, however concise the presentation, there is still the question of the means of dissemination to teachers. Even large projects like the Teaching and Learning Research Programme (TLRP, 2009), which involved many teachers across the U.K. for more than a decade, are finite and may not produce collaborative information flows that become embedded in practice.

There is also the question of power and authority relations. With meta-analyses, as with all research publications whose conditions of existence are external to the known experience of teachers in school, there is the possibility that the teachers may simply feel excluded. In this circumstance, teachers might reasonably say (as will be explored further in chapter five of this thesis), ‘That’s all very well, and academic researchers have the power and authority when it comes to the codified knowledge of what works. But I know my class of learners and what works best with these particular individuals, no matter what the generalized findings show.’ In other words, it is not clear why the problem is reducible to one of poor communication and dissemination, as Bassey (1999) claims. The problem may well be more complex. Nevertheless, the study that is the topic of this thesis expressly attempted to elicit statements from participants about whether, in their view, lack of availability or poor dissemination is a barrier to using research.

Paradoxically, the promotion of systematic reviews of meta-analysis as the prime source of evidence about ‘what works’ in the classroom undermines the legitimacy and authority of individual teachers’ reflections on their experience as the basis for pedagogical improvement, and simultaneously insists on the role of the teacher as critical to the whole process: —

What I am *not* saying is that ‘teachers matter’: this cliché is the most unsupported claim from the evidence in *Visible Learning*. It is a cliché that masks the fact that the greatest source of variance in our system relates to teachers... What *does* matter is teachers having a mind frame in which they see it as their role to evaluate their effect on learning (Hattie, 2012:18).

The variance attributable to teachers from the findings of Hattie’s systematic reviews of meta-analysis here becomes both the most important element in the learning-teaching situation and, with respect to those generalized findings, the most likely source of why those findings might not be applicable to a particular context. In recommending teachers to go beyond the ‘cliché’ in order to evaluate their effect on learning, Hattie is implying that only by doing this can they ensure that this effect can be better controlled. In other words, teachers’ practice is a variable that needs to be better controlled. Hattie’s perspective towards teachers is that they can affect greatly the successful implementation of pedagogic methods that his meta-analyses have shown to be effective, and that they need to evaluate their role in order to minimize its effect. In these circumstances it would not be surprising if, rather than dissemination being the problem with meta-analyses, teachers themselves were sceptical of an approach to pedagogy that views them as ‘the greatest source of variance’, were this to be the reason given to teachers to persuade them to engage in research.

How the teachers who are the participants in this research study regard their own role is an important issue for this study. To what extent does their professional knowledge, borne of their unique role in evaluating their effect on learning, preserve their sense of agency and professional right to use that knowledge in evaluating research too? The enduring importance for teachers of their special professional knowledge for ensuring that the best is done educationally for the children in their care, should not itself be devalued if the aim is to understand how teachers make use of research knowledge in relation to their own practice.

To consider this further, however, requires in the first instance a brief discussion of what in meta-analysis is held to be the ‘gold standard’ of educational research, because it is seen to provide the most valid and reliable evidence of how to affect learning: randomized controlled trials. (See Grossman and Mackenzie (2005) for discussion of the ‘gold standard’ designation and its origin in the discourse of medical research).

2.3.3 The use of randomized controlled trials

Randomized controlled trials (RCTs) constitute a third way of arriving at more generalized research findings that nevertheless could inform local. Promoters of evidence-based practice tend to prioritize ‘evidence from quantitative research, and especially randomized controlled trials’ (Hammersley, 2004:135). Evidence-based practice is the notion that when teachers engage in practice they should do so on the basis of evidence generated systematically by scientific procedures (Davies, 2004) or that is available to them from properly conducted research, ‘following a path of reasoning that encourages the seeking, marshalling and dissemination of evidence of

a particular kind' (Thomas, 2004:1) rather than relying on evidence derived from isolated observations and personal experience, which becomes their tacit professional knowledge.

The issue, however, for some of the proponents of evidence-based practice is not in recognizing the significance of this kind of tacit knowledge, but rather in understanding practitioners' ability to reconcile it and meld it with knowledge from research: research evidence (Thomas, 2004:9).

Research is thought to inform evidence-based practice because it should produce professional knowledge that is more valid and reliable by not being confined to the local situation.

One of the challenges for pedagogical discourse is to distinguish between what is known in a scientific sense of being explicit, cumulative and generalizable, and what are the irreducibly intuitive and creative elements of teaching. It is generally accepted now that good teaching requires strategic decisions informed by evidence. But it also requires a large number of implicit and often instantaneous judgements and decisions. These are responses to the dynamic situation in the classroom, often shaped by the 'community of practice' to which the teacher belongs. (Pollard, 2010:5)

The kind of knowledge produced by research that seeks to control for the effects of the context is by definition abstracted from any context. This might make it highly valid and reliable in terms of statistical generalization, but the question is how teachers might turn this abstracted knowledge back into situated knowledge that can be applied in the context of their own practice.

This application is not a straightforward process. It may well require further, contextualized research conducted by the teacher if 'evidence-informed practice' is to allow for 'the inclusion of a wider range of evidence' derived from that teacher-

initiated research (Thomas, 2004:18, note 7). So, there is a kind of subtle difference between ‘evidence-based’ and ‘evidence-informed’ practice (see Elliott, 2001), depending on the importance granted to context and the active involvement of the researcher. If, however, this importance is seen as something to be minimized or, better, controlled then that subtle difference becomes a paradigmatic gap across which accusations of unethical objectives can be traded (see Oakley, 2001). And on the policy-making side of that gap, evidence-based research nearly always means trying to control for the effects of the situation by collecting data from many contexts. As noted in section 2.3.1 of this chapter, organizations such as the *Education Endowment Foundation*, jointly designated with *The Sutton Trust* as the government-funded *What Works Centre* that is concerned specifically with education, endorse randomized controlled trials as a type of evidence-based research highly appropriate to this context-independent aim. The *Foundation’s* website offers a clear statement with respect to the nature of the projects that it supports: —

The vast majority of the projects we fund are run as randomised controlled trials ... We are publicly reporting all the results of these independent evaluations ... so that schools have the best possible evidence on which to base their own professional judgements.

(*Education Endowment Foundation: About*, no date)

How teachers in schools actually use or think they use the explicit knowledge embodied in that evidence is seen as a matter outside of the concerns of these research projects.

A full evaluation of the historical development of RCTs and their relation to educational research on the one hand and educational practice on the other is beyond the scope of this literature review. One such historical survey, which concludes in

favour of RCTs as ‘good’ social science, is to be found in Oakley (2000). On the other side, Morrison (2009) reviews the evaluative literature on RCTs in relation to concepts of causation in education, and amongst other criticisms he argues that:

Randomized controlled trials may fail to give an account of the processes and mechanisms at work, and it is these, rather than inputs and outputs, that yield insights into “what works” ... The perhaps seductive simplicity of the desire to find “what works” by RCTs disguises a range of complex factors. These are ethical as well as empirical... Judging “what works” in causation is as much a statement of value as a statement of empirical outcomes. (Morrison, 2009: 154-155).

Why should RCTs be regarded so highly by government agencies? The apparent success of RCTs in medicine in helping to link research and practice has provided educational policy-makers with a justification for claiming that RCTs ‘are the best way of determining whether a policy is working’ (Haynes et al., 2012:4; also see this British Government publication for a concise explanation of RCTs as both concept and method). This justification rests on an implied equivalence of education and medicine as professional practices. This is the medical analogy favoured by Goldacre (2013), who is also one of the authors of the government policy document just cited.

The analogy of education being like medicine is questionable. Children are not patients, who are usually regarded as the relatively passive recipients of a specific treatment. Whether a doctor is good or bad at social interaction and interpersonal communication will not usually affect patients’ health conditions greatly, provided that they have a basic competence in diagnosis and prescription; it is the medication that matters. Yet it is a totally different matter with teaching. Teachers’ attitudes as

well as how they relate to and interact with children can affect greatly children's educational outcomes, as Hattie's systematic reviews acknowledge. An analogy that regards children as the recipients of 'treatments' will inevitably tend to devalue a contrasting view of education as a matter of social practice and interaction that relies on teachers' pedagogic skill and knowledge. This is evident in Goldacre's (2013) publicly available lecture where he promotes the use of RCTs. At the start he appeals to teachers as practitioners who should set the research agenda, yet later he describes them as mere consumers of research and 'foot soldiers' in research activity. Teachers involved in using RCTs would seem to have a problematic status.

Behind the medical analogy is a further analogy with biological sciences, because they use RCTs to estimate the effects of different kinds of cultivation. The metaphor of cultivation, regarding the educational development and growth of young minds as being similar to the cultivation of plants, can be found throughout the history of education, yet with RCTs the metaphor seems to be taken literally. Thomas (2004:12) cites earlier influential work on educational evaluation by Parlett and Hamilton as drawing on an '*agricultural-botany* paradigm' (ibid.), though the metaphor pre-dates the development of modern scientific disciplines, as can be seen from the close etymological histories of the words *culture* and *cultivate*. Within this paradigm there are research subjects — patients in the case of medicine, or crops in the case of agriculture, or children in the case of education. These subjects are given a treatment which in the case of medicine might be a tablet, in the case of crops might be a fertiliser, or in the case of education also nowadays might be a tablet, though one with digital rather than chemical characteristics; and then the effects of this treatment, if any, are observed.

It follows that if establishing ‘what works’ means testing the effects of interventions — ‘treatments’ — then individual teachers, classes and even schools can become merely one ‘randomisation unit’ (ibid.) among hundreds or thousands of such units.

There are two main implications of this large-scale RCT approach. Firstly, teachers become technical administrators whose task is to deliver interventions in their specific situation that have been shown to be generally effective across many learning contexts, in as efficient a manner as possible. This conception is challenged by those educators who, like Pring, declare ‘teaching is a transaction between the teacher and the learner, not the delivery of something to the learner’ (Pring, 2004:210). The conceptual basis of RCTs appears to diminish the professional judgement and autonomy of individual practitioners. A second implication, related to the first, is that large-scale RCTs running across many schools and learning contexts require organisation, co-ordination and control beyond the reach of any one school or individual teacher. The agency of practitioners is circumscribed, not just conceptually but also practically.

From the perspective of individual teachers, then, RCTs may well appear to be as helpful as the systematic reviews and meta-analyses with which they are associated: not so much a means of informing professional practice as a vehicle for constraining it and reducing its scope. The point here is not whether such a perspective is correct, but that it is reasonable to expect individual practitioners to adopt it, when faced with the implications of RCTs being regarded as the ‘gold standard’ of educational research.

All three of the ways considered in this part of the literature review have in common the presupposition that knowledge produced by these types of research is more valid

than other kinds of knowledge because it is codified, explicit and — unlike the knowledge produced by action research — its validity is relatively independent of a context or a small range of contexts. But if teachers value tacit knowledge at least as highly, no amount of teacher involvement in research activity would inevitably lead to practitioners using the outcomes of such research as a fundamental guide to their practice.

All professionals will collect evidence deliberately and tacitly in ways ... [that] ... emphasize the interconnectedness of professional knowledge. The evidence will be reviewed, talked about with colleagues, new things will be tried out as a consequence and informally evaluated. Practitioners' trust in the knowledge that such processes work is *perhaps* at the root of their resistance to the imposition of other kinds of evidence.
(Thomas, 2004:13; my emphasis)

The prime aim of this research study could be conceived as an investigation into whether that 'perhaps' in Thomas's statement has any substance or validity to it. In order to develop this conceptually, though, it is necessary to move beyond the perspective of the individual teacher, which leads to the fourth main way that professional educators have sought to overcome what has been referred to previously as disjunctive understandings and the practical problematic.

2.3.4 Practitioner-researcher collaboration

A fourth way of producing more generalized findings that could be used by practitioners would be through various forms of collaboration between practitioners and researchers. This is the collaborative learning approach, which encompasses a variety of forms, structures and roles. This variety might be differentiated in terms of the extent to which it is presupposed that the identities of everyone coming in to the

collaboration would remain unchanged, or the extent to which it is presupposed that those entering the collaboration are expected to re-negotiate and change their professional identity through that collaboration. At one end of this continuum there is the informal network of information exchange. Because everyone's role in this kind of network is assumed to remain relatively fixed, this is a plausible form of collaboration, though it might also limit the possibilities of what can be achieved. At the other end of the spectrum is the conception of communities of practice, where participants' identities are open to change and re-negotiation, indeed where participants are expected to follow a trajectory of greater participation as their identity moves from that of a novice, hence 'newcomer' to the collaborative community, towards that of an 'oldtimer' as an experienced member of the community. (The terms 'newcomer' and 'oldtimer' were introduced by Lave and Wenger (1991) in the same study that introduced their concept of a community of practice; see section 2.5 of this chapter for consideration of this concept.)

What is interesting about this approach is that it brings to the fore the relationship between professional knowledge and professional identity in a way that does not necessarily assume that the existing structural and conceptual relations between different kinds of knowledge are the only relations that are valid. For this reason, this approach suggests that it should be considered in more detail, because it opens up the problem of the relationship between tacit and explicit knowledge and its incorporation into professional knowledge that this research study is addressing, in order to answer the research questions.

2.4 The valuing of different kinds of knowledge

2.4.1 The concept of reflective practice

The question of the purpose of educational research becomes closely related to another question: do teachers value tacit knowledge more than explicit knowledge, and if so, what are the implications for using educational research in their practice? This question can be conceptualized in terms of how teachers see themselves in relation to the social practice of knowledge creation. It is as much about teachers' identities as professional practitioners as it is about the relevance of research knowledge. Or rather, this is what must be explored in this research study: is the cause of the problem with research often being regarded as having limited use related to a high value being placed on tacit knowledge? And is that high value because tacit knowledge is regarded by all those involved in education as being the special provenance of teaching practitioners, whose professional identity is distinguished from that of academic researchers? The notion of professional identity has been contested at least since the work of Stenhouse in the 1970s, though one model has become dominant in the literature. This model is that of the reflective practitioner, which was developed by Schön (1983). Although Schön's purpose was to revise what makes a professional as distinct from an expert or skilled craftsperson, and although he did not in his original work focus specifically on professional educators, his model has been seen to be applicable to schoolteachers, particularly in their work with other professionals based in health and social services, engaged in promoting the development and well-being of children.

This model became dominant partly because Schön's model revalued tacit knowledge as being crucial to his concept of reflection-in-action. His conception of

the reflective practitioner was predicated on a critique of technical rationality as the embodiment of explicit, codified knowledge. So his model, which tended to give priority to tacit knowledge whilst not denying the role of explicit knowledge, suggested a hybrid professional identity for teachers. However, although this model seemed to align with the development of action research as an activity that teachers could engage in, this still did not lead to the establishing of teachers as researchers, or to Hargreaves' proposal for a research-based profession, and as has been argued in the responses to that proposal over the years since it was made (responses that have been considered in the earlier part of this literature review) many teachers still did not use codified research knowledge to inform their practice.

One possible reason for this might be that Schön's model is firmly rooted in the individual. Although his study, *Educating the Reflective Practitioner* (1987), considered professional newcomers in association with their induction into a profession by more experienced practitioners, the focus remained on individual agency as the means of achieving an identity as a practitioner. This onus on the individual tends to endorse a misconception of research as a private activity when, as Pring (2004b: 134) pointed out, to gain credibility teacher research needs to be an activity open to relatively public scrutiny.

Teacher research, in the form of action research, is so often encouraged and carried out as a lonely isolated activity. Those who are concerned with the promotion of action research... must equally be concerned to develop the professional networks and communities in which it can be fostered. (Pring, 2004b:134)

2.4.2 The valuing of knowledge in relation to professional identity

If the kind of knowledge valued by teachers is a crucial element in their sense of professional identity, how can this be explored? One kind of answer is that there needs to be a closer consideration in practice of the connection between, on the one hand, groups of practitioners working together, whether that working is characterized in terms of networks, communities, teams or other concepts of co-operation or collaboration; and on the other hand, the process of learning, where that process is regarded as a social practice involving participation (Wenger, 1998:3-17) as well as an individual process of acquisition (Sfard, 1998). That connection has been the subject of much research and debate in the domain of knowledge creation and knowledge management, in relation to studies of organizational behaviour. This debate was initiated in the mid-1990s, in the same period as Hargreaves (1996) initiated the debate about the utility of educational research, by Nonaka and Takeuchi's (1995) book-length study of what they called 'knowledge-creating companies'. And just as Hargreaves re-started a debate that had been conducted from a different perspective in the 1970s following Stenhouse's (1975) work, Nonaka and Takeuchi revived the key concept of tacit knowledge that had first been developed by Polanyi (1966), at a time of much debate about knowledge-creation processes in scientific communities, initiated by Kuhn's (1962) notion of a paradigm shift.

Polanyi begins with the idea that '*we can know more than we can tell*'

(Polanyi, 1966:4; italics in the original) and gives the example of facial recognition:

we cannot tell how we recognize a particular face. Polanyi's conception of tacit knowledge, or what he prefers to call in the title of his book 'the tacit dimension' or 'the structure of tacit knowing' (Polanyi, 1966:x), emphasises that this dimension is an essential part of what he also refers to as our 'personal knowledge' that can only be manifested by co-operative participation. For Polanyi, the creation of all new knowledge, scientific and otherwise, entails an active, personal involvement in what is known:

[A]ll novel thought is seen to be an existential commitment... when originality breeds new values, it breeds them tacitly, by implication; we cannot choose explicitly a set of new values, but must submit to them by the very act of creating them or adopting them'. (Polanyi, 1966:xi)

Thomas, in a discussion of educational research and practical learning, notes that Polanyi's concept is close to the ancient Greek idea of *phronesis*, which Aristotle contrasted with theory: —

Aristotle's notion of *phronesis* is about practical knowledge, craft knowledge, with a twist of judgement squeezed into the mix. As it has been used more recently ... it has come to have more of a sense of 'tacit knowledge' [here Thomas cites Polanyi] about it... It is judgement made on the basis of experience (Thomas, 2011:214).

Polanyi's view of knowledge creation, by emphasising its personal, experiential nature as a matter of meaning and identity, contrasts with the positivist image of the researcher who creates new knowledge as a detached observer of phenomena (See Gascoigne and Thornton (2013) for further discussion of this epistemological point.)

The development of the concept of tacit knowledge since Polanyi has retained this aspect of context-dependence whilst challenging the claim that such knowledge is

completely ‘untellable’. Gascoigne and Thornton argue that tacit knowledge is central to personal know-how, ‘and *knowing how* is untellable in the limited sense that it cannot be articulated in depersonalized, context-independent terms’ (2013:31; emphasis in the original). Tacit knowledge is not inarticulable, not least because if it were it is doubtful that this would count as knowledge at all (Gascoigne & Thornton, 2013:5). If something that is completely untellable can be regarded as knowledge, its form must remain ineffable (see Moore, 1997). In this form it would not be usable in any meaningful way for practitioners to incorporate into their professional knowledge. Gascoigne and Thornton argue that Polanyi’s concept of tacit knowledge needs a subtle modification, to distinguish it both from a possible form of knowing that remains ineffable and from explicit, codified knowledge. Accordingly, they propose a principle of articulacy (PA): —

All knowledge can be articulated, either in context-independent terms (i.e. it can be codified) or in context-dependent terms.
(Gascoigne & Thornton, 2013:5).

This principle affirms that the distinction between tacit and explicit knowledge does not depend on whether knowledge can be articulated but on whether it is context-dependent. In any given practical situation, both forms of knowledge are likely to be applied, but only explicit knowledge can be rendered meaningful outside of that situation for anyone who is not a participant in it or who is unfamiliar with the context.

A similar contrast between tacit and explicit knowledge was developed by Nonaka and Takeuchi (1995) from their studies of knowledge creation in Japanese companies.

Tacit knowledge is personal, context-specific, and therefore hard to formalize and communicate. Explicit or “codified” knowledge, on the other hand, refers to knowledge that is transmittable in formal, systematic language. (Nonaka & Takeuchi, 1995:59)

The focus of their research was on how tacit knowledge might be transformed into explicit knowledge. They also identified ways in which tacit knowledge becomes ‘tellable’ not just in systematic, codified discourse but also through story-telling, analogy and metaphor. They themselves use an analogy with the game of rugby football to describe what they observed in Japanese companies of how knowledge is created in team work: —

The ball being passed around in the team contains a shared understanding of what the company stands for... That’s “what” the ball contains — namely, ideals, values, and emotions.
(Nonaka & Takeuchi, 1995:vii)

Nonaka and Takeuchi’s ball-game analogy has an affinity with Bourdieu’s description of his concept of habitus as being ‘a feel for the game’ (Bourdieu, 1998:80) that social agents embody when they are absorbed in ‘the coming moment, the doing, the deed’ (ibid.). If in the above passage ‘school’ is substituted for ‘company’, it can be seen how this analogy might apply to the meanings and values teachers create as expressions in their practice of personal, professional knowledge. Any study of knowledge creation must accordingly seek to understand the meanings and values attributed to different forms of knowledge by participants in that process. Where these meanings and values are derived from, and are dependent on, familiarity with a particular context, they can still be articulated, not necessarily in a codified form but as metaphors, and stories about specific experiences. Therefore it is important to take account of their use by participants in seeking to understand how this knowledge is brought to bear on explicit codified

knowledge in professional practice. Attention should be paid to these metaphors and analogies in their own right, because it is by this means that practitioners' experiential learning is shared with others in the same community of practice or collaborative network.

The contrast between tacit and explicit knowledge developed by Nonaka and Takeuchi has been criticised by Hildreth as presenting too rigid a dichotomy that remains within a 'cognitivist/representational' paradigm (Hildreth, 2004:22). Citing Jerome Bruner's critique of cognitive psychology, he points out that this paradigm regards 'the individual as an information processor' (ibid.). Instead, following Bruner, 'we should move away from the notion of the individual merely as a processor of information and move the emphasis to meaning and how this is negotiated in a community, as individuals cannot exist independent of culture' (ibid.). Hildreth argues that, rather than seeing the tacit-explicit distinction as a dichotomy, all knowledge should be regarded as having both tacit and explicit dimensions, with the tacit dimension being emphasised in knowledge creation through participating in social practice and the explicit dimension being emphasised in the production of artefacts. He proposes using the terms 'soft knowledge' and 'hard knowledge' respectively, to replace the tacit-explicit dichotomy. Although this proposal does not seem to have been taken up in subsequent literature (in their review of the literature on tacit knowledge Gascoigne and Thompson (2013) make no mention of Hildreth), the conception of knowledge as a duality embodying both 'soft' and 'hard' dimensions expresses the two metaphors of knowing that Sfard (1998) identified in the literature, those of participation and acquisition. Sfard argued for the importance of using both metaphors. The literature on communities of

practice, of which Hildreth's (2004) work is a part, seeks to act on Sfard's conclusion, at least where it focuses on the twin processes of reification and participation in learning development, with a recognition that in these processes professional identities are subject to negotiation and transformation rather than remaining fixed as 'information-processing' entities.

That recognition has led to a growing interest in many countries in the idea of learning communities (Bolam et al., 2005; Earl et al., 2006; Lenning & Ebbers, 1999; Williams et al., 2012).

There is a growing consensus that the best way to improve organizational learning is not to (simply) focus on capturing, codifying and documenting knowledge of individuals, but rather to concentrate on ways through which knowledge can be shared, discussed and innovated. (Mittendorf et al., 2006:299)

In China, there has been a corresponding policy concern with encouraging creativity and innovation in education by promoting the practice of groups coming together to enhance the quality of teaching and learning (Ryan, 2011). The tendencies of globalization, particularly as manifested in the growth of social media, have paradoxically made more visible the benefits of community-based activities whilst at the same time endorsing an ideology of individual self-expression. As Snyder and Wenger put it, 'There is an emerging global zeitgeist about community and learning. These issues have become commonplace in multinational organizations — private, public, and non-profit' (Snyder and Wenger, 2004; in Blackmore, 2010:123).

Michael Young has argued that *because* these issues have become commonplace in multinational organizations, they have become issues for schools and for teacher education and development, as a consequence of governments' neo-liberal responses

to the globalizing influence of those organizations and their ideology of technocratic modernisation.

Schools generate practical knowledge in their activities which can be the basis for both student and career teachers to learn; however, both groups also need theoretical knowledge in order to be able to conceptualise how to change their practice in response to new demands... this kind of knowledge is unlikely to be produced in the schools. In other words, a new approach to professional learning requires new kinds of relationships between schools and universities'. (Young, 1998:60)

Young calls for both to develop as learning organizations, a concept that also emphasizes collaborative networks and a sense of belonging, because 'learning is always a social process' (Young, 1998:60).

How can the relations between community, learning and identity be conceptualized in order to comprehend the orientation of school practitioners to different kinds of knowledge? The question of professional identity clearly should be seen as central to both knowledge creation and its application in a pedagogical context. Young summarises the early work of Basil Bernstein on models of professional knowledge: —

[Bernstein] locates the idea of a profession, and more broadly the idea of knowledge, in the dislocation between our inner relationship with our self and our outer relationship with the world, which together constitute our identity as social beings and members of society and, more specifically for some, as members of professions. (Young, 2008:157).

That dislocation draws attention to the structure of knowledge relations and how individuals manage productively the boundaries between different ways of knowing and the membership of multiple social groupings. The two concepts of social

groupings that encompass notions of identity and boundary relations are those of a network and of a community of practice respectively.

Our identities are the living vessels in which communities and boundaries become realized as our experience of the world. Whenever we belong to multiple communities, we experience the boundary in a personal way. (Wenger, 2000:239).

Here the concept of a community of practice comes to the fore.

2.5 Communities of practice

A community of practice (CoP) is a concept developed initially by the anthropologist Jean Lave and the educator Etienne Wenger to denote a kind of group whose members share a craft or a profession (Lave and Wenger, 1991).

Communities of practice are formed by people who engage in a process of collective learning in a shared domain of human endeavor... groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly (Wenger, 2006).

The characteristics of communities of practice, according to Smith (2003, 2009) following Wenger, are 'the domain, the community and the practice.' It is through the process of sharing information and experiences with the group that the members learn from each other, and have an opportunity to develop themselves personally and professionally (Lave and Wenger, 1991). The community of practice is not just a group of people merely gathering together. Members within the CoP learn and receive updated information from each other and engage in collaborative enquiry, though not necessarily in a formalised way. Where the CoP's domain is itself that of

learning and education, then the concept of a CoP becomes conterminous with the more established idea of a learning community. As Snyder and Wenger (2004:109) point out they are a type of learning practice that has probably existed as long as human beings have been sharing their personal or work experiences through — and this is a crucial feature — storytelling.

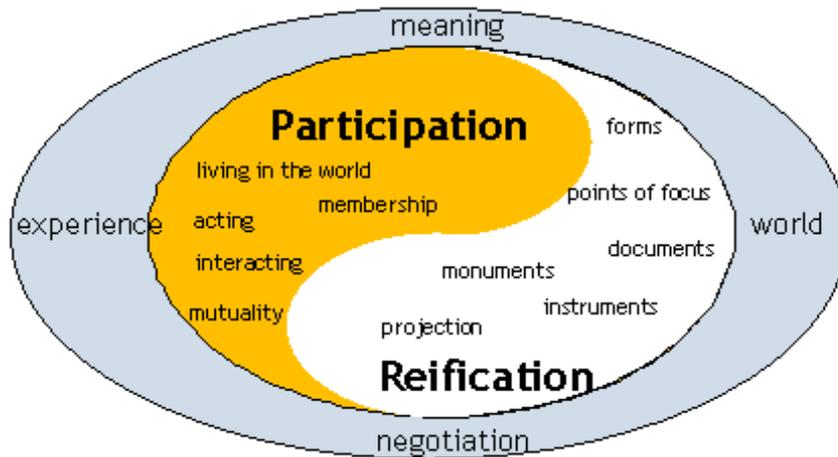
The most distinctive, valuable knowledge in organisations is difficult or impossible to codify and is tightly associated with a professional's personal identity. Developing and disseminating such knowledge depends on informal learning much more than formal — on conversation, storytelling, mentorships, and lessons learned through experience (Snyder and Wenger, 2004:110).

Moreover, members of a CoP aim to produce knowledge and achieve learning together; this makes a CoP different from other associations, clubs or networks, though it could encompass these forms. A CoP embodies an idea of sustainability and the development of shared resources. 'The repertoire combines both reificative and participative aspects. It includes the discourse by which members create meaningful statements about the world' (Wenger, 1998:83). Smith (2009) points out that members not only need to appropriate a shared repertoire of commitments, but also need to develop resources such as 'tools, documents, routines, vocabulary and symbols that in some way carry the accumulated knowledge of the community. In other words, it involves practice' (Smith, 2009). In this respect it aligns with the concept of praxis (discussed further in section 2.8 of this chapter), which was identified by Carr and Kemmis (1986) as an essential component of teachers' professional sense of themselves as agents of change.

[Praxis] is not simply action based on reflection. It is action which embodies certain qualities. These include a commitment to human well being... It is the action of people who are free, who are able to act for themselves. Moreover, *praxis* is always risky. It requires that a person makes a wise and prudent practical judgement about how to act in *this* situation (Carr & Kemmis, 1986:190).

The quality of the resources made by a teachers' CoP, in its reflective social practice based on an ethical commitment to the well-being of pupils in their care, is a key to its successful development, which is sustained by drawing new participants into this practice, not merely by socialization — this implies a stable individual identity that is gradually adapted to a new norm of behaviour — but by a process that distinguishes initial membership of the community from a fully-fledged membership in terms of the degree of participation.

An issue that Wenger (1998) identified in his more extended analysis of CoPs is that of the duality of participation and reification as a powerful force in sustaining a community of practice. This duality is 'a single conceptual unit that is formed by two inseparable and mutually constitutive elements' (Wenger, 1998:66). Participation involves continual re-negotiation of shared meanings, and reification involves the development of artefacts, resources and documents of local policy and procedure, as two opposing forces which can bring tension to the community, because the former encourages questioning while the latter tends to conserve established ways of interacting. Both are necessary for a CoP but they can tend to pull the community in opposing directions. This is comparable to the Taoist (also written in English as Daoist) philosophical concepts of *Yin* and *Yang*, as opposites that share a common ground yet retain differences that are complementary (see Littlejohn, 2009:21). The central element of the diagrammatic representation of this by Wenger seems to evoke this comparison.



(Wenger, 1998:63)



Yin-Yang Symbol

A CoP is a key concept in Lave and Wenger's (1991) theory of situated learning. Smith (2003, 2009) indicates that situated learning 'is something more than simply "learning by doing" or experiential learning'. Situated learning by means of a CoP aims to be transferable across contexts whilst paradoxically only being realizable within contexts.

How might the conception of communities of practice relate to the ways considered earlier in this literature review of bringing practitioners and researchers, and practice and research, closer together? James (2012), in a presidential address to the *British Educational Research Association*, argues for the importance of collaboration, communication and engagement in educational research, in a contemporary climate that is difficult socially, economically and politically. James seems to be calling for the establishment of communities of practice that might seek to bridge the separation of academics and school practitioners, the separation which was identified here as the starting point of the problem which this research study's questions are seeking to address. Because a CoP necessarily involves the negotiation and re-negotiation of identities, it is this aspect of collaboration that would be emphasized, more than the networking aspect. The problem for James' interpretation, as with much of the literature concerned with overcoming that practitioner-researcher separation, is the need for evidence.

A similar aim is reported by Hill and Haigh (2012), who were attempting to build a community of research practice to help teacher educators develop their own professional identities at a University in New Zealand. Building a research culture is recommended by them as an important step truly to realise a community of research practice. Difficulties include factors such as heavy workload, time to think differently as academic teacher-educators, time for research and finding time to have practice in schools and school experience. All these difficulties cannot be easily changed or overcome without transforming the research culture and

reconceptualising the power and authority relations in the current educational system. Lave and Wenger had themselves identified the problem even though their study explicitly avoided direct analysis of schooling (Lave & Wenger, 1991).

Building a research culture in a school community is additionally challenging because of practitioners' perception of theory itself as problematic within that community. Tummons (2012) stresses the issue of theory being problematic in the use of educational research. The theories published in books, journal articles or papers, are codified and explicit. Yet, as has been argued in the previous section of this literature review, practitioners may tend to value tacit knowledge more than codified theories. Following this, practitioners will tend to value practical experiential knowledge more than research findings produced elsewhere, for the very good reason that the learning of this tacit knowledge derived from practical experience is usually seen as essential to developing one's competence as a practitioner. This view is held in different cultural contexts, and typified by this statement in a publication of the *National Society for the Study of Education* in the United States:

One's ability to acquire tacit knowledge on the job will be a key factor in one's success or failure as a teacher. We suspect that failure to acquire sufficient tacit knowledge will result in rapid frustration and possible early burnout (Sternberg & Caruso in Eisner, 1985:148).

Hodkinson (2004) makes the point that only through engaging in some research will someone be enabled to learn to research. Tummons (2012) interprets this as meaning that the knowledge one might learn from doing research could be referred to as tacit

knowledge. Tummons (2012) further argues that the problem and danger of relying on doing research in order to increase research knowledge in general might be alleviated if this activity is integrated with the production of the artefacts considered as learning-and-teaching resources that will aid the trajectory of CoP members towards a fuller participation:

novice researchers learn about doing research through *both* participation in actual real-life research *and* through the use of reified artefacts (methods books, courses and such). These two aspects of learning about research are inextricably intertwined: that is to say, each both sustains and supports the other.
(Tummons, 2012:306)

In communities of practice knowledge and theories become reified in artefacts such as local policy documents and procedures, or workshop materials for professional development. These reifications codify and make explicit the knowledge of either the community or segments of the whole profession. However, precisely for this reason, it is possible that practitioners in their general scepticism of codified knowledge as theory and abstract concepts will also be sceptical of the perceived usefulness of those artefacts, unless they have participated fully in the production of them.

2.6 A sense of agency

Lave and Wenger (1991:50) situate their situated learning theory in an intellectual trajectory of sociocultural theory that passes through Bourdieu (1977) and Giddens (1979; 1984). The aim of that theoretical approach is to ‘break with the dualisms that have kept persons reduced to their minds, mental processes to instrumental rationalism, and learning to the acquisition of knowledge’ (Lave &

Wenger, 1991:50). In seeking to move away from ‘a picture of a person as a primarily “cognitive” entity’ (Lave & Wenger, 1991:52), this approach is promoted as enabling a better understanding of how people do not just relate to each other in a particular context but, through those relations, continually constitute and renew that context, as well as their own identities.

Activities, tasks, functions, and understandings do not exist in isolation; they are part of broader systems of relations in which they have meaning. (Lave & Wenger, 1991:53)

Hence this theoretical approach, and situated learning within it, is primarily a relational theory of practice (Bourdieu, 1977; 1990; 1998). This research study focuses on how practitioners give meaning and value to educational research in relation to their practice. For this reason, practice has a certain primacy here, as it also does in realist social theory as exemplified by the work of Archer (1995); see also Eteläpelto et al. (2013:50). In both instances, practice is not viewed from an individual perspective. As Wenger (1998:47) points out:

The concept of practice connotes doing, but not just doing in and of itself. It is doing in a historical context that gives structure and meaning to what we do. In this sense, practice is always social practice.

Such a concept of practice includes both the explicit and the tacit.

The question then arises: who are the ‘we’ referred to in social practice? The most general answer would be ‘human beings’ or ‘people’ but social theory has developed the concepts of agent and agency for the purpose of analysing social practice as something distinct from the more general notion of behaviour.

The concept of agency has become increasingly popular in education, the social sciences, and psychology, and also working-life studies and gender research (Eteläpelto et al., 2013: 46).

As these authors emphasize, this is particularly so for the study of professional practice. But as they also point out, this means that the concept of agency is utilized from different perspectives and theoretical frameworks, depending on researchers' aims and concerns (see also Vähäsantanen, 2015). Their own brief literature review (Eteläpelto et al., 2013: 46-58) is a useful summary guide to the most widely cited of those frameworks, though the literature on agency is already so extensive that it would be beyond the scope of this study to review it in a comprehensive way. What will be presented here is a brief discussion of the most salient conceptions of agency for the analytic purpose of this study, together with a short rationale for their selection.

2.6.1 Agency and Structure

Agency in social practice is necessarily a matter of *social* agency. Although all conceptions of agency acknowledge the importance of social context and the need to account for the actions of others within that context, those conceptions that are derived from a perspective of individuals as independent entities are likely to have limited adequacy for understanding communities of professional practitioners working co-operatively or collaboratively.

Of those conceptions, the work of Bandura (2001;2006) on self-efficacy is probably the most widely cited, not least because 'there is a good deal of empirical evidence demonstrating how subjects' self-efficacy, consisting of their beliefs or capacities and competences to act and achieve, represents the most important factor explaining individual agency' (Eteläpelto et al., 2013:57). There is a circularity of argument

here if agency is defined in terms of an individually perceived ability to ‘act and achieve’ but, apart from this problem, if beliefs lead to self-efficacy that leads to positive action then it is hard to avoid voluntaristic assumptions about whether or not individuals will take up the opportunities for engagement and learning development presented to them. Bandura seeks to overcome this by arguing that agency and socially environmental conditions are in effect mutually constitutive.

[P]eople act on the environment. They create it, preserve it, transform it, and even destroy it, rather than merely react to it as a given (Bandura, 2006:167).

Despite the fact that Bandura and Giddens, as a psychologist and a sociologist respectively, resolutely ignore each other’s theories, their work does tend to share this proposed solution to what has been long recognized as a central problem in social theory, regardless of disciplinary emphasis.

The ‘problem of structure and agency’ is now a familiar phrase used to denote central dilemmas in social theory... [It] is not one which imposes itself upon academics alone, but on every human being.

For it is part and parcel of daily experience to feel both free and enchained, capable of shaping our own future and yet confronted by towering, seemingly impersonal, constraints. (Archer, 1995:65).

The purpose here is not to evaluate the respective claims to adequacy of these and other social theories, which would be a major research task in itself, but merely to clarify how terms and concepts are being applied to the analysis of the data collected in this study. Nevertheless, discussion of any conception of agency should acknowledge its centrality to this continuing problem.

In accounting for what Archer calls ‘daily experience’, any conception of agency must deal with its relation to that of structure, as ‘context’ or ‘environment’; it is whatever appears to stand over and against the free rein of subjectivity in the exercise of agency. This is because agency is seen to embody an active ingredient — reference to ‘passive agency’ would seem to invoke an oxymoron — so whatever appears to place limitations on that ingredient also has to be brought into clear relation to it.

Giddens’ (1984) theory of structuration is relevant here in that Wenger explicitly endorses this theory in developing his concept of communities of practice (Wenger, 1998:281). It is perhaps not surprising that this theory is similar to Bandura’s self-efficacy theory, because Giddens’ concept of agency is also firmly rooted in the individual:

Agency concerns events of which an individual is perpetrator, in the sense that the individual could, at any phase in a given sequence of conduct, have acted differently. Whatever happened would not have happened if that individual had not intervened.
(Giddens, 1984:9)

Giddens’ conception implies that when individuals work together, events could always be otherwise, depending on who is or is not ‘intervening’. It follows that an individual member’s degree of engagement in a community of practice is indicated by the extent to which that individual is able to act as a social agent to negotiate with others in shaping ‘the meanings that matter’ (Wenger, 1998:197) to the community. This aspect of social agency is clearly important for the concerns of this study with its focus on the meanings of educational research for its participants.

There is, however, another element of Giddens' structuration theory that has been subject to criticism in the sociological literature (see Eteläpelto et al., 2013:49). If agency and structure are mutually constitutive at every moment, their analytical inseparability poses problems for understanding how practitioners intentionally work collaboratively to use their professional knowledge over time, but not in conditions of their own making or according to relations of power and authority that present themselves to newcomers as given and pre-existent.

As noted at the beginning of this section (2.6), Lave and Wenger's theory owes a great deal to the social theory of Bourdieu as well as Giddens. Again, there are more similarities than are usually acknowledged. For Bourdieu, the relationship between agency and structure is mediated by the concept of habitus. This mediation is intended to free that relationship from 'mechanical determinism'

(Bourdieu, 1977:95). What is habitus?

As an acquired system of generative schemes objectively adjusted to the particular conditions in which it is constituted, the habitus engenders all the thoughts, all the perceptions, and all the actions consistent with those conditions, and no others. (ibid.)

This makes it a very wide-ranging concept, and moreover one that describes processes internal to the individual. 'The habitus is necessity internalized and converted into a disposition that generates meaningful practices and meaning-giving perceptions' (Bourdieu, 1984:166). This aspect would appear to make it a good candidate for conceptually explaining the phenomena on which this study is focussed, but this emphasis on internalization moves the mediation towards an individualistic conception of agency.

On the structural side of the mediated divide is the concept of ‘field’: ‘a separate social universe having its own laws of functioning independent of those of politics and the economy’ (Bourdieu, 1993:162).

Its structure, at any given moment, is determined by the relations between the positions agents occupy in the field... a change in agents’ positions necessarily entails a change in the field’s structure. (Bourdieu, 1993:6, *Editor’s Introduction*)

In other words, ‘field and habitus are mutually constituting’ (Grenfell & James, 1998:16). This, together with repeated discussions of habitus throughout Bourdieu’s writings as the source of ‘life-style’ built up over an individual’s lifetime, (summarised in Bourdieu, 1984:167) suggests that, however useful Bourdieu’s problematic of field, habitus, social positions and agents might be for studies of individual teachers’ career trajectories and their development of professional identities, it tends to be too coarse-grained for a study such as this one, which is time-limited with respect both to the participants’ situation and the researcher’s data collection feasibilities.

2.6.2 Developmental Perspectives

The insufficiently theorized conception of temporality in Giddens’ theory, and the dependence of structural properties on the internal capabilities of individual agents in the work of both Giddens and Bourdieu, have been significantly addressed in the work of Archer and of Biesta respectively.

Because “structure” and “agency” are phased over different tracts of time, this enables us to formulate practical social theories in terms of the former being prior to the latter, having autonomy from it and exerting a causal influence upon it’ (Archer, 1995:183).

In this view, for example, one could study the relations within a structure schooling that both constrains and enables a research-informed implementation of the curriculum, where these relations pre-date the day-to-day activities of the social agents presently in the school. Just because those present-day social agents might daily re-constitute that structure and be constituted by it, this does not mean that those structural relations cannot be analysed separately from the actions of those agents. These different temporalities inform Archer's developmental perspective on agency:

[T]he self-same process by which people bring about social transformation is simultaneously responsible for systematically transforming agency. In other words, people collectively generate the elaboration of structure and culture, but they themselves undergo elaboration *as* people at the same time.
(Archer, 1995:253)

Biesta and Tedder's conception of agency also implies a developmental perspective and hence incorporates an emphasis on temporality (Biesta & Tedder, 2006;2007). Following Emirbayer and Mische's (1998:963) conceptualization of 'human agency as a temporally embedded process of social engagement', they adopt those authors' proposal that agency consists of 'a configuration of influences from the *past*, orientations towards the *future* and engagement with the *present*' (Biesta & Tedder, 2007:135). This temporal configuration maps what they call 'agentic orientations' onto particular combinations of routine, purpose and judgement (Biesta & Tedder, 2007:146). The ability of individuals to change and re-configure their agentic orientation is crucial, they argue, for determining the quality of individuals' engagement with their context. Their reflexive ability to do this

means that they can ‘*alter their own structuring relationships to the contexts of action*’ (Emirbayer & Mische, 1998:1009; emphasis in the original). For Biesta and Tedder, this process is the same thing as achieving agency. Here it can be seen how, once again, the most important element in the concept of agency is deemed to be its transformative effect. Specifically, for Biesta and Tedder, the critical advance in understanding is that agency as well as context is transformed.

Agency is not some kind of ‘power’ that individuals possess and can utilise in any situation they encounter. Agency should rather be understood as something that has to be achieved in and through engagement with particular temporal-relational contexts-for-action. Agency, in other words, is not something that people have; it is something that people do. (Biesta & Tedder, 2007:136)

Because agency is something achieved rather than possessed, education and learning development is returned to the centre of a conception of agency, with an obvious attraction for those concerned with professional development.

This conception is a significant move away from seeing agency exclusively as an attribute of a person, towards a more relational concept involving transformative aspects of context and experience. It also introduces the idea of agency as a developmental project undertaken by practitioners, hence the appropriateness of their concept for those researchers using narrative inquiry and similar methodological approaches to research ‘learning lives’ and the life stories of educational professionals. It is not quite so appropriate for this research study, where the focus is on teachers’ orientation towards educational research and where teaching practitioners were interviewed over a short period in specific situations.

There is a further, more important reason that this concept may not be entirely appropriate. As Biesta and Tedder admit, their conception is principally an individualistic one (Biesta & Tedder, 2007:147). When agency is viewed from an individual perspective this means that negotiability, which according to Wenger (1998:197-206) is an essential feature of communities of practice, is inevitably regarded from that perspective as entailing a loss of agency and power to shape meanings and events, even if it is acknowledged that what might be gained in return is a share in collective agency.

What would be perhaps more relevant is a concept of social agency where negotiation and collaboration are seen more positively as empowering and enabling processes. It would regard social agency as a property of the relations between participating individuals rather than of the individuals themselves. This conception would regard negotiation and collaboration as relations of social agency with properties not reducible to the individual level.

2.6.3 Agency as a relational property not an attribute

The concept of agency developed by Barnes (2000) suggests a way forward in this respect. For him, agency is a matter of humans' sociability; this is manifested in what appears to be a paradox. On the one hand, we treat each other as people who are free at any point to choose how to act, and so can be held accountable for it. On the other hand, we do not act completely freely, because in order to be granted this responsibility we must make ourselves susceptible to other people's constraints on

our actions. Barnes' point is that we are only regarded as free to choose in as much we show in our choices that we are not free to choose, because we take others' interests into account. Individuals are only able to access the benefits of agency by acknowledging mutual susceptibility through engaging in negotiation and collaboration.

The discourse of agency is so closely associated with an ideology of individual freedom and the value placed on the ability to act freely that it is very difficult to see agency as something that is only fully explicable as a property of the network or community we engage in. One way of understanding this social relation is the use in everyday language of 'agent' to denote a person authorised to act on behalf of others. The important point about this authorisation is that the person as agent is granted the right and responsibility to act freely, as long as that freedom is exercised with regard to the interests of those granting this. If that authorisation becomes mutual, a community becomes possible.

This way of conceptualizing agency can also be applied to teachers' practice. Firstly, teachers relate to each other on the basis that their professional status is one of being free to choose how to act responsibly within perceived institutional constraints. This status of relative autonomy is one that they strive to achieve, maintain or protect actively, to align it with their state as social agents. Secondly, teachers' status is also that of contracted employees tasked with carrying out functional roles. In other words, from the standpoint of educational authorities, located both inside and outside schools, teachers are the instrumental agents of the education system, where they are expected to implement policies as operationalized at the school level. They are held

accountable for this agentic role whilst at the same time being expected to act in the interests of the students in their charge.

It is in the nature of disciplinary organizations that the intensity of surveillance inside inhibits direct control from the outside... The head is in 'authority' over the teaching staff, but such authority cannot be exercised in the same way as teachers endeavour to control the conduct of children in their classes... it is intrinsic to disciplinary power that what goes on in the 'power container' of the school has a significant degree of autonomy from the very outside agencies whose ethos it expresses.
(Giddens, 1984:138-139)

How do teachers balance the two sides of their agentic status? They do this collectively whenever they act by means of negotiation, identification and reification. Even so, teachers' actions will still be within a relatively narrow range delimited by institutional constraints. This freedom to act within certain constraints can be regarded as a necessary function of their role because it is never entirely routine and can never be made explicit in every detail. Therefore, it could be said that their status as agents of the education system necessarily must recognise to some extent their state as freely acting social agents. The smaller the extent of that recognition by authorities at all levels, the more teachers will see themselves as having to face what Clandinin and Connelly (1995:14) call 'epistemological and moral dilemmas', which Barnes would see arising from tensions in the mis-alignment of state and status and which are experienced by practitioners as a struggle for agency.

To sum up, Barnes' conception of agency provides what is likely to be the most analytically productive. It is not without its limitations, though, and the importance

of temporality for the developmental perspective introduced both by Archer and by Biesta and Tedder is not evident in Barnes' conception. It leaves the concept of community of practice critically untouched, because that concept relies on Giddens' notion of agency, which shares with Bandura's work on self-efficacy a tendency towards voluntarism. Nevertheless the social responsibility emphasized by Barnes enables the personal commitment to a CoP to be viewed as empowering rather than diminishing an individual practitioner's capabilities. This aspect of agency as mutual ethical commitment is distinctly different from Giddens' individual 'knowledgeable agents, reflexively monitoring the flow of interaction' (Giddens, 1984:30). Although it must be acknowledged that no concept of agency currently employed in the social sciences is fully adequate to the research problem addressed in this study, it will be Barnes' concept that is adopted here as the most appropriate for understanding 'human beings as responsible [social] agents engaged with their environment through the mediation of their inheritance of [socially distributed] knowledge' (Barnes, 2000:151). How teachers' orientation towards research, their engagement with it and in it, can be understood as a form of that mediating activity will be considered in the next section of this chapter, where an additional concept will be reviewed with respect to that orientation and engagement.

2.7 Recontextualization

In his later work, Basil Bernstein sought to build a model of how knowledge in the form of research outcomes becomes transformed into explicit, codified knowledge

that is then transmitted in published artefacts such as textbooks and other kinds of teaching resource. His model is a very complex and intricate one, and it is beyond the scope of this literature review to evaluate it fully. For the purposes of this research study, the most important aspect of the model is his use and development of a concept of recontextualization. A concept cannot be simply extracted from a highly systematized model and applied straightforwardly to different, though related, issues and circumstances. Nevertheless, with appropriate modification, it can be considered fruitfully in relation to understanding how school practitioners approach explicit, codified pedagogic knowledge that has been derived transformatively from educational research outcomes, and how that approach might compare with their approach to other explicit, codified subject knowledge, which practitioners use daily as ‘curriculum content’.

Bernstein sees recontextualization as central to the discourse of pedagogy:

‘pedagogic discourse is a recontextualizing principle’ (Bernstein, 2000:33; emphasis in the original). This principle ‘selectively appropriates, relocates, refocuses and relates other discourses to constitute its own order’ (ibid.). Dowling, following Bernstein, provides a more succinct definition that focuses on social practice rather than discourse; he has applied it in his research on the teaching of mathematics (Dowling, 1998; 2008). Recontextualization is ‘the subordination of the practices of one activity to the principles of another’ (Dowling, 2009). In his earlier, slightly longer definition, he argues that this subordination arises from differences in the structure of social relations between two kinds of activity: —

[I]nsofar as an activity can be empirically described as exhibiting a particular structure of social relations, then this structure will tend to subordinate to its own principles any practice that is recruited

from another activity. I want to refer to this position as the *principle of recontextualization*. (Dowling, 1998:24)

For Dowling, this is not just a matter of moving from one discourse to another, though it is similar in some respects to the task of translation between languages. Like translation, it is not merely a technical process but one that always involves judgements about what happens when the relations appropriate to one context, which enable a practice to be meaningful, are no longer seen to apply.

The problem of recontextualisation, then, is not limited to movement between languages, but to any action that views one practice from the perspective of another. (Dowling, 2010:3)

Bernstein is of course aware that discourse has to be connected to activity in order to have an effect. He does not employ the concept of context in a wider sense, but instead identified what he called two ‘recontextualizing fields’: —

We can distinguish between an *official recontextualizing field* (ORF) created and dominated by the state and its selected agents ... and a *pedagogic recontextualizing field* (PRF). The latter consists of pedagogues in schools and colleges, and departments of education, specialized journals, private research foundations. (Bernstein, 2000:33)

Here, with a conception of a field that seems to be influenced by Bourdieu’s (see section 2.6 above), Bernstein makes a distinction between the activities of policy makers and inspection regimes operating under the aegis of the state (the ORF), and what is in effect the whole of the education profession (the PRF). However, this study is concerned with understanding the differences and separate forms of activity within the PRF. To the extent that both fields of activity engage in recontextualizing, it is clear from the preceding review of the literature on the use or non-use of

academic educational research that the process is not exactly the same for school teaching practitioners as it is for academic researchers, at least with respect to producing explicit knowledge that would be published in ‘specialized journals’. It is likely that something different is involved if the primary aim is one of meeting the needs of particular children in a particular school community, rather than one of building a research career. Hence this study will use Dowling’s conception of recontextualization in order to explore how, within the PRF, teachers approach that explicit, codified research knowledge, in a context where the products of the ORF have to be taken into account.

2.8 Praxis and ethical commitment

It might be further expected that teachers would prioritize ‘know how’ in a practical situation above knowing that there are research-informed codified principles and procedures for pedagogy. However, the matter is not quite so simple. It is not about ‘knowing how’ versus ‘knowing that’; it is more about the relations between the two as they are integrated into knowledgeable professional practice. Hammersley (2005) argues that practitioners who share the view that propositional knowledge is more valuable actually do not use it much in everyday situations. He makes it clear that neither propositional knowledge nor codified knowledge should be granted privilege over other, more situated kinds of knowing. Metaphorically, they can become regarded as polar opposites, with practitioners and researchers each valuing one pole positively and the other negatively. Whatever the valuing, this opposition is endorsed and maintained. The challenge is to transcend this polarity, which reproduces in a different form the traditional cultural polarity between theory and practice. The concept of praxis, it has been argued (Carr & Kemmis, 1986:190-192;

Kemmis, 1988/2007; Smith, 1999, 2011), could become a concept expressing and promoting that transcendence.

Praxis has its roots in the commitment of the practitioner to wise and prudent action in a practical (concrete historical) situation. It is action which is informed by a 'practical theory', and which may, in its turn, inform and transform the theory which informed it. Practice is not to be understood as mere behaviour, but as strategic action undertaken with commitment in response to a present, immediate, and problematic action context. (Kemmis, 1988/2007:172).

So this literature review and conceptualization of the research study returns at its end to where it began, with the challenge laid down originally by Stenhouse in the 1970s and then renewed by Carr and Kemmis in the 1980s, to overcome the problem of the separation of practitioners and researchers, of theory and practice, of tacit and explicit knowledge. It is a problem that itself was then re-conceptualized by the debate initiated by Hargreaves in the 1990s over the purpose, usefulness and quality of educational research, a debate that in turn seemed to re-ignite the paradigm wars (Gage, 1989/2007; Oakley, 2000) expressed in the dualities of positivism and interpretivism, and of quantitative and qualitative approaches. The problem has then been further re-configured in this century in policy debates which appear to centre on the kind of research evidence that would count in evidence-based practice and evidence-informed policy. Throughout these various mutations and inflections, the question of what professional teachers actually do, or think they do, in relation to whatever is conceived as educational research remains problematic. It is a question that in its widest sense underpins the more focused research questions that were derived from this review of the literature as guided by the aims for this research study. It is a question whose answer appears to lie in the concept of praxis. This concept seems to express an ideal for teachers' professional social practice

embodying different kinds of knowledge that may or may not be created by research, against which actual social practices might be studied, yet even here the ideal has been associated with one kind of research activity, action research, whose value itself remains contested.

Even the brief exposition by Kemmis of the concept of praxis cited above does not demonstrate that action research, with its distinctive methodology, is intrinsic to that concept. The concept itself has a much longer history, as the Greek roots of the word imply and as Carr and Kemmis themselves acknowledged (1986:190). Within the domain of education, praxis has undergone a long conceptual journey whose end is not inevitably that offered to it by the proponents of action research (Smith, 1999; 2011). With the development of sociocultural theories of learning (Wenger, 1998 provides a useful overview), and in particular with the developing conceptions of social practice in education that imply objects of analysis and research that are less focused on the individual and more on the groups to which individuals belong, the concept of praxis begins once more to take on a different shape when viewed through the lens of collaborative networks, learning communities, or more generally communities of practice. This perspective on social practice is necessary for connecting questions of individual trajectories of learning development to the enhancement of support for teachers' engagement in research, which takes their changing professional identities into account by establishing ethical conditions of mutual trust (see Fielding et al., 2005).

That is, what does *praxis* look like in practice? Writing at the turn of this century, Elliott criticized Hargreaves' critique of educational research for accepting 'a set of prevailing assumptions about the nature of social practices' (Elliott, 2001:560). One

common theme threading through all of the ways for bringing educational practice and research closer together, and which have been considered in this literature review, is that the social practices of teachers are continually described and scrutinized, yet rarely theorized in relation to research. Elliott calls for a vision of educational research ‘which places the judgement of teachers at the centre of the research process... The current discourse is uninformed by any theory about the nature of *educational* practice, and therefore excludes any considerations of the implications of such a theory for educational research’ (Elliott, 2001:561;572-573). The concept of praxis, by bringing together both epistemological and ontological aspects of teachers’ social practice in terms of the ethical commitment entailed by teachers’ ‘capacities to exercise wisdom and judgement in the unpredictable circumstances they regularly encounter’ (Elliott, 2001:560), might help this research study to contribute to the development of such a theory, if it can become an explanatory concept for understanding how teachers value and conceive the meanings of research in the course of that practice. Situated in an emergent theoretical formulation of educational practice while being uncoupled from an association with any one kind of educational research in particular, praxis also might then become a way of conceptualizing not just the ethical commitments of professional practitioners but also, reflexively, those of researchers collaboratively seeking to understand the role of research in their practice. Accordingly, it is the ethical and methodological issues raised by this conceptualization, and hence central to this research study, to which attention must now turn.

2.9 Conclusion

The initial problem of why teachers have apparently been making insufficient use of educational research has been conceptualized in the literature in identifiably different ways. These differences were shown to be related to educational research itself as being a problematic and contested entity. Debates over its purpose and teachers' role in it are themselves derived from differences over the conception of education and how teachers are expected to regard their own professional practice.

Despite educators such as Stenhouse, Carr and Kemmis, and Tripp in the second half of the twentieth-century arguing that teachers should conceive their practice as needing to go beyond immediate problem-solving, contemporary policy and practice emphasizes 'what works' and the need for evidence. This is given priority over concerns with how pedagogic practice works or even why it works. The emphasis follows logically from a conception of education as being outcomes-based, rather than process-based. Teachers, however, must be concerned with process because they are at the heart of it. In their commitment to improving their practice a process-based view of education and the curriculum is likely to be more meaningful, yet they have to carry out that commitment in a culture of performativity, which requires them to act in accord with an outcomes-based view. Negotiating their way between these two conceptions becomes a major challenge for teachers in their daily practice.

This is the professional environment in which teachers must make research meaningful for them, as part of their sense of professional identity and development.

That environment has been shaped by the four main approaches identified in the literature for enabling teachers to become more engaged with and in research, and for overcoming the traditional separation of academics and practitioners, itself derived

from a theory-practice split that implies a separation of the different kinds of knowledge that teachers have to re-integrate.

Hence this chapter has reviewed the problem of professional knowledge, what it entails and how the valuing of different kinds of knowledge contributes to it.

Professional values cannot be considered without also considering questions of how teachers seek to develop and maintain a sense of agency and ethical commitment.

Because, however, the concept of agency is also problematic in social theory, a brief review of the literature on different conceptions concluded that none is fully adequate to understanding how teachers work together to make research engagement meaningful. Nevertheless, Barnes' conception, which regards agency as a relational property of social interaction in communities rather than as an attribute of an individual, appears to be the most appropriate to this research study.

Finally, it has been argued that there are two other key concepts, recontextualization and praxis, which emphasize sociality and collaborative practice in understanding how teachers bring different kinds of knowledge together to fulfil a professional ethic. These complete the conceptual framework within which the case-study research design used here has been developed. The details of that design will be considered next, in Chapter Three.

Chapter Three: Research Design Rationale and Methodology

3.1 Introduction

The purpose of this chapter is to present the research design that was developed in order to collect data and analyse it so that the outcome of the process would enable the research questions to be addressed. This chapter will also present the rationale for that research design. The rationale is guided by the principle that within that design there should be a consistent and coherent approach to data and data gathering, according to specific principles, concepts, procedures and explicit ontological and epistemological axioms about the status of that data with respect to conceptions of knowledge and reality. That is, the methods chosen for collecting data and analysing it should not be assembled or used in an arbitrary manner, but should be justifiable within that consistent and coherent approach, thereby constituting a methodology.

For this reason, this study follows Newby (2010:51) in asserting that there is a meaningful distinction between research methods and research methodology, and that the latter should not be reduced to the former. Acknowledging that in educational research there is no single methodology that all researchers endorse, Newby identifies four methodologies within what he regards as qualitative, quantitative and mixed methods approaches as paradigms (Newby, 2010:44-45). As will be seen in the consideration of the researcher position in section 3.2 of this chapter, this way of categorizing paradigms has itself been challenged. However, Newby's conception of a paradigm is that 'it links research philosophy and the

practice of research' (2010:45). Whether or not that paradigmatic linkage is best regarded in terms of a qualitative-quantitative distinction is a question beyond the scope of this thesis. What, however, the distinction enables Newby to do is to identify four kinds of methodology within a qualitative paradigm and two within a quantitative one. The four qualitative methodologies are: (a) ethnography, (b) case study, (c) evaluation, and (d) action research (Newby, 2010:65). He identifies the two quantitative methodologies as (a) 'the survey and analysis approach' and (b) 'the experimental approach' (Newby, 2010:98, 106).

The proposed methodological approach adopted in this research study is that of a multiple-case study. The importance of cultural factors in this study will be considered as part of the rationale specifically for the choice of a multiple-case design as providing a cultural contrast relevant to the main research questions. What will be presented first is a consideration of the position of this case-study researcher in relation to the ontological and epistemological status of the data collected, with particular reference to reflexive understanding. This will be followed by a justification for the choice of a case study approach as one that will enable the research questions to be addressed, as well as meeting the research aim of contributing to the practical and theoretical understanding of practitioners' use of research in more general terms, even though case study findings cannot be generalizable in the same way that those from a survey or experimental approach might be. The relation to the research participants will then be considered, including the ethical issues that arise. The risks to the credibility of the research will be identified and the steps taken to minimize them will be reviewed. The methods of data collection and analysis will then be considered, with the justification for

selecting interviews as the principal method being followed by an overview of the implications of that decision. Finally in this chapter, the chosen analytic approach to the data will be set out, the implementation of which forms the substance of all subsequent chapters of this thesis.

3.2 Realism and reflexivity: approaches to research knowledge

3.2.1 Knowledge about knowledge and reality

As the main research question is concerned with how practitioners regard research with respect to its usefulness for practice, this would imply that an appropriate methodology for addressing it should be one that is adequate to the task of understanding perceptions and values. That is, a methodology needs to be chosen that will enable data to be collected that is amenable to the analysis of meanings rather than just performance or behaviour. In educational research, this in turn implies a methodological approach whose ontological stance and epistemological assumptions grant legitimacy to meanings. Broadly, the contrast in assumptions underlying what has been called positivism on the one hand and constructivism on the other suggests that those associated with constructivism will be more fruitful for making sense of issues relating to meaning and value. Constructivism is itself a term that refers to a variety of ontological and epistemological premises, though all grant a central place to meaning and experience. In educational discourse, constructivism as a philosophy promoting particular methodologies has tended to move from the study of individuals as the object of analysis to the investigation of social practices and relationships, whether of individuals in a social context or of social groups

influencing their individual members. This movement is mirrored in the theoretical development over time of its main proponent, Jean Piaget, who has been credited with first using the term constructivist within an educational theoretical perspective (Steffe & Gale, 1995). Social constructivism is often used to refer to those who consider themselves to be building on the theoretical and practical work of Lev Vygotsky. This work is also described as a ‘sociocultural approach to learning and development’ (Wertsch, 1991), but the term social constructivism seems to be more widespread in Anglo-American educational discourse, probably because of the influential work of Jerome Bruner who sought to bring the theoretical perspectives of Vygotsky and Piaget into a more productive harmony. ‘Constructivism’ evokes Piaget’s perspective, at least for the majority of his work, and ‘social’ evokes that of Vygotsky’s perspective with its emphasis upon individual development being preceded by social interaction, thereby bringing the two perspectives together in one noun phrase. Note that what this integrating phrase excludes is a notion of the ‘cultural’ which is retained in the designation of ‘sociocultural’ theory. Hence, social constructivism has often encouraged studies whose locus is the classroom or groups of learners within it, with a situational rather than a cultural emphasis. The research study being undertaken here cannot therefore be regarded as adopting a social constructivist approach in the fullest sense because cultural issues will need to be taken into account. The main problem with social constructivism for the purposes of this study is with the implications of its epistemological stance, which appear to regard all forms of knowledge as being of equal value, and indeed seems to work against a notion of knowledge being differentiated in a variety of forms.

Michael Young (2008) argues that one needs to allow for different kinds of knowledge. This is a more complex problem than can be explained from a position of social constructivism, as will now be argued.

The main research question's focus on meanings and value conventionally leads to a methodological approach that is qualitative rather than quantitative. This distinction has been criticised by Pring (2004b:44) as a 'false dualism'. He argues that the dualism is false because it rests upon an assumption that there are both epistemologically and ontological differences that can be intrinsically related to the difference between qualitative and quantitative approach respectively.

However, in aiming to moving beyond this false dualism, it is not enough to question the idea of an intrinsic relationship between particular methodological approaches and corresponding ontological and epistemological assumptions. It is also necessary to question the dichotomy of assumptions. Both Pring (2004b) and Young (2008) argue against this dichotomy, although they do so from different perspectives. The different perspectives stem from emphasising ontology on the one hand, and epistemology on the other.

For Pring, how we come to understand the reality of a research setting may vary from one social group to another, yet this variation, which implies that all knowledge is socially constructed, itself depends on there being 'stable and enduring features of reality, independent of us' (Pring, 2004b:56) which make such variation possible.

For Young, an emphasis on epistemology is crucial because it leads to a view that knowledge is necessarily differentiated between the kinds of knowledge produced in particular social, cultural and historical circumstances and the kinds of knowledge that in their applicability and reference go beyond those particular circumstances.

This means that knowledge is not wholly dependent on social practices, but rather is differentiated between knowledge which arises from specific practices and knowledge which transcends the practical conditions of its production. Young (2008:89) refers to this differentiation as being between ‘theoretical and everyday knowledge’. Furthermore, he regards this differentiation as being ‘fundamental to what education is about’ (ibid.).

It seems reasonable to regard Young’s differentiation between theoretical and everyday knowledge as having a corresponding counterpart in the distinction between tacit situated knowledge and explicit codified knowledge drawn upon in this research study. Indeed, Young himself in discussing types of learning process states that there are two types that ‘parallel the distinction between the tacit knowledge that is embedded in every practice... and the codified knowledge that is abstracted from practice for different purposes’ (Young, 2008:13). As both Young and Pring argue, the relationships between these differentiated kinds of knowledge, and between variations in how we understand reality, are themselves subject to change and give rise to differing social and cultural valuations as to what counts as the more valid kind of knowledge.

This raises the general question of the role of tacit knowledge as an important element in the management of change in learning organizations, including organizations that are not necessarily educational ones. For a review of the literature concerning this general question, see Venkitachalam and Busch (2012). Here, this research study is concerned with exploring whether the ways in which teachers regard research may be explained in terms of these changing epistemological and ontological relationships.

This perspective should not be viewed, however, in a narrow sense. Instead of seeking to adhere in some kind of purist way to a ‘social realist’ position as defined by Young, this study merely adopts a broadly realist perspective, in that it also shares elements with what Maxwell (2012) has conceptualised as a critical realist position. In particular, it is aligned with Maxwell’s notion that a critical realist can be prepared to accept ‘the validity of causal explanation in single cases’ where the causal process may not be amenable to empirical observation yet is nevertheless considered to be real in its effects. As Maxwell points out, this aligns with Becker’s argument that ‘qualitative findings can be generalized — not by simply applying these findings to a wider range of phenomena, but by developing a theory of the processes involved, one that applies to other settings, but may result in different outcomes when the contextual circumstances differ’ (Maxwell, 2012:164). Further, this broadly realist perspective is also ‘compatible with an interpretive perspective on the understanding and analysis of meaning [and] ... meanings as real phenomena, separate from behaviour or social structure’ (Maxwell, 2012:179). For this reason, such meanings are worth investigating, and the data collection and analysis in this study was focused on finding out as much as was feasible about those meanings as about the actions to which participants claimed they applied. Within this realist perspective, what is retained from the social constructivist position is that researchers cannot be completely separated from what is researched, so each will influence the other. This implies that researchers establish a reflexive understanding of their position in the research process.

3.2.2 Reflexive understanding

A straightforward definition of reflexivity in relation to social research is provided by Davies: —

Reflexivity, broadly defined, means a turning back on oneself, a process of self-reference. In the context of social research, reflexivity ... refers to the ways in which the products of research are affected by the personnel and process of doing research.
(Davies, 2008:4)

Although Davies was writing about ethnography, she explicitly states that in her view this is an issue for all social research, so methodologically it is important to take those ways into account in this study. By doing so, not only is the recognition maintained that all of the data is the product of a social interaction involving the researcher with the participants, but it also enhances the credibility of the research with respect to validity and reliability. This latter aspect will be discussed in section 3.5 of this chapter. Substantively, in this research study, there is a further aspect to be considered. This study's research questions focus on how participants approach research, make it meaningful and give it value. So, included in the research design, its implementation and the reporting of its findings, should be a consideration of what that design and implementation embodies about the researcher's own view of research and how it should be used. Given the research topic, it would be a kind of research blindness not to consider the researcher's orientation to research as part of the process of exploring the participants' orientations to it. The only practical utility that applies to this research study is that it conforms to the requirements, scope and timescale of completing a doctorate. This excluded the choice of a research design that would involve a longitudinal study, or an ethnographic approach that might entail participant observation over a long time-period, or a large-scale survey.

Of the other choices of research design, the positive rationale for choosing a case study approach will be presented in section 3.3. Here it is the implications of incorporating reflexivity into any qualitative research design and implementation that need to be made explicit. What is set out here are the four main aspects of the research process undertaken where the researcher's values and participation might be considered to affect the research outcomes. Because the orientation to research necessarily involves the researcher's values, the first-person voice must be used to avoid awkward circumlocutions.

Firstly, in approaching research, if the researcher's agency is to be granted legitimacy then this should also be granted to the research participants' agency. Any research design, however well-intentioned, that has the effect of denying or minimizing the participants' voices or of dehumanizing the participants, by regarding them merely as carrying out functional roles in their educational activity, is unlikely to be a design that would enable an understanding of how participants regard research and make it meaningful.

This leads to a second aspect of reflexive understanding. A research design that does not just allow for the differentiation of knowledge but also does not allow for giving due weight to what Geertz (1983/1993) called 'local knowledge', is unlikely to be able to account for the contrast between context-dependent and context-independent research aims, with respect to the effect of this contrast on how participants approach research. A research design that does allow for the relative importance of local knowledge also enables a form of comparison between settings that in many respects might be thought to be incomparable. Only by attending to what is specific to a

situation can one begin to understand what it shares with others. Geertz discusses this apparent paradox.

It is ... one that welds the processes of self-knowledge, self-perception, self-understanding to those of other-knowledge, other perception, other-understanding... we are faced with defining ourselves neither by distancing others as counterpoles nor by drawing them close as facsimiles but by locating ourselves among them. (Geertz, 1993:181, 186)

This is the kind of reflexive understanding I have sought to bring into play in this research study. In moving between settings, I have regarded my approach as being less a matter of comparison than one of dislocation and relocation, to give local knowledge its due and to acknowledge that to engage in a like-for-like quest would be to miss its fulfilment. None of this is intended to imply that because Geertz was an anthropologist, and his work has been a major influence on ethnographic approaches to social research, this study actually adopts an ethnographic approach in a case-study disguise. Rather, it is because ethnographers such as Geertz have developed conceptually coherent ways of relating the context of situation to the context of culture that ethnographic techniques, including an understanding of the importance of researcher reflexivity in order to take one's own cultural position into account, provide a means of case comparison where more than one culture is involved. This comparison is not, however, the main focus of the case study, as the research questions show.

Thirdly, all educational research should aim to further the understanding of both learners and educators, so that the research might contribute to their educational benefit. In effect, this is an ethical commitment that is a positive guiding principle in

how I conduct research, even though this may not be seen as an ethical issue in the formal procedures to be followed and discussed in section 3.4 of this chapter.

Fourthly, because my own experience as an educational practitioner has been as a teacher of English in Shanghai, I retain an abiding interest in language and discourse as a dimension of human communication to be valued highly. Accordingly, any research design for which I am responsible must allow for this dimension to be considered explicitly; it should include methods of data collection that give value and legitimacy to spoken and written language; and analysis of the data collected should encompass a view of language as a human means of symbolic communication that is not reducible to its referential function, or which views it as some kind of transparent window on the world that gives unmediated access to a participant's ideas, concepts or their reality. In practice, this also means paying attention both to what participants say but also what is not said, yet which is presupposed in the kind of language they do use, such as the metaphors and idioms they employ. This will be seen to be particularly important in the discussion of findings (Chapter Six, section 2.5). So, within a reflexive yet realist framework, the choice of a case-study methodology for the research design will now be explained.

3.3 Research design

3.3.1 A case study methodology

A case study is an empirical inquiry that investigates a contemporary phenomenon (the “case”) in depth and within its real-world context, especially when the boundaries between

phenomenon and context may not be clearly evident.
(Yin, 2014:16)

As Yin himself points out, this definition of a case study emphasises that understanding the phenomenon being investigated cannot be achieved if ‘important contextual conditions’ (ibid.) relevant to that case are set aside. In this study, those contextual conditions concern both the relations between participants in the setting and the educational requirements and expectations coming from the wider social and cultural context. Other methodological approaches involve procedures for setting aside contextual conditions except as a starting point for the research problem. This is even the case with ethnography, that seeks to study a situation that is capable of being separated from its framing context. Here, understanding how practitioners view and use research is dependent on accepting that the concept and context of research is itself problematic. What research means to the participants, and how they might make specific instances of research meaningful to them, is part of the problem being studied. It is not about proceeding on the basis of a settled conception of research that is agreed and accepted by all participants and by the researcher. Hence the boundaries between phenomenon and context are not clearly evident, even though the boundaries of the case settings and the time periods for collecting data in those settings have been well-defined.

Newby (2010) summarises the other main characteristics of a case study. Firstly, it is distinctive as a methodology for seeking to learn from a particular situation or situations. It does not seek to minimize the features of the case specific to that case, but to learn from the local knowledge that attention to the particularities might provide.

Secondly, a case study is characterized by its fitness for exploratory as well as explanatory purposes. While other methodologies might also be aligned with these purposes, in a case study there is an intention to establish an understanding that can be used both in relation to existing theory and to other, specific situations, not by setting aside or transcending the particularities of the case but by paying attention to them. This is appropriate to this study's exploratory research aim.

Thirdly, a typical case study's methods of data collection are 'information assembly' and 'interview' (Newby, 2010:65). It is not that other methodologies might not use these methods; nor is it that these methods are uniquely appropriate to a case study. Rather, it is that the researcher's relation to the participants and to the case setting(s), as an 'external analyst' (ibid.) yet one who is neither seeking to make judgements (as with an evaluation methodology) about the situation, nor seeking to test propositions or hypotheses (as with an experimental methodology), results in these methods often being regarded as the most suitable, within a relatively short time-frame.

The first requirement in designing a case study is to identify the unit or object of analysis, which should not be confused with identifying a specific case setting (Yin, 2014:32-33). As the main research question indicates, this case study aims to find out how the educational practitioners who are its participants view their practice in relation to research and how, by engaging in their practice, they may draw upon different kinds of knowledge. Accordingly, the object of this research for both cases is a social grouping, whether this social grouping regards itself as a network or as a community of practice or merely as a group of practitioners with a shared professional aim.

The main issue with a case study methodology is how to resolve the relationship between the general and the specific so that there is justification for making reasonable claims for the case study findings to be transferable or generalizable beyond the immediate setting (Newby, 2010:51).

Every case study is a unique case. The question of typicality or representativeness is to some extent not a relevant question as in any interpretive study the meaning of sampling is not dependent on criteria of representation. Indeed, to refer to the selection of cases as ‘sampling’ is misleading, as this uses a term developed in experimental approaches and applies it to a different research paradigm. Stenhouse argued in a paper entitled ‘The Study of Samples and the Study of Cases’ that the two kinds of study are ‘complementary and necessary in educational research’ (Stenhouse, 1980:4), yet they remain separate approaches.

To make refined judgements about what educational action to take in particular cases lodged in particular contexts, we need much more information than can at present be reduced to indices and we need to present our conclusions in a way that feeds the judgement of the actors in the situation, a way that educates them rather than briefs them (Stenhouse, 1980:3).

And in order to find ways to inform that judgement, feedback from those actors is needed, which is in part what the case study approach here is intended to elicit.

The question of generalizability cannot be avoided; however, a case study approach is not to be justified one way or another by reference to the idea of a sample as a subset of a wider population. In one sense, all of the participants in a case study constitute the population being studied. In another sense, ‘a case study is not a sample of one drawn from a known population ... indeed, the findings of qualitative research are to generalize to theory rather than to populations’

(Bryman, 2008:391-392). The question, then, of how this population might be

comparable to another population needs to be addressed not in terms of the similarities and differences in the attributes of the participants, but rather in the relationship between the participants and the context of their situation. Paradoxically, common patterns of interactions can still give rise to unique situations because of the complexity inherent in every social context, where external circumstances affect local cultures in indeterminate ways. Nevertheless, the uniqueness of every case-study context enables researchers to make visible how the object of research can be distinguished from the environment in which that object is studied. As Geertz (2000) puts it, in his argument for ‘thick description’ as the way of dealing with this methodological issue: —

The locus of study is not the object of study... You can study different things in different places, and some things ... you can best study in confined localities. But that doesn't make the place what it is you are studying (Geertz, 2000:22).

In a case study approach, with respect to the process of choosing the locus and object of study — because this is what substitutes for ‘sampling’ in a study of cases — the same methodological issue needs to be borne in mind.

This does not mean that the actual location of a case is unimportant. If it were, then it would not be a case study but what Bryman calls a cross-sectional design, of which a typical example would be a survey (Bryman, 2008:44,46). In a cross-sectional design, ‘the case itself is not the apparent object of interest: it is little more than a location that forms a backdrop to the findings’ (Bryman, 2008:54). In a case study, the location is never just a backdrop, with the theatrical connotations of that word; but nor is it the object of analysis. What also characterizes a case study is the requirement to gather as much information as is feasible about the context of that

study, not in order to control the factors that are identified in that context, which would be an impossible task, but in order to understand as clearly as possible how the meanings of social relations within that context might be open to valid interpretations that allow those meanings to have significance beyond their context.

Although Geertz was working in the field of anthropology, a corresponding methodological conception of the context can be found historically in the field of education. Vygotsky argued in his work on children's learning development that 'environment is the source of development, not its setting' (Vygotsky, [1934] 1994). This is not to suggest an analogy between children's development and the professional development of educational practitioners. What is suggested is that the locus of a case is not to be regarded as a set of inert scenic parameters against which social actors play out their parts. The particular nature of the environment, in all its physical, social and cultural significations, is what enables the social interactions and activities within that environment to have meaning for the participants engaged in them; it is what further enables a case-study researcher to derive knowledge and theoretical inferences from those meanings.

Here one is reminded of the similarity of educational case study to one of the purposes of anthropology — to render the unfamiliar familiar and the familiar strange (Simons, 1996).

For Simons, this apparent paradox extends to the question of generalization. 'By studying the uniqueness of the particular, we come to understand the universal' (ibid.). Bassey (1999:36) cites Simons in his review of how different writers have considered the issue of generalization for case study methodology. Yet paradox hardly seems to be a satisfactory stopping point for a methodology that, like any

other, should enable any researcher implementing it to make claims for the validity and reliability of the resulting study findings. Moreover, however welcoming this paradox might be for explaining a dilemma, it does not provide any criteria for why the locus of one case should be selected over another.

It is important here to contrast Bassey's (1999:48-51) concept of fuzzy generalization applied to this research problem with Yin's (2014:42) concept of analytic generalization and the logic of replication. Bassey's generalization is predicated on his assertion that the main reason practitioners are less likely to use published research is due to the inaccessibility of research findings and the lack of communication between researchers and practitioners. In other words, his concept is predicated on an assertion that presupposes an answer to the question which this research study seeks to explore. Yin's conception (2009:38) is more appropriate: '*analytic* generalization, in which a previously developed theory is used as a template with which to compare the empirical results of the case study'. Note that is similar to Stake's concept of an instrumental case study. 'I call it *instrumental case study* if a particular case is examined mainly to provide insight into an issue or to redraw a generalization' (Stake, 2000:437). Here the previously developed theoretical idea, as discussed in Chapter Two, concerns the differential valuing of tacit, experiential knowledge and explicit, codified knowledge.

3.3.2 The choice of a multiple-case study

For this research, a study was designed using two separate cases that might also enable a cross-case analysis, depending on the separate case findings. It is proposed that the basis for this multiple-case design is that of theoretical replication. The theoretical formulation providing the anticipated contrast has two elements. The first

element is that of cultural contrast in relation to the valuing of different kinds of knowledge. The second element concerns the potential conceptual contrast between a collaborative school culture and a subject-specialist teaching team as a possible way of understanding how a social grouping interacts in order to develop professional knowledge. The relevance of these contrasting elements to the choice of actual cases will be set out in the sections that follow.

There are two main reasons for choosing a multiple-case study design. Both reasons relate to the potential for theory development by means of what Yin calls ‘analytic generalization’ (2014:42). In each case there is a contrast between the two cases, in the Shanghai region and a northern English one respectively. The first reason relates to cultural context. As Schön (1983) established, following Polanyi (1966), in Anglo-American societies when it comes to the valuing of different kinds of knowledge in those societies, explicit knowledge is regarded as more highly valued than tacit knowledge. But the value placed on tacit knowledge has a cultural dimension. The concepts of explicit and tacit knowledge were discussed in section 2.4.2 of the conceptualisation and literature review chapter, so they will not be considered again in detail here. However, it should be noted that Hildreth, in reviewing the literature on knowledge management, argued that in Western culture there is a ‘dominant view of knowledge as being an object that can be captured and codified. [The] Eastern view places more of an emphasis on tacit knowledge.’ (Hildreth, 2004:17). It provides a cultural contrast in terms of the dominant cultural norm in the dimension of valuing knowledge. So, in considering this multiple-case study design, another speculative proposition to be investigated was that a greater reliance on tacit knowledge might align more closely with official policy approaches

in the Shanghai setting, in terms of what teachers are expected to do in order to raise the quality of their teaching, than would be the case if their counterparts in England place a similar reliance on tacit knowledge. In this way the multiple-case design was seen as enabling the subsidiary research question, about cultural orientations to different kinds of knowledge, to be addressed.

However, the similarity between the two cases is that the participants are educational practitioners. The speculative proposition is that school practitioners value tacit knowledge relatively more than codified knowledge in both cultures. The field of school pedagogic practice in England was regarded as being possibly less aligned with the cultural norm, whereas the situation in China seems to align with the dominant cultural norm. The similarity between the practitioners' approach to different kinds of knowing was proposed as providing a provisional analytic generalization. This will be considered in more detail in the section 3.3.4 below.

The second reason is to do with different social groupings. The grouping in the northern English region can be studied in the first instance as a network, though a community of practice (CoP) perspective might also be fruitful; while the teaching team in Shanghai can be regarded as an emergent community of practice, though less as a network. So, there are both similarities and differences of emphasis that enable a clearer understanding of recontextualization in the use of research to be considered in the contrast between the two case settings.

As a reason for choosing multiple cases, Yin proposes a logic of replication (2009:54). Given a first case, one or more additional cases are selected on the basis of either predicting similar findings or of predicting contrasting findings but for reasons that can be anticipated. Yin calls the first basis 'literal replication' (ibid.) and

likens it to when in the natural sciences a second experiment seeks to replicate a first one, in order to check the findings. The second basis is called ‘theoretical replication’ by Yin (ibid.), and it is designed to use contrasting characteristics to see if any contradictory findings arise that could not have been anticipated from the initial theoretical formulation, necessitating a revision of that formulation in order to resolve the contradiction.

By aiming to derive an analytic generalisation from the case study’s findings, it becomes possible to make an evaluative judgement about the conceptual adequacy of any model that seeks to bring together the various factors identified in the data analysis. In doing this, due account will be taken of the proposition advanced by Jerome Bruner:

... in theorizing about the practice of education in the classroom ... you had better take into account the folk theories that those engaged in teaching and learning already have. For any innovations that you, as a ‘proper’ pedagogical theorist, may wish to introduce will have to compete with, replace, or otherwise modify the folk theories that already guide both teachers and pupils (Bruner, 1996:45).

The intention here, in conducting this multiple-case study and in considering the different cultural contexts in which the cases are set, is not to replace those folk theories, as only the practitioners themselves could do this. Rather, it is to produce a better understanding of exactly what might be implicated in those theories, why they are so persistent as reliable guides for practitioners in the face of external demands, and how educational research can itself utilise, within different knowledge structures, the social learning they embody.

3.3.3 Selection of settings and participants

With this in mind, some brief remarks regarding the ‘locus’ of each proposed case study are presented here whilst noting that they are no more than an outline of the reasons underlying the choice of grouping in each instance. Contextual information relevant to the object of study will be presented in Chapter Four, which will inform the subsequent chapters on the findings emerging from the data analysis and the discussion of those findings. What is set out here and in the following section is merely for the purpose of explaining how the choice of multiple cases fits into the overall research design.

There are two case-study locations that together constitute the real-world contexts for the multiple-case study design. For practical reasons, in order to study the social groupings in detail, it was necessary to choose locations where extensive data collection is feasible without incurring major costs for the researcher. The first case involves a group of English language subject-specialist practitioners in the Shanghai administrative region; the second case concerns a group of Primary School practitioners in a collaborative school community that is itself part of a network of schools in the north of England. Except for their proximities to ports, there are no obvious geographical similarities between the two locations.

So, economically and culturally Shanghai has a high degree of autonomy in determining educational provision. When in 2003 the Chinese Ministry of Education developed its new ‘High School Curriculum Program (experimental version)’, at the same time in Shanghai a new model of teacher development was introduced. Known as the Action Education model, it aimed to facilitate teachers’ practice in dealing with ‘the gap between the vision of teaching and learning in the new curriculum

reform and actual teaching and student learning' (Paine & Fang, 2006:288).

Consequently there arose an expectation, at both a policy and an administrative level, for practitioners to make use of research in teaching and learning and to be engaged in some form of research as part of their professional development. This expectation is present in both Chinese and English case settings. In this respect it is also to be expected that the practitioners in each of the two cases would tend to have a positive view of the need to forge links between educational research and the practice of formal education. In other words, a lack of motivation to become informed about research is unlikely to be a major factor in interpreting the data from either case setting where that data suggest there are still obstacles to engagement.

The researcher was an English-language teacher before coming to the U.K. to complete a Master's degree in education. Therefore, the researcher had access to a professional network of English-language teachers in Shanghai. Within this network, the researcher identified teachers at an appropriate Shanghai Primary School for the purpose of this research study. The specific characteristics of the school will be considered in Chapter Four. It is sufficient to note here that its appropriateness is mainly due to all of the teachers in the school being expected to engage with and in research as part of their professional practice.

The participants selected in the first instance in the Shanghai setting were all six of the English subject-specialist teachers within the school.

Clearly any selection of respondents should be based primarily on theoretical considerations, in particular keeping in mind that the purpose ... is to obtain a variety of interpretations rather than to

seek consistencies in responses in order to develop statistical generalizations. (Davies, 2008:109)

The English-language subject team also encompassed a wide range of professional experience, and included the school curriculum leader.

Further, during the period of field visits to the Shanghai school, there was an opportunity to interview the City Inspector and the District Inspector, both of whom visited the school during this period. So they were included as research participants, in anticipation that not only would they provide a different perspective on the question of using research, but also that their greater professional experience and knowledge of pedagogic practice across the regional district would provide additional interpretations. This resulted in a total of eight interview participants. The question arises as to whether this number is sufficient to meet the aims of this research study.

[A] case study can be viewed as an in-depth study of interactions of a single instance in an enclosed system. The issue of numbers for a case study is therefore meaningless. (Opie, 2004:74)

Because, as was stated previously, in a case study the notion of sampling from a population is not applicable, Opie's point logically follows. Nevertheless, the question of numbers is implied in Davies' point about theoretical considerations, quoted above. The number of participants interviewed is also subject to practical considerations, both with respect to the time available for data collection and to the feasibility of transcribing and translating that interview data. Within those practical considerations, the most important factor in determining the number of teacher-participants was that they comprised the English-language teaching team. If there had been seven or five team members, instead of six, then that would have been the

number chosen. This is because the object of study is the practitioner group, not individual practitioners, as explained at the beginning of section 3.3 above. The City and District Inspectors also have language-teaching as their special responsibility, so including other subject-specialist practitioner groups would have altered the network relations between the inspectors and the teachers interviewed. This was particularly important as many of the examples used by both inspectors in their responses were specifically focused on the teaching team's practice.

The selection of the English setting and participants was similar to the Shanghai setting with respect to the school's status and the range of professional experience, and contrasting with respect to the school community and practitioner grouping. This setting was chosen as the comparison case in the multiple-case design. Discussing this kind of design, Thomas comments: —

Selection [of a comparison case] would have to be on the basis of prior knowledge by the researcher of these levels of difference and the interpretations would also be made in the context of this knowledge. The key to this research would be to drill deeper, to find out more and undertake more searching analysis of the cultures of the two environments. (Thomas, 2011:141)

Cultural contrasts will be discussed in the next section. With respect to the researcher's prior knowledge, that of the Shanghai setting was derived from access to a professional network. The prior knowledge of the English setting was also derived from access to a professional network, though in this instance the access was via a member of a university faculty of education who had experience of working collaboratively with that network.

Like the Shanghai school, the English setting is a Primary school and one where all teaching practitioners are expected to use research and engage in research activities.

A key difference between the two settings is that, due to differences between the Primary education systems, the English Primary teachers are generally expected to teach across all curriculum subjects. They may have professional subject-specialisms, though this does not determine how practitioner groupings are organized. Accordingly, the main criterion for selecting practitioners for interview was to ensure a range of professional experience across respondents. The researcher selected the practitioners on this basis and after familiarity gained from a period of preliminary observation of six teachers' school meetings during the period March to May 2015, and one schools' network research meeting in March 2015. This resulted in a matching number of eight interviewees in total, comprising one deputy headteacher, one school leader, one experienced teacher who was in a full-time post and one who was in a part-time post, two recently qualified teachers and one newly qualified teacher. The additional participant was a headteacher from another school in the same network, who was also a research project leader.

3.3.4 Cultural contrasts

In what ways might the companion case's findings supplement those of the first case? Could the data from the second case fill a gap left by the first case or respond better to some obvious shortcoming or criticism of the first case? Would the two cases together comprise a stronger case study? (Yin, 2009:62).

The first case is based in Shanghai. The companion case is in the northern region of England. The values placed on different kinds of knowledge are influenced by culture. So, by being located in a different culture the second case helps to explore what those cultural influences might be in terms of affecting teachers' values and

self-identity with respect to different kinds of knowledge. This relates to the fourth research question about cultural orientations.

There might be a contrast between Asian and Anglo-American cultural orientations, as proposed by Hairon and Dimmock (2012). They argue that strong leadership is necessary for learning communities to be successful in an Asian context, which in their research instance was Singapore. Singapore is not Shanghai, any more than Milan is Manchester. Nevertheless, it is worth considering whether in an Asian context today the sense of authority is still as strong as Hairon and Dimmock argue. This will be an important consideration for data analysis in each of the cases studied here.

Although manipulation of salience has not been a typical part of the cross-national literature on culture, the idea that contexts activate cultural knowledge is well represented in the literature ... the idea [is] that Chinese educational contexts can make salient procedural knowledge about how to engage with others and how to go about learning (Oyserman and Lee, 2008:313).

Geertz (2000) and Newby (2010) argue that one's study should not be confined in the place and the object of a study, but the locus of a study should go beyond the immediate settings. The locus of this study is 'teacher groups engaged in language development' in both England and Shanghai. The main reason for considering two teacher groups in the Primary sector is because Primary teachers are concerned with language development even if they have other specialist areas. The choice of language development is also important for this study, because cultural orientations to knowledge are necessarily embodied in pedagogies for linguistic capability, and one of the key aims of this study is to consider whether cultural orientations to social practice might influence variations in social practices for using educational research

(see the fourth, subsidiary research question). This is why a multiple-case design is chosen with the case settings being in different cultures. If these potential cultural contrasts are not explored, a single-case design would be sufficient; but the potential for analytic generalization would be reduced.

Hildreth (2004:17) points out, ‘The interest in tacit knowledge in KM [knowledge management] has come about because of an Eastern influence in the field of KM’. As the conceptualisation and literature review in Chapter Two has indicated, that interest stemmed largely from the research undertaken by Nonaka and Takeuchi (1995) into the knowledge creation processes in Japanese companies. They argued that Asian contexts are more likely to place a relatively greater value on tacit knowledge than is found in Anglo-American contexts.

The distinction between explicit knowledge and tacit knowledge is the key to understanding the differences between the Western approach to knowledge and the Japanese approach to knowledge... Knowledge also embraces ideals, values and emotion as well as images and symbols. These soft and qualitative elements are crucial to an understanding of the Japanese view of knowledge... While Westerners tend to emphasize explicit knowledge, the Japanese tend to stress tacit knowledge. (Nonaka and Takeuchi, 1995:8-9; 61)

Kase et al. (2011) conducted literature reviews and eight case studies of the possible cultural differences between Asian and Western managements, extending Nonaka and Takeuchi’s studies. Their findings generally concur with those of Nonaka and Takeuchi (1995). Their case studies extend the Asian settings to nations other than Japan. They found that the tendency in Western epistemology to maintain a distinction between rules and their instantiation was relatively lacking in the epistemological assumptions of Chinese managers. It is these epistemological

differences that they argue are more explanatory than other factors for understanding what is commonly thought of as cultural differences.

We argue that while cultural differences do exist, these discernible differences can be understood better by evaluating them as philosophically and cognitively based epistemologies. (Kase et al., 2011:91).

Interestingly, claims about the cultural valuing of tacit knowledge were introduced by Polanyi at the historical beginning of his development of this concept.

The modern mind refuses to accept the necessity for tacit assumptions and wants to keep the grounds of its beliefs clearly in focus, as one does in an explicit deduction. *Our whole culture* is pervaded by the resolve to avoid unspecifiable commitments and to get down ruthlessly to the hard facts of this world and to keep our eyes firmly fixed on them. (Polanyi, 1965:8; my italics)

From the context, which is Polanyi's critique of positivist conceptions of scientific knowledge and rationality, it can be inferred that 'our whole culture' is actually what is conventionally known as Western culture, expressed from a typically universalist perspective.

A multiple-case study enables a richer picture to be developed from a non-universalist position regarding a cultural contrast between these two contexts, Chinese and English, and to find out whether this dimension remains or is subtly changing; moreover, it enables consideration of a non-universalist conception of a network and a community of practice, as analysed by Wenger (2011). Thus, each case in this study contributes to the validation of the multiple-case study as a whole. The design is not about cultural comparison, but about cultural contrast, in order to seek corroboration in valuing different ways of knowing. One cannot compare one

educational system directly with another. Clarkson states that there are three challenges in comparative education: —

[A]ccuracy and reliability, comparability, the generality-specificity trap ... You cannot compare apples with pears... ... There is a tendency to assume that meanings attached to particular terms in your home setting are the same as elsewhere... ... Examining schools in a cultural context will avoid rash comparisons that fail to take account of the different purposes schools are expected to serve in different countries. (Clarkson, 2009:14)

Nevertheless, as part of that cultural contrast, the claims made by Nonaka and Takeuchi (1995) as a result of their research into knowledge-creating processes might be used as speculative propositions that could calibrate the various meanings attributed to different forms of knowledge in the two case settings.

3.4 Relating to research participants and ethical issues

The relationship of the researcher to the research participants was one of ‘outsider stranger’ in both settings, though the distance implied by that conventional role label was not exactly the same in each case. That differential relation is considered in detail in Chapter Four, section 4.2.3, and in Chapter Six, 6.2.4 in the discussion of findings. Here what will be considered is what that relationship had in common in both settings, namely, its ethical dimension. This will be briefly discussed under the three categories suggested by Ryen (2004): codes of practice and consent, confidentiality and anonymity, and trust.

3.4.1 Codes of practice and informed consent

It was essential that the ethical code of practice governing research conducted under the aegis of the University are adhered to, in conducting this research study. That code is embedded in the faculty document that at the time of commencing this study was entitled *Ethical procedures for research and teaching in the Faculty of Education*. This document sets out the relevant ethical principles as well as the procedures to be followed. It is aligned with the *Ethical Guidelines for Educational Research* published by the British Educational Research Association (BERA, 2011). Those guidelines detail the responsibilities of educational researchers to their research participants. While it would not be appropriate here to discuss all of these responsibilities, even though their embodiment in the faculty document meant that all of them were met, the one concerning voluntary informed consent that is perhaps the most relevant for this study.

Researchers must take the steps necessary to ensure that all participants in the research understand the process in which they are to be engaged, including why their participation is necessary, how it will be used and how and to whom it will be reported.
(BERA, 2011:5)

In addition to taking those steps, it was important that participants understood that in effect they were being invited to take part in research about research. Thus, the reflexive understanding discussed previously in this chapter was in effect being sought from the participants as well as being a necessary stance for the researcher.

This research design presented here was submitted to the University's Faculty of Education Ethics Committee and approved by that committee on 24 July 2014 (see Appendix). Following that approval, the school that was the Shanghai case setting

was contacted, and the informed consent was sought and received in writing first from the school's headteacher and subsequently from the research participants in the school. When the opportunity arose to include the City and District Inspectors in the research, their informed consent was sought and received from each individually. In each of these instances, the letter and document templates included in the Faculty Ethical Procedures document were used. This procedure was also followed for the English school that is the other case setting, in January 2015. In both case settings the procedures concerning the other ethical principles and responsibilities towards participants were also followed. At no point was consent withheld or withdrawn.

3.4.2 Confidentiality and anonymity

It was important to assure participants that their anonymity with respect to their responses and actions in this research study would be maintained, and that confidentiality would be preserved, with respect to other members of the same organization as well as with those outside of it. To this end, the guidelines and procedures recommended by the Faculty of Education were followed, including formal rubric statements made to participants before the commencement of interviews. The other main step taken was to use aliases for all participants from the first stage of data collection through to the reporting contained in this thesis. Similar steps have been taken to ensure that the two case settings cannot be readily identified. For example, Yang Pu district is not the school's name; the Shanghai school's pseudonym is Chuang Xin Primary School. The school in the northern region of England is only referred to as the English school. Because all participants are educational professionals, they all stated that they are familiar with these issues of confidentiality and anonymity, as they must frequently adopt similar safeguards in

their own practice. It is recognized, however, that total confidentiality and anonymity would be difficult to guarantee in the face of an in-depth investigation by anyone skilled in uncovering sources. Accordingly, such a guarantee was not given to participants; instead, it was explained what steps had been taken and participants were invited to say whether they thought that reasonable attempts had been made with respect to this issue. Again, no participant withdrew on the grounds that they felt those measures to be insufficient or unreasonable.

3.4.3 Trust

Research methods textbooks often stress the importance of developing rapport with research participants, particularly when methods such as interviewing are used. For example, Bryman (2008:201) explains that rapport ‘means that very quickly a relationship must be established that encourages the respondent to want ... to participate in and persist with the interview’. Yet this concept of rapport tends not to be associated with the issue of trust. If mutual trust is not established, rapport is unlikely to follow. If the trust is not mutual, then the researcher may begin to doubt the sincerity of the participant’s interview responses, and the participant may doubt that the researcher will report statements accurately or that those statements will not be misused or revealed to third parties in a way that might harm the participant’s interests. In particular, if there is a lack of mutual trust then the researcher may begin to suspect that participants are merely saying what they think the researcher wants to hear, and participants may begin to feel that they cannot reveal any misgivings they might have about policies and procedures they are expected to follow in their daily practice. Consequently, the establishment of mutual trust as a central aspect of establishing rapport with participants was given priority by this researcher.

Bryman (2008:201) also points out that too much rapport can also bring problems in that excessively friendly relations between researcher and participants can have a negative influence on interview responses, for example when a participant seeks to draw the researcher into colluding with a particular agenda that concerns the politics and dynamics internal to the participant's organization. If the researcher refuses that collusion, then the participant may feel let down or otherwise badly used. In other words, too much rapport can also be an ethical issue, and the researcher had to be particularly careful in the Shanghai setting that, in establishing mutual trust, balance was maintained regarding rapport and informalities over the course of frequent visits to the setting.

Such ethical issues as have been briefly identified in this section also pose risks to the credibility of the research, and these risks now must be considered.

3.5 Risks to research credibility

It is the convention to discuss these risks in terms of particular concepts of validity and reliability though, as these concepts were developed in relation to quantitative research, Guba and Lincoln (1994) argued that for qualitative research they should be modified as criteria for the concept of trustworthiness. Each of these concepts will be discussed briefly here. Before doing so, it should be noted that Maxwell (2012) has argued that because the concept of trustworthiness is still based on the procedural criteria that were established as formally defining scientific method in quantitative, experimental research in the natural sciences, it does not escape the positivist assumptions about the possibility of attaining a complete separation of subject and object. (See also Seale (1999) for a similar critique with particular reference to the

concept of truth-value.) Consequently, even in qualitative research where total objectivity independent of subjective influence is deemed unattainable, ‘judgements of validity have been largely based on the *methods* used in the research’ (Maxwell, 2012:128; emphasis in the original).

Maxwell proposes a four-way categorization of descriptive, interpretive, theoretical and evaluative validity in order as a guide to this alternative approach in assessing risks to credibility (Maxwell, 2012:134-145). Although the first two of these categories are useful in directing attention to substantive issues of data collection and analysis that are less matters of design and more matters of outcome, the second two are only minimally relevant to an exploratory case study, and with respect to theoretical validity Maxwell himself states (Maxwell, 2012:140) that it ‘closely matches what is generally known as construct validity and ... what is commonly called internal or causal validity’, so this remains part of the procedural criteria that he criticizes. For this reason, and because the scrutiny of methods for judgements of validity is still the most widely used in educational research, trustworthiness will be considered separately from the brief remarks on those first two categories.

3.5.1 Validity

Maxwell’s first risk category, descriptive validity, concerns the ‘factual accuracy’ of researchers’ accounts: ‘that is, that they are not making up or distorting the things they saw and heard’ (Maxwell, 2012:134). The data collected in this study are obtained from interviews, observations and documents. As the main burden of analysis falls on the data collected by the first of these methods, it is here that the main risk to research credibility arises. Audio recordings were made of the interviews; these preserve the speech of participants, but not their non-verbal

gestures or expressions that contributed to the meaning of what was spoken. From these audio recordings, written transcripts were produced; these preserve the words used by participants and some of the paralinguistic features of their speech, but not all of them, and none of the intonation, pitch, rhythm or other aspects of their language usage that contribute to the participants' spoken expressions. It is the written transcripts that were analysed. Further, in the case of the Shanghai participants, the transcripts were initially produced in the participants' language, Mandarin Chinese. These transcripts were then translated into Standard English, and it was these translations transcripts that were analysed, though wherever a coding ambiguity arose the original Chinese language recordings were consulted to help in resolving it. As a consequence, there is the possibility of a loss of accuracy at each of the recording, transcription and translation stages. Consideration of how these threats to descriptive validity were addressed will be given briefly in section 3.6 of this chapter and more fully in section 5.2 of Chapter Five.

The second risk category, interpretive validity, is concerned with what 'objects, events, and behaviours *mean* to the people engaged in and with them' (Maxwell, 2012:137; emphasis in the original). This is a key concern for this research study. Accordingly, at every point in the analysis and interpretation of data, threats to interpretive validity were under consideration, because the question of what participants meant by their utterances is essential to the main research question. This necessarily involves making inferences: 'interpretive understanding is inherently a matter of inferences from the words and actions of participants in the situations studied' (Maxwell, 2012:138). Nevertheless, the threat to interpretive validity is not of constant magnitude; it is greater wherever the inference moves from

the referential meaning of what participants say to a more conceptual meaning, which may or may not be corroborated by subsequent participant comments clarifying their meaning. When the participants do not provide that clarification, or indicate that they cannot explain fully in words what they do, then the risk to this validity is greatest. As a key part of the conceptual framework employed in both the design of this study and in the data analysis includes the concepts of tacit knowledge and of experience, the meanings of these concepts cannot by definition be easily and concisely articulated. Consequently, alternative interpretive inferences regarding these concepts will be considered with particular respect to the relational model derived from the analytic findings. This consideration of alternative inferences is the main way in which this risk to the research study's credibility has been addressed, in contrast to restricting any inferences strictly to the research participants own terms and concepts, which might be appropriate to a grounded-theory approach but which is less appropriate to the inductive thematic approach within an exploratory conceptual framework that is adopted here.

3.5.2 Reliability

Maxwell (2012:137) refers to reliability only in passing, and then only with respect to inter-researcher reliability where more than one researcher is involved in data collection and analysis. As this study has been conducted by a sole researcher, this issue does not arise. This does not mean, however, that there are no other reliability issues to be considered. The main issue will be addressed below with respect to the third criterion of trustworthiness, dependability. A secondary, related issue concerns

the reliability of coding as part of the data analysis process, so it will be considered in section 3.7 of this chapter.

3.5.3 Trustworthiness

Bryman (2008), following Lincoln and Guba (1994) gives four criteria for trustworthiness:

- 1) *credibility*, which parallels internal validity
- 2) *transferability*, which parallels external validity
- 3) *dependability*, which parallels reliability
- 4) *confirmability*, which parallels objectivity
(Bryman, 2008:377; italics in original)

The slightly restricted sense of credibility in the first criterion concerns the alignment of the thematic findings from the data analysis with the relational model developed from those findings, with the data collected. This will be discussed in detail in Chapter Six as well as in the overall conclusion. The second criterion of transferability could be said to be met in so far as the research design involved two settings, though any transferability to other settings is a matter of analytic not statistical generalization (Yin, 2014:42). Neither the Chinese nor the English school setting could be said to be typical of other schools in their country. The specific aspects of each setting are the subject of Chapter Four. These are also taken into account in the discussion of findings and of their limitations, in Chapter Six.

The third criterion, dependability, corresponding to the notion of reliability in quantitative research, involves judging the consistency of the procedures for conducting the study, and the extent to which the presentation of findings (in Chapter Five) provides sufficient evidence to support the analytical judgements and interpretations arising from the coding process. A necessary step here is the

establishment of a case-study database, which for this study was done using the *NVivo* software application. More details of this will be provided in section 3.7 of this chapter. ‘Complete reliability is not attainable’ (Arksey & Knight, 1999:53), though the use of semi-structured interviews as the principal method of data collection did aim to maintain consistency of questioning across all research participants.

Bryman (2008:379) considers the fourth criterion, confirmability, to be a matter of the researcher showing she has behaved ‘in good faith’; Arksey and Knight (1999:54-55) relate this to the use of triangulation in the research design, and this will be discussed in the next section (3.6). They also argue that this means the researcher should aim to maintain a stance of neutrality with respect to participants’ views and behaviour (Arksey & Knight, 1999:55). As neither neutrality nor objectivity can be fully achieved in qualitative research, they gloss ‘neutrality’ as ‘a requirement that the researcher considers their own role in the research’ (ibid.). This is what the concept of reflexive understanding is intended to address, and as such it has been discussed above in section 3.2.

3.6 Methods of data collection

3.6.1 Principal method used: interviewing and data triangulation

Interviewing is a social process that in social research, argues Davies (2008), tends to be conceived in one of two ways. Either the interviewee’s responses are regarded as a representation of social and cultural realities (Davies, 2008:107), including the

interviewee's perceptions and attitudes towards those realities; or the interviewee's responses are regarded as merely one side of a two-way interaction, the outcome of which is a co-construction of meaning and 'knowledge of their social world' (Davies, 2008:109), where the validity of that constructed knowledge can only be derived from the interactional features of that interview situation. Davies rejects this dichotomy, and argues that a realist approach to the research process accepts that there is a determinate relation between these alternatives. The interviewer and interviewee may indeed be engaged in a co-construction of meanings within the interview situation, but this does not imply that the resulting meanings provide no valid representations of what the interviewee perceives to be happening outside of the interview situation, in the social and cultural realities that the interview topic references (Davies, 2008:109). It is the task of the researcher to take the dynamics and conditions of the interview situation into account in evaluating the validity and reliability of what interviewees offer as representations of their views and professional practice, whilst at the same time avoiding the reduction of the interviewees' responses to nothing more than an effect of that situation. Yin makes a similar point by emphasising the verbal nature of interview evidence.

Interviews are an essential source of case study evidence ... when your interviews focus on actions because they are a key ingredient in your case study, interviews should always be considered *verbal reports* only. (Yin, 2014:113)

They do not give unmediated, accurate access to events, but they are still reports of those events. The language of interviewees' responses is transitive; it refers to actions and it situates those actions in structures of meaning.

Wengraf (2001:158-159) similarly argues for a more critical view of the assumptions about ‘the research subject’. He cites Hollway and Jefferson (2000): —

Taking a research subject’s account as a faithful reflection of “reality” ... assumes a person is one who:

- shares meanings with the researcher
 - is knowledgeable about ... her actions, feelings and relations
 - has accurate memory
 - can convey that knowledge to a stranger listener
 - is motivated to tell the truth to a stranger listener.
- (Wengraf, 2001:158)

Whether or not the interviewee’s responses are regarded as reflecting reality, these assumptions can persist because they tend to be the assumptions that researchers hold about themselves. Yet to reject them would seem to question the feasibility of using interviewing as a method of data collection at all. One solution to this, in addition to regarding the interview data not as a reflection of reality but as a mediating verbal report on it, is to seek ‘triangulation’ of the interview data with that collected by other methods (see, for example, Richards, 2009:20; Thomas, 2011:68; Bryman, 2008:379). In practice, this kind of ‘methodological triangulation’ (Arksey & Knight, 1999:23) is time-consuming and resource-intensive, as well as requiring access to organizational practices and documentation that might be difficult to achieve except in a limited way. This was a difficulty encountered in this research study, with respect to using other data collection methods. Although documentation and observation were also used, they could not be regarded as equally important sources of data precisely for these practical reasons. So, in addition to some limited methodological triangulation, data triangulation was incorporated into the research design: —

Data triangulation means the use of a research design involving diverse data sources to explore the same phenomenon. The data sources can be varied, or triangulated, in terms of person, time and space. So, for example, data might be collected from different comparison groups, or at different points in time, or from a range of settings. (Arksey & Knight, 1999:23)

It has been explained in previous sections of this chapter how such data triangulation has been sought in the use of two settings in two different cultures and educational systems, collecting data from a range of practitioners. The purpose of this is to aid data completeness rather than theory confirmation.

[V]ariation within the data will be less of an issue in studies using triangulation for the purpose of completeness. In these cases, researchers are likely to adopt the premise that social reality is multi-faceted, and their work is an attempt to reveal this complexity. From this perspective, differences in findings can be looked on as additional, useful data ... divergences have the potential to enrich the analysis and explanation.

(Arksey & Knight, 1999:28)

In using data triangulation within the interviewing as the principal method of data collection, and conceiving the interview process as one of interactively eliciting verbal reports of multi-faceted reality rather than as direct representations of that reality, the following maxim for establishing the researcher-interviewee structure has been adopted: '*Your* descriptions and explanations need to be distinguished between *their* descriptions and explanations' (Wengraf, 2001:320; italics in the original), while maintaining an evidential relation between the two. This has been employed both to guide the development of the specific type of interview used, including the transformation of the research questions into an interview schedule; and to guide the analysis of the resulting interview data. In this way, any variations and inconsistencies or just differences in the interview data can be used to maintain a

critical stance towards those assumptions about the research subject, and an explicit recognition of them, rather than trying in vain to abandon them altogether.

The rationale for semi-structured interviewing

Semi-structured interviews were selected as the most suitable type of interviewing for this research study. Yin (2014:110-111) points out that case study interviews must pursue ‘a consistent line of enquiry’, given by the research questions, but they should be sufficiently ‘fluid’ to allow interviewees to provide ‘a fresh commentary’ on the research topic if they wish to initiate one. Because in this case study interviews needed to be more focused on professional practice and meanings than would be the case if the research were exploring biographical trajectories or narrative inquiry referring to long periods of time, yet needed to be sufficiently open-ended in their questioning to allow patterns of response to emerge from participants’ perceptions and values, semi-structured interviews confined to a relatively short time schedule were the most appropriate to use for collecting data in both settings.

Arksey and Knight (1999) set out the main characteristics of semi-structured interviews. They are closer to unstructured interviews in that both aim ‘to hear about the problem area in the words of the people in the situation, to try to understand things in their terms’ (Arksey & Knight, 1999:18). On the other hand, like structured interviews, ‘the interviewer does have a specific agenda to follow and will have selected beforehand the relevant topic areas and themes to pursue’ (Arksey & Knight, 1999:7). This is done through a mixture of open and relatively closed questions in the interview schedule, which provides the flexible structure within which a small number of additional questions may be asked for clarification purposes, or to probe briefly the implications of a particular interviewee response.

See Appendix One of this thesis for the full interview schedule used in both case settings.

The interview schedule

The interview schedule was developed on the basis of the research questions, which were then transformed into what Wengraf (2001:61) calls ‘theory questions’, which make explicit the ideas or perspectives that need to be elicited if the research questions are to be addressed. These theory questions were then operationalized as interview questions, because those questions must be framed in terms that are likely to make sense to participants. For example, the first question in the schedule, about the length of service as a teacher, is a closed question intended to elicit a possible indicator of how experienced that participant might be. This is accompanied by a question asking participants if they regard themselves as experienced. This is followed by a more open question inviting the participant to say what they think distinguishes an experienced teacher from a novice teacher. All three interview questions are intended to elicit responses that address the ‘theory question’ that experience is both a problematic concept and one that participants are likely to regard as important for problem-solving in the classroom.

Alongside this kind of question, the interview schedule includes those that encourage participants to give specific examples about their practice. For example: tell me about a time how you successfully solved a problem in your teacher? Can you talk me through how you went about solving it? In the future, if you face a problem or challenge in your teaching, how would you go about dealing with it? The intention here is to elicit responses that might indicate how much participants regard the features of a teaching-learning situation as important, because asking them about this

directly would be likely to elicit a simple response of ‘very important’. That kind of abstract response would not provide any meaningful information for understanding how participants view the process of using research or other kinds of explicit codified knowledge. By encouraging teachers to give specific examples it also invites responses where participants can refer to their practice in terms about which they feel both knowledgeable and comfortable, rather than having to talk about it in more abstract or theoretical ways where they might feel they are being put at a disadvantage. In this manner, the interview schedule sets out how the questions are attempting to provide information about how participants regard the interaction between their practice and research.

The draft interview schedule was piloted with fifteen teachers known to the researcher in Shanghai, though none who were connected with the school that was the case setting. Following this a number of amendments were made, of which the sequence was the most significant change. Potential ambiguities were also minimized with amendments to wording, and some questions were reduced in length to make them clearer.

Observation: How many meetings how many classes observed?

I observed ten meetings in total (10 September 2014; 24 September 2014; 15 October 2014; 22 October 2014; 29 October 2014; 5 November 2014; 14 November 2014; 20 November 2014; 3 December 2014; 7 January 2015).

I went with three Shanghai teachers to their training session in the College of Shanghai district on 16th December 2014.

I observed five classes in total in Shanghai from Grade one to Grade five. The English school did not give me permission to observe any classes.

As indicated in the introduction to this thesis, the observation data was collected solely for the purpose of obtaining a better understanding of the main case setting, with the aim of enhancing the validity of interpretations of the interview data.

3.6.2 Other methods used

The principal method originally proposed was that of participant observation (Punch, 2009:157). For practical reasons this became the secondary method in the Shanghai setting, and was not used at all in the English setting. The very nature of participant observation has different emphases on either participant activities or observation.

Various typologies have been drawn up in order to specify the characteristics of each kind of role that may be adopted within the use of participant observation as a method. The four roles are: complete participant, participant-as-observer, observer-as-participant, complete observer (Gold, 1958 cited in Bryman, 2008). For a discussion of the issues arising from the management of role variation in participant-observation, as part of a case study employing ethnographic methods of data collection, see Hayes (2000).

Yin (2009) argues that what distinguishes a case study approach is the use of multiple sources of evidence. Although semi-structured interviewing was the principal method, when considered as a whole there are five other sources of evidence. Those other sources were drawn upon in order to ascertain the contextual factors potentially affecting the interview responses. They were: (a) policy or planning documents used in the school; (b) teaching materials and other learning resources; (c) information that is related to how the school has developed to the

position it is in now, and/or contextual information about the school setting; (d) participant-observation of research/teaching planning meetings and observations of teaching in classes (Shanghai only); (e) visual documentation of the school, mainly as photographs.

As everything in a setting can be regarded as a potential source of evidence and data, necessarily there has to be selection in order to avoid gathering data in a haphazard fashion. Accordingly, there has to be a strategy for using criteria of selection and for making connections between data sources as well as the data themselves. ‘Although the setting provides boundaries within which data can be connected, the researcher has to *do* the connecting’ (Holliday, 2002:75; italics in the original). In order that this strategy of selecting, connecting and converging is not excessively affected by prior expectations and the existing interests of the researcher, Yin advocates establishing a case study database.

Too often, the case study data are synonymous with the narrative presented in the case study report... a case study database markedly increases the *reliability* of the entire case study.
(Yin, 2009:119)

This case study database was established and maintained with the aid of the software application *NVivo*, which was also used to aid the data analysis process.

3.7 Data analysis techniques used

The main technique used was inductive thematic coding (Riessman, 2008:12). The coding technique is the basis for inductive thematic analysis. As Braun and Clarke (2006) point out, thematic analysis is widely used method in qualitative data analysis yet it is rarely named as such, being seen instead as a generic technique that ‘can be

applied *across* a range of theoretical and epistemological approaches’, though it has been regarded as ‘a realist/experiential method’ (Braun & Clarke, 2006:78). They cite Dey’s (1993) text as a comprehensive explanation of the method, yet Dey’s title is the merely generic, *Qualitative data analysis: a user-friendly guide for social scientists*. Bazeley (2013:191) agrees with Braun and Clarke that for thematic analysis to be regarded as ‘a distinctive method in its own right’, then it should be used not just as a generic tool for grouping descriptions of data into themes, but should be used to ‘provide a rich and detailed, yet complex, account of data’ (Braun & Clarke, 2006:78). Here, Riessman’s adjective ‘inductive’ is also included, to emphasise that the transformation of data via coding depends on working upwards from the terms used by participants to progressively more general, hence abstract, concepts from which the themes are derived. This contrasts with an analysis where the thematic categories would be largely pre-determined and the coding is more of a classification process according to those categories. Inductive thematic analysis is closer to the ‘in vivo’ coding approach of grounded theory than it is to the classification process of content analysis. Yet it is also important to avoid Dowling’s criticism of qualitative research as ‘not infrequently failing to advance beyond empirical categories... Its interpretations should suggest new ways of making sense of the world and, in doing so, provide inspiration for the interrogation of existing practice and possibilities for its future’ (Dowling, 2010:3).

Dey (1993) identifies seven phases of the analysis with the aim of moving beyond empirical categories, though the whole process is iterative:

1. reading and annotating
2. creating categories
3. assigning categories

4. splitting and splicing categories
5. linking data
6. making connections
7. finding corroborative evidence

Phases (2)-(4) concern coding to develop a node structure from initial 'in vivo' to open and axial coding (Corbin & Strauss, 2008:198). Phases (5) and (6) refer to the development of concept nodes and the identification of thematic patterns, for which the last phase (7) is a necessary check to ensure that the themes are warranted by sufficient data.

The sixth phase has an integrative aim that should enable the development of a relational model from which a theoretical formulation might be derived, thereby fulfilling Yin's view of a case study as leading to an analytic generalization. Central to that integrative process is the identification of a core category. 'The term "core category" originally stems from the grounded theory approach' (Boeije, 2010:115).

Hence, Corbin and Strauss provide the criteria for the core category:

- it must be abstract
- it must appear frequently in the data ... [with] indicators pointing to that concept
- it must be logical and consistent with the data
- it can be used to do research in other substantive areas
- it should aid explanation as other categories are shown to be related to it.

(adapted from Corbin & Strauss, 2008:105)

It will be shown in Chapter Six, the discussion of findings, how the core category for this study functions at the heart of the relational model presented there.

In order to facilitate the inductive thematic coding, the qualitative data analysis software application, *NVivo*, was used. As Dey points out, in using computer-assisted analysis, the risk is that ‘we let the tool define the task, rather than allowing the task to dictate our use of the tool’ (Dey, 1993:268). It should be clear from the extensive explanation in this chapter of the research design, and the methodological rationale for it, that the use of *NVivo* as a digital tool for the analytic part of ‘the task’ is driven by that rationale and not by that tool’s most accessible features. In the following three chapters of this thesis, the substantive characteristics of the case-study settings, the thematic findings from the analysis, and the interpretive discussion of those findings, will all exemplify the priority of the study’s conceptual framework over the instruments and techniques for warranting it.

3.8 Conclusion

This chapter has detailed the research design for this study and the rationale for it. Preliminary to that, the ontological and epistemological assumptions informing the design were outlined. A broadly realist approach is adopted, in that the data collected is assumed to have a linguistic or symbolic reality from which a sense of participants’ objective relations and perceptions may be derived, but not so much as a representation of them as a construction of them constituted part by and in the research situation. It goes beyond an empiricist approach in being prepared to consider what ‘goes without saying’ (Bourdieu, 1990:91) yet which affects what is said. The main epistemological approach is one that regards knowledge as differentiated and more of a process — a matter of knowing — rather than of a unified cognitive entity, as might be the case with constructivist epistemology,

though retaining from the latter the idea that both social reality of practice and the knowing of it are not merely given.

The assumption that there are different kinds of knowledge and knowing is crucial to the conceptualisation underpinning the research design, which consequently aims to elicit participant data indicating how that differentiation expresses a relation to research knowledge. Because that data is a product of this research process, this researcher's relation to such knowledge was considered as a form of reflexive understanding. This doubled positioning with respect to research knowledge — that which inhabits the discourse of educational research and that which is produced by this study — and with respect to the varying relationship with participants, entails a research design that can incorporate it appropriately in addressing this study's research questions, with due regard to practical considerations.

That design is a multiple-case study. The rationale for this being the most feasible methodology, in relation to the first, second and fourth research questions (Chapter Two having addressed the third research question) and the exploratory research aim, rests on the need to study how teachers give meanings and values to research in their context of practice, where the phenomenon of research is problematic and the context is implicated in the object of study and is not just the location of it. The intended outcome, of an analytic generalization rather than a statistical one, together with the development of a relational model, is facilitated by a case study methodology that enables relevant data to be collected in those circumstances.

Questions of meaning and value cannot ignore cultural orientations, hence the fourth research question. To address this, a multiple-case rather than a single case study was chosen. The primary case is the Shanghai school setting; the secondary case is the

northern English one. Yin's logic of replication was invoked to justify this distinction. Following this, reasons for the choice of settings, together with their similarities and differences were presented. That choice provides the possibility of cultural contrasts that are to be distinguished from a cross-cultural case comparison.

Those cultural contrasts return the research design to the matter of this researcher's differential relation to the participants in each case setting. The ethical issues arising from that positioning, and how those issues were resolved procedurally and substantively prior to data collection and during it, were considered according to BERA's ethical guidelines and Bryman's (2008) criteria for trustworthiness, because these issues can pose risks to research credibility, which encompass validity and reliability but are not reducible to them.

Having considered extensively the case study methodology, this chapter then set out the principal method of data collection within it, namely, semi-structured interviewing. The rationale for this form of interviewing in relation to research aims and questions was presented. The use of observation and documentary methods in the Shanghai case to provide data triangulation with the interviewing was also specified. Finally, the choice of inductive thematic coding as the main technique used in the data analysis, with the aid of the software application *NVivo* to manage the large amount of data involved was discussed, in terms of the analytic phases that were followed.

Detailed consideration of methodological issues and implications is often neglected when reporting on the research design adopted in a study, with proportionately more attention being paid to the data collection methods chosen within that methodology. Although those methods should be chosen with due regard to their fitness for purpose

and implemented with meticulous concern for the practical issues that accompany the data collection process, it has been this chapter's contention that research design is not a mere instrumental and technical procedure separate from the meanings and values that necessarily inform the researcher's choices. As this is itself the implication of the main research question addressed in this study, it is argued that reflexive understanding is not just an element of methodology but is crucial to developing an appropriate research design.

This does not mean that the data collection process should be seen as relatively straightforward. There are important factors and issues to be taken into account, and it is to these, in relation to the specific characteristics of each case setting, that the next chapter is devoted.

Chapter Four: The Case Study Settings and Context

This chapter will begin by presenting relevant information about the data collection process in each setting respectively, then consider the characteristics of the data collected and the issues arising from those characteristics, particularly with respect to the transcription and translation of interview audio recordings. Because Shanghai is the primary case setting, and because this thesis is being submitted in England, there is proportionately more background information presented about the Shanghai setting than the English one. The English school is the secondary case setting; because it is in the same country as the one in which this thesis is produced, extensive background information about the formal education system in England will not be provided, as it is readily available via the British government's own website for the Department of Education (DfE, 2017). The corresponding information about the education system in Shanghai will not be assumed to be so readily accessible to English language speakers in the U.K., so this is a further reason for providing proportionately more information about that in this chapter.

4.1 The case study data collection process

The data was collected first in the Shanghai school during September 2014-January 2015 and in the English setting from March 2015-November 2015.

4.1.1 The Chinese setting

The Chinese case study data collection was undertaken in a Primary School in Shanghai. Both the Shanghai region, and this Primary School within it, have a unique role with the national Chinese education system. For this reason the setting should not be regarded as typical or representative of Chinese Primary Schools as a whole. In particular, the region has been at the forefront of educational change nationally, and within the innovations implemented in this region, the Primary School in this case study has been a lead school, as well as having specific characteristics that make it untypical of many other schools in the region. What all schools in the region have in common, though, is that they were required at the turn of the twenty-first century to implement major curriculum reforms. In order to provide a clear understanding of the data to be analysed, it is necessary in what follows to give relevant contextual information regarding both the national Chinese Curriculum Reform and the autonomous region of Shanghai's Curriculum Reform. Following that, the background of the school setting and teaching participants will be introduced.

The Context of the research setting in China and Shanghai

It will be seen, in the presentation of findings from the analysis of data collected in this research study, that the view of educational research by practitioners in the Shanghai setting is centred upon curriculum issues. That view is also influenced by the long history of China's relations with other countries, and Shanghai's particular history of being a major port city and hence at the forefront of those relations. Whenever the Chinese nation has been inaugurating trade with the other great powers in the world, it is the cosmopolitan city of Shanghai that has been its most

important interface. The trade is not just in goods and services; the importation of ideas from elsewhere, and their transformation according to principles of education reaching back two-and-a-half thousand years to the time of Confucius (551-479 BC), has continued to the present day. The cultural values informing those principles, together with the willingness to learn about other civilisations' ways of educational knowing, are evident throughout all of the participants' interviews.

Consequently, the cultural and historical resonances in what might appear to be informal everyday phrases, straightforwardly translated from Mandarin Chinese into English, need to be taken into account if the interpretation of that interview data is not to be understood in Western terms that might not be entirely appropriate, even when the concepts and ideas being considered could be said to originate in research knowledge produced in the West. For example, when Shanghai participants refer to 'scientific research', this term invokes an epistemological conception of science and scientific knowledge that was originally developed in Western Europe. Yet this conception is not quite as empiricist, or as associated with an assumption of detached objectivity, as might be the case if a writer on education in the U.K. were to use this term.

Whilst it would not be appropriate to this research study's context to provide a comprehensive historical survey of the interaction of Chinese education with other countries' systems, some historical perspective on curriculum reforms is necessary in order that the central concerns of the Shanghai participants, with respect to this study's research questions, are viewed in relation to the cultural framing of those participants' utterances.

Curriculum Reform in modern China (Secondary and Primary schools)

From the end of the Qing Dynasty to the beginning of the new era of the People's Republic of China in the 1950s, the curriculum was introduced from other countries, for example, Japan, United States and the Soviet Union. After the period of the Chinese Cultural Revolution in the 1960s to 1970s, and following the Chinese open-door policy in 1978, the construction of the curriculum was localised. The first national Curriculum Reform was from 1978 to 1985. A critique would be that it tended to be too strict and there were too many difficult topics to be addressed. The second national Curriculum Reform occurred from 1986 to 1993. It emphasised a reduction in depth and a lowering of difficulty. A critique would be that while the reform was paying attention to the totality of the curriculum system and development of knowledge aims, there appeared to be too much content. The third national Curriculum Reform was from 1994 to 1999. The core concept was to return the focus to students themselves and emphasised moral education. This focus on student-centred moral education will be seen to be evident in the Shanghai participants interview data

Under the third reform, the management of the curriculum was re-structured by dividing it hierarchically between central government, regional government and school districts. The responsibilities at each level are not made entirely explicit, though in practice political realities ensure that at the lower levels the limits to decision-making and flexibility are understood. Nevertheless, this relative decentralization was important for the corresponding relative autonomy that the Shanghai participants could access, though this is not seen by them as an entirely positive benefit. Initiatives at each of these three levels will be briefly summarised

below. It is important to note, however, that this reform produced tensions at all levels between the design of the curriculum and the implementation of it, due to the inclusion of aims concerning the all-round development of students' creativity, morality and practical abilities. Teachers had not previously been required to attend to these aspects.

Curriculum Reform in Shanghai (Secondary and Primary schools)

One significant impact of the two curriculum reforms in Shanghai has been to exert a long-term influence on the construction of teaching teams, via teacher networks or communities of practice, with a profound effect on the quality of education and the implementation of quality assurance. This effect is seen primarily in a need for such teams to engage in research into their own practice, in order to raise the quality of that practice. Because this is directly relevant to the focus of this research study, a brief consideration of those reforms is necessary, in order that the research participants' perceptions of research, both their own and that published elsewhere, can be better understood.

Shanghai is one of four autonomous city regions in China, along with Beijing, Tianjin and Chongqing. Although they are designated as autonomous, with respect to education as well as other public sectors they are in fact semi-autonomous. Each city region has the right to manage its own Curriculum Reform, though within the framework. The first Curriculum Reform in Shanghai was almost concurrent with the second national Curriculum Reform. It ran from 1988 to 1998. Accordingly, the Shanghai reform had to be adjusted continuously to stay in step with the changes in the national curriculum reform across the period they had in common. Within this

national framework, the Shanghai reform emphasized enhancing students' overall capabilities and well-being, and cultivating at the same time the development of individual characteristics. Shanghai's second Curriculum Reform has run from 1998 to the present. It can be divided into two periods. From 1998 to 2001, the trial of single subjects took place, including English and Information Technology. The second phase of the reform started in the autumn of 2002, when it entered the stage of the overall trial. The concept of three-dimensional objectives is worth noting. The dimensions consist of 'knowledge and skill', 'process and method', and 'emotional attitude and values', each of which is given equal weighting.

Curriculum Reform at the District Level

In 2011, the Shanghai Municipal Education Commission established a project group of twenty schools deemed excellent across the city, in order to adjust Shanghai's primary education development focus, to overcome the inertia of judging educational benefits by metrics such as benchmarks, the grading of material resources and the physical environment, and the measurement of the utility value of activities in terms of instrumental outputs. The aim was to let parents and society see real progress in education and educational interests through the development of students' physical and moral well-being.

In 2014, an Educational Bureau for the Shanghai district in which the school is located published 'Essentials of educational work in 2014' (Yangpu District Educational Bureau, 2014). The policy focus of this document was on establishing a

‘digital supermarket’ of shared curricular resources through co-operation with the University of East China, based on pedagogical methods for developing students’ creativity and ‘cultivating innovative thinking’ within a coherent theoretical framework, though the precise characteristics of this framework or its conceptual approach were not specified.

The school that is the setting for this research study was selected to join the implementation of this ‘digital supermarket’ policy in 2012. One of the main criteria for their being selected is that, uniquely for the district, their pupil enrolment has a high proportion of children from migrant workers’ families. The initiative as part of this collaborative work in sharing digital pedagogical resources has the aim of developing an online curriculum with specific reference to enabling the development of children from this kind of background, in the hope that such a curriculum might prove useful for schools elsewhere with a similar enrolment profile. Allied to this was an aim to encourage senior teachers to engage in ‘the exploration of pedagogical practices and theoretical research’. The document stated that in future the evaluation of senior teachers would include a criterion to judge the extent of that engagement. So the incentive for the school to demonstrate that its practitioners are implementing this engagement is very high.

At the time of writing the District Educational Bureau has incorporated in a policy document, ‘Essentials of educational work in 2016’ (Yangpu District Educational Bureau Office, 2016), an emphasis on community building, the construction of school alliances, and on laying a solid foundation for moral education in school, to enhance the level of education for social cohesion. These emphases were already

being developed during the period of data collection for this research study, as will be seen when the findings from the data analysis are presented in the next chapter.

Introduction to the Shanghai Primary School (Chuang Xin*)

[*NB: this is not the school's actual name but a pseudonym]

The Primary school chosen as the research setting was founded in 1961 (see the methodology chapter for a discussion of how and why this particular school was chosen). The school has 14 classes, with a total enrolment of 379 students aged 7-12 years, which is a typical size for Primary schools in the city. (Prior to age seven, children attend kindergarten.) There are 46 teaching and administrative staff, including the Headteacher and one Senior Middle School teacher, who is qualified to teach in both Primary and Secondary schools though in this school she has a predominantly administrative and managerial role. Of the forty-six staff, there are nineteen Senior Primary School teachers. One of these teachers has been awarded the special status of School Cultivator (*yuan ding*) for her excellence in both teaching and leadership. As a school leader, she has a special role in the interpretation and implementation of curriculum standards, which in the discussion of the data analysis findings will be seen to be significant. Thirty-seven of the staff are graduates, and all of them have achieved diploma level in their subject specialism. All teaching staff also have a relevant teaching qualification.

The school is a specialist school for folk music and art education, and a number of awards for excellence and well-being. (*Chuang Xin Primary School three-year development scheme*, January 2013-December 2016). The 2016 District report (Yangpu District Educational Bureau, 2016) on the school commends it for its work on building a school community and for its themed research project called 'Little

Stream' (*xiao xi liu*), about how to provide better curricular support for the aims of moral education across the Primary age range. This research includes a particular concern with the family education experience of migrant workers' children, called 'Flowing' (*liu dong*) children, continuing the metaphor of migration as moving along a watercourse.

The school's three-year Development Plan (2013-2016) has three main aims, in alignment with the city's regional policy. These aims refer to transforming practical problems into themed research topics; to designing curricular and homework activities appropriate to specific learning contexts; and to enhance professional development. The common thread to all three aims is that research should become an integral part of teachers' practice.

Data collection in the Shanghai school

The teaching team I observed and interviewed are a team of English subject-specialists. There are six subject-specialist female teachers, whose ages are from thirty to forty years old. Four of them are English subject-specialist class teachers. One is the team leader and the other practitioner is the secretary of the Communist Party Branch in the school as well as the curriculum leader for the whole school, who is designated as the School Cultivator.

In addition, interviews were conducted with the District Inspector of Schools and the City Inspector of Schools, who has the higher authority. The District Inspector is in her early thirties and the City Inspector, from the Shanghai Educational Municipal authority and with special responsibility for the teaching of English language, is in his late fifties. Weekly field visits to the school, observing classes and team meetings, began in September 2014, and data collection including all of the

interviews was completed by January 2015. The teachers participating in the study call themselves the 'English teaching and research team'.

The interview with the City Inspector was not originally planned; it was requested once it was known that he would be visiting the school. There are 1,439 Primary schools in Shanghai City region, so for the City Inspector to come and observe a class in this school is very rare. This visit provided the opportunity to interview him. The other inspector I interviewed was the District Inspector, who has a quite close and cooperative relationship with the school. Her role is equivalent to that of a local authority adviser in England, though for one district of the city only, which in this instance contains 156 primary and secondary schools. She is responsible for the training and professional development of all English subject-teachers in the district. She also works closely with the English teaching and research teams in several district schools, to introduce them to the current policy from the City level and to work with the subject teams in their lesson-planning and preparation of open class presentations for other schools. The teamwork and cooperation between the school's English subject teachers' team and the District Inspector show a shared domain of knowledge and a common aim of practice, as well their having a key role in building a school community to foster interactions and share ideas, with the aim of establishing it as a community of practice. Although the Shanghai school in this study could be said to be an emergent community of practice, this seems to be more evident at the level of subject teams than at the whole-school level.

In addition to the interviews, the English subject teaching team meetings were observed, as were the English teachers' classes on 5 occasions, on for each Grade from One to Five. This enabled ethnographic data to be collected to aid the

interpretation of the interview data that is regarded as primary, by means of participant observation at the team meetings and a purely observer role in the class sessions. The District Inspector attended the teaching-team meetings on four occasions. All of the interviews were recorded by audio; seven of the weekly meetings were also audio-recorded.

To sum up, there is a change of emphasis in successive curriculum reforms both nationally and locally in Shanghai. There is an apparent move from a focus on subject specialisms to a focus on children's holistic development in terms of moral education and emotional engagement in learning. The extent to which those curriculum reforms might have affected participants' views as Primary School practitioners, on the priorities for their practice and research into that practice, will be seen in the discussion of the findings from this research study (see chapter six of this thesis). The school's status as a leading Primary School in the district, and its specific characteristic as mainly a school for the children of migrant workers, means that the obligation on the class teachers to engage in research is itself conditioned by the expectation that they will produce outcomes in the form of pedagogic exemplars for other schools and by the challenges they face in developing learning resources aligned to curriculum aims and standards for pupils who generally do not have access to family resources to support their learning of English as a foreign language.

4.1.2 The English setting

The English case-study data collection was undertaken in a Primary School in a city in the North of England. For ethical reasons of preserving anonymity, neither the school nor the city is named here, being referred to as simply 'the English

school' throughout this thesis. Whereas in the Chinese case, it is important to identify that the school participating in this study is located in the Shanghai region, because the curriculum reforms under which the school operates are partly regional as well as national, there is no corresponding regional or city framework affecting the English school's curriculum. This is because the English school is part of an academy trust, which means that it is accountable directly to the central government's education authority rather than a local, city-wide one.

Academies are characterised by their autonomy from local authority control, freedom from the National Curriculum and ability to set their own staff pay and conditions ...

(Bartlett & Burton, 2012:170)

The British government's own definition has a slightly different emphasis: —

Academies are publicly funded independent schools.

Academies don't have to follow the national curriculum and can set their own term times. They still have to follow the same rules on admissions, special educational needs and exclusions as other state schools.

Academies get money direct from the government, not the local council. They're run by an academy trust which employs the staff.

Some academies have sponsors such as businesses...

(Great Britain, Department of Education, 2016)

Hence the precise location of the school within England is less significant than is the case with the Shanghai school. Nevertheless, the English school's location in an inner-city urban area, in contrast to a suburban or rural area, does need to be noted.

A teaching school

The second important characteristic to note about the English school is that it is not just part of an academy network but is a teaching school leading in that network. For

a brief description, history and critical evaluation of teaching schools see Husband (2015). According to the government-approved publication by the National College for Teaching and Learning: —

Teaching schools are outstanding schools who work with other schools to provide excellent support and training and development to both new and experienced school staff. Since 2011 they have played a central role in the government initiative to empower schools to raise standards by developing a self-improving and sustainable school-led system. They do this through forming alliances with supported schools and strategic partners who help to deliver aspects of training and development. (NCTL, 2015:3)

These schools are required to focus on six key areas, of which the most important for this research study is the commitment to research and development, though it will be seen that the focus on Continued Professional Development is also highly relevant: —

Initial Teacher Training; School to School Support; Continued Professional Development; Research and Development; Specialist Leaders of Education; Succession Planning and Talent Management. (NCTL, 2015:3)

In this school, every teacher is expected to be engaged in research. This is not typical. In 2006, the school had its most recent Ofsted (*Office for Standards in Education, Children's Services and Skills*) inspection prior to the research data being collected. Following that inspection, it was converted to an academy in 2013 (the collaborative academy trust's website, 2016). According to the school's official website, it was awarded 'Teaching School' status by the National College for Teaching and Leadership in 2012.

The Primary School encompasses children over three stages of development, which in government terms are designated as Early Years' Foundation (3-5 years old), Key

Stage One (5-7 years old) and Key Stage Two (7-11 years old). There are 13 staff in the school. In January 2016 there were 297 pupils enrolled (Department for Education, 2016). At the time of data collection, the school was in a formal alliance with eight other schools across the city; this had expanded by 2016 to eleven schools (eight Primary and one Secondary). Together this forms a learning community that also involves links with a Northern university in the promotion of evidence-based practice.

Restorative practice

The school's curriculum is based on three principles: —

- 1) That learning and teaching be underpinned by our **restorative philosophy**.
 - 2) That our pedagogical approach be **research based** and be **continuously evolving** to best meet our aims.
 - 3) All stakeholders have a responsibility for developing their own and others learning
- (‘Our Curriculum’ page of the school’s website; emphases in the original)

That the pedagogical approach is research-based and committed to continuous improvement (principle number 2) is clearly important for this research study. What is also significant for understanding the curricular framework within which the interviewees responded is the first principle, the ‘restorative philosophy’. According to the behaviour policy document produced by the English school in 2011, restorative practice expresses that philosophy and underpins the management of children’s behaviour in the school.

That policy document includes a ‘Restorative Practices Philosophy Statement’: —

Effective Restorative Practices foster awareness of how others have been affected by inappropriate behaviour. This is done by actively engaging participants in a process which separates the deed from the doer and rejects the act not the actor, allowing participants to make amends for the harm caused. Restorative Practices acknowledges the intrinsic worth of the person and their potential contribution to the school community. (English School, 2011)

These practices thus express an ethical commitment that aligns closely with the aims of the school to foster a collaborative community.

Data collection in the English school

Eight practitioners, all female, were interviewed from the Academy Trust to which this school belongs. Seven of the participants were from this school: the deputy headteacher, the school senior leader, five class teachers of whom two were of Recently Qualified Teacher (RQT) status, one of Newly Qualified Teacher (NQT) status, and one who was in a part-time post though highly experienced as a practitioner. In addition, a headteacher from another school in the academy chain was interviewed. All interviews were conducted on the school premises during the working day; this placed a time limit of twenty minutes on each one. Six of the participants were interviewed in July 2015; the headteacher of the other school was interviewed in September 2015; and in November 2015 the remaining class teacher, who was one of those with RQT status, was interviewed. On that last occasion, there was also a follow-up interview with the school senior leader.

4.2 Issues arising from preparing the data for analysis

4.2.1 Audio and transcribing issues

During the transcription of recordings, the data are altered. Non-verbal behaviour such as facial expression, posture, tone, rhythm and intonation is lost. The way in which the transcription is conducted depends on the goals of the research and of analysis in particular. (Boeijie, 2010:72-73)

In other words, transcription is also interpretation. Part of the interpretive procedure is to decide how many pauses, hesitations and repetitions were included in the transcripts. These are all features of naturally-occurring spontaneous speech, and to include them all would be inappropriate, not least because it would lengthen extracts unnecessarily as well as making them harder to read. It would also be inappropriate because the focus of the data analysis is not a linguistic one, or one centred on discourse analysis. On the other hand, to exclude them entirely may be detrimental to the reliability of the evidence quoted. As Silverman points out: —

[W]hen people's activities are tape recorded and transcribed, the reliability of the interpretation of transcripts may be gravely weakened by a failure to transcribe apparently trivial, but often crucial, pauses and overlaps. (Silverman, 2014:88)

4.2.2 Translation issues in the Shanghai data

One apparent reason for this is that the researcher might be regarded as one of them for those English teachers in the Shanghai school. The researcher and they share the same language and same cultural background, so it is somehow natural for the

participants to frequently use cultural references without stop and explaining its embedded meaning and why it is relevant to the interview question given. Therefore, it is the researcher's responsibility to give the full reference of those terms, in this case, the 'four-character idioms', to the reader. Furthermore, the four-character idioms are not presented in Mandarin Chinese and have to be translated for this thesis. In order that readers who are not from the same cultural background are able to grasp the weight of language used in the transcription, it is important to preserve the 'four-character idioms' and their associated meanings in the main thesis text.

The Shanghai audio recordings of both the interviews and the teaching-team were first transcribed into written Mandarin Chinese. The transcripts were then translated. It is in the nature of translation that something is always lost from the complex of meaning, particularly with respect to the connotations and cultural associations, that the original language expresses. At some points, where the reduction in meaning affects the argument, it has been necessary to follow Bazeley's guidance:

Use occasional phrases (or brief quotes) from the original language ... as needed, accompanied by a parenthesised translation or an explanation. (Bazeley, 2013:77)

Translation can never be entirely word-for-word, because the lexical and semantic fields do not share the same relations of word to meaning a one-to-one correspondence when moving from one language to another. That is, often the translation has to proceed holistically with respect to the meaning, rather than segmentally with respect to the linguistic signifiers.

The use of Four-character Idioms and their translation

The four-character idioms that occur in the Shanghai interview data are a traditional and concise way of expression often used by educated people but less likely to be part of everyday vernacular usage. They are more likely to be used in written discourse. This is because the cultural significance of using these idioms is usually only understood by those who have encountered them as part of their education, formal or informal. These idioms normally consist of four Chinese characters — hence their name — and most of them allude to historical stories and some aspect of Chinese cultural tradition.

For example, one such idiom is, '*li gan jian ying*', literally 'stand pole see shadow', meaning, if you set up a pole in the sun you will see its shadow straightaway (See Extract 1 [Tze Shun]). The phrase is used figuratively to mean 'take action to get immediate results'; the idiomatic noun phrase in English, 'a quick fix', expresses the denotative meaning of the figure. What is not encompassed by that translation are the cultural connotations. The phrase originates in a scroll attributed to a Taoist philosopher of the second century B.C., Wei Bo Yang, which no doubt granted authority to the phrase so that it became idiomatic amongst educated speakers. A corresponding idiomatic example in Western Judaeo-Christian culture would be a phrase that originated in a translation of the Hebrew bible, such as 'an eye for an eye, a tooth for a tooth', which incidentally is also a four-character idiom in Chinese (though the first part of the phrase, 'an eye for an eye', is usually implied rather than said explicitly): '*yi ya huan ya*' (literally 'a tooth for a tooth'). When a particular text achieves a central position in a culture, then phrases in that text can be used as a kind

of shorthand between those who share that cultural background and hence familiarity with that text.

Eventually, the phrase passes into the language and even if its provenance fades from cultural memory, it still carries the weight of tradition with it. For this reason, to translate the four-character idioms used by the participants in the Shanghai setting, who presuppose a shared cultural background with the researcher-interviewer, without explaining any of the cultural connotations of those idioms, would mean that anyone not Chinese reading this thesis might miss those resonances of cultural meaning and so regard the idiomatic usage as being less important than is likely to be the case. With the example of the pole-and-shadow idiom, its contemporary use to refer to Chinese acupuncture as a way of achieving quick results for a medical problem, while acknowledging that there might be an underlying problem which needs longer-term treatment, can be seen to be important for interpreting an interviewee's use of the idiom with respect to pressure being applied to her to carry out research that produces quick results. When this is used in the interview context of the participant talking about authority figures such as the City and the District Inspector, it is reasonable to infer that the interviewee assumes that the researcher-interviewer is aware of how in many aspects of modern life in urban China, when government officials demand action to meet short-term goals and get the credit for this, even if that is at the expense of longer-term consequences, this particular idiom of 'set up a pole and see its shadow' is used by those who disagree with that demand. In this way, an interviewee can express dissatisfaction with what is perceived to be an external demand to engage in a research project over a brief period in order to

meet what is also perceived as a short-term goal, without having to state that dissatisfaction explicitly.

Although full discussion of translating all of the four-character idioms used by the Shanghai participants would not be appropriate, the significant cultural meaning of one other idiom used by them is important to the argument that will be developed from the analysis of the interview data. So a brief discussion will be presented here rather than in the analytical discussion, where it might appear to be a digression from that argument derived from the analysis. On the other hand, to relegate all discussion of this translation issue to an appendix would imply that the cultural meanings evoked by participants' use of these idioms are ancillary to the main argument whereas, particularly in the case of the other idiom considered here, they are a key to it.

That other four-character idiom is *ke juan za shui* [literally, harsh extraction diverse taxes], translated here as 'exorbitant tax and levies' (see Extract 43 [Kiki Cheung]). This idiom's currency derives from a work by Guo Mo Ruo (1892-1978), a leading Communist Party intellectual and writer who also held senior government posts after the founding of the People's Republic of China in 1949. In 1947 he published a criticism of the Chinese Nationalist regime led by Chiang Kai-shek (1928-1948), where he referred to what he called the regime's attempt to exact exorbitant taxes and levies as only serving to act as an inducement to corruption. As 'exorbitant taxes and levies', the idiom passed into educated usage to refer to any situation where excessive external demands diminish the effectiveness of those seeking to act within that situation.

The use of this idiom in the interview data indicates that the teacher regards the need to do research as an external demand that takes time away from what she sees as most important, thereby diminishing its intended effectiveness. Research and teaching are regarded as separate activities, and this is attributed by the Shanghai participant to the lack of time available to schoolteachers. Like the pole-and-shadow idiom previously discussed, this idiom expresses the teachers' view that too often they are expected to engage in activities with respect to research but in circumstances that lead, in their view, to short-term outcomes that are not beneficial to ensuring more enduring improvements in pedagogy. It will be seen in the discussion of findings from the analysis of the Shanghai interview data that these teachers regard their deep understanding of the teaching-learning situation as something which is not being taken fully into account. It is in their view an understanding that enables them to know what is best for their pupils; it is crucial to their sense of professional identity and its associated ethical commitment. The importance of this understanding is a view shared in many respects by the teachers in the English setting, and for this reason it contributes in a significant way to the outcomes of the research study presented in Chapters Five and Six of this thesis.

Metaphor and cultural values

Idioms are 'conventionalized complex expressions' (Everaert et al., 1995:3), phrases whose figurative meaning cannot be analysed by considering their constituent words separately. Not only do they function as complete lexical units but they also do not operate semantically in isolation; rather, they tend to 'reflect coherent systems of metaphorical concepts' (Gibbs, in Everaert et al., 1995: 105). Just as the four-

character idioms used by participants in the interview data express significant cultural values, so the key metaphors used by them to describe aspects of their practice deserve scrutiny in their own right, as articulations of tacit professional knowledge and the experiential values and learning it embodies (see Visser-Wijnveen et al., 2009).

Philpott has argued that metaphors of pedagogic practice, such as those discerned by Clandinin and Connelly (1995) in their research on how teachers present narratives of their professional experience, show that ‘metaphors shape our understanding of the relationship between individual narratives and the social and cultural narrative context of which they are a part’ (Philpott, 2013:463). The main proponents of what has come to be known as conceptual metaphor theory are Lakoff and Johnson (2003; for a critical review of their work in relation to other theories of metaphor see Hart, 2008). Their principal contention is that metaphors are an intrinsic part of everyday language and that cultural ‘values are not independent but must form a coherent system with the metaphorical concepts we live by’ (Lakoff & Johnson, 2003:22). With this theory, they claim to be countering a number of ‘persistent fallacies’ that have been present as ‘historical barriers to understanding’ metaphor in Western culture since the ancient Greeks (Lakoff & Johnson, 2003:244). Of these, the most pertinent for present purposes is the fallacy ‘that metaphors are nothing but linguistic expressions — a mere matter of words’ (Lakoff & Johnson, 2003:245).

Anyone who has studied metaphor in the discipline of literary criticism with respect to the analysis of either Western or Chinese literature, and for whom expression is never ‘a mere matter of words’, would not be surprised at the identification of this

fallacy though perhaps would be surprised at Lakoff and Johnson's claim to be the first to notice it, because that discipline has always regarded metaphors as an expression of both conceptual thought and cultural values. For example, to go no further back historically than the mid-twentieth century, Clemen (1951/1977), in a renowned study of Shakespeare's imagery, developed a book-length argument about the dramatist's use of metaphor derived from everyday language 'by drawing metaphors to express abstract issues' (Clemen, 1977:159).

But according to Lakoff and Johnson's 'Afterword' to the 2003 edition of *Metaphors We Live By*, in 'literary analysis' it was only in 1989 with the publication of *More Than Cool Reason* that 'Lakoff and Turner demonstrated that metaphors in poetry are, for the most part, extensions and special cases of stable, conventional conceptual metaphors used in everyday thought and language' (Lakoff & Johnson, 2003:267). By arguing that these 'extensions' are a matter merely of 'innovation and novelty' as they state in summarising Lakoff and Turner's own discussion of Shakespeare's poetry (Lakoff & Johnson, 2003:251), they seem to be promoting the opposite fallacy of considering metaphors as nothing but the expression of concepts regardless of their linguistic form. As White (1996:300) points out, there is a reductionism in their argument that is in danger of dismissing discursive features as having little or no semantic effect. But 'metaphor works on both the linguistic and the conceptual plane' (Cameron, 2003:9).

Lakoff and Johnson's whole argument appears to rest on a false dichotomy between language and concept. In attempting to clarify the distinction between metaphor and metonymy, they state that it is easy to confuse the two:

If you are mostly looking at the *surface* forms of the language, rather than at the conceptual forms and inferential structure, you may not be looking in the right place...
(Lakoff & Johnson, 2003:265; my emphasis)

But to look at the 'surface' linguistic form *is* to look at concepts and inferences.

Lakoff and Johnson appear to have been led astray by their own conceptual surface-depth metaphor (they refer (Lakoff & Johnson, 2003:249) to developments in their theoretical approach as 'deep analysis').

Over twenty years before the first publication of Lakoff and Johnson's influential book, Brooke-Rose (1958) demonstrated that language is more than just the 'surface' expression of a conceptual metaphor, in that grammatical variation — for instance whether a metaphor is expressed as a noun or a verb — can modulate the meaning of a metaphor.

The relevant point for this present study is that it is not enough to consider the metaphors used by interviewees in terms of the fundamental concepts that can be inferred from their use. Attention must also be given to their precise linguistic, grammatical expression in the context of the educational discourse and the national language in which they are uttered. In this way the conceptual meaning of the tacit knowledge they articulate can be analysed more exactly, in order to discover the cultural specificity of its associations, in English or Chinese. Lakoff and Johnson are indeed right to re-iterate that metaphors are not just to be found in literature but are an integral element of daily discourse. For this reason, analytical procedures developed first in literary analysis and then in applied linguistics are applicable to the analysis of metaphors and idioms in the interview data. As Cameron (2003) argues, any discussion of metaphor in an educational setting necessitates consideration of

how that setting might influence its use, and of ‘the sociocultural histories involved’ (Cameron, 2003:27).

4.2.3 Researcher-participant relations

The purpose of this chapter has been to provide relevant contextual information about the two case-study settings that is both necessary and sufficient for the presentation and discussion of the findings resulting from that study. A final element of that contextual information is a brief consideration of the relations between the participants and this researcher, particularly as there was an important cultural difference in those relations between the two settings.

The dynamics of the researcher’s presence in the research setting, how it affects the research, and what she learns from it must become another significant part of the research setting.
(Holliday, 2002:154)

Holliday argues that in considering these dynamics ‘the researcher’s voice’ should be rendered in the written account of the research as a visible sign of authorship, because this ‘involves an acknowledgement that it is the agency of the researcher as writer that makes the research’ (Holliday, 2002:128). This necessitates a use of the first-person provided that it still maintains an impersonal orientation towards the matter in hand. The issue of how to describe researcher-participant relations from this point of view, which presupposes this is also a description of cultural relations in specific situations, has long been a methodological issue in ethnography and other qualitative research, and accordingly this was discussed briefly in Chapter Three. Here it will merely be noted that the use of the first-person grammatical voice in this section is not intended to imply any abandonment of that impersonal orientation.

In the Shanghai setting, the participants knew that I was carrying out doctoral research in their setting though as a research student from a British university not a Chinese one. They invited my participant-observation in their situation, rather than just agreeing to my having a purely observing role, because they were interested in furthering their knowledge and understanding of what they saw as Western approaches to learning and pedagogy. They asked me to deliver a presentation for the English-subject teaching team on 'Educational theories and principles for teaching and learning'. After this presentation, they said that the team consensus was that it gave them a better understanding of the research tasks and activities requested by the District Inspector. The team also showed great interest in British conceptions of action research and the status of it in British educational research, because this was the kind of research they thought they were being asked by the authorities to undertake. This interest in Western research and pedagogy formed part of their refining and recontextualizing practice, as will be discussed in the following two chapters of this thesis.

Although I was viewed, rightly, as a researcher based in a British university, I was also regarded as someone who shared the same cultural background and familiarity with the Shanghai education system, both because I am a mother-tongue Mandarin Chinese speaker and because I had experience of that Shanghai system as a pupil, student and professional teacher. This assumed, shared familiarity was enhanced by the fact that my field visits to the setting occurred weekly for one semester (five months). Consequently, the interviews were conducted in circumstances where I was also a participant-observer in their team meetings, and had been accepted by the team as a legitimate source of knowledge about some educational theories and principles

appropriate to the discourse of educational research as that has developed in the English-speaking West.

One of the effects of this researcher-participant relation in the Shanghai setting was that the tenor of the class teachers' interviewee responses became more informal than occurred in the English setting. One linguistic indicator of this in the Shanghai data was the frequent use of the second-person pronoun. This was extended to adopting often the subject-position of an authority figure, when the interviewee was explaining what the authorities were requesting or requiring. This in turn cast my role, as interlocutor, as being aligned with theirs as a teaching practitioner. In this way, by using this vocative 'you' almost to role-play their relationship with inspectors and other authority figures, they implied an empathetic equivalence between us, because they assumed I would be able to adopt their position in order to understand it. This enabled the interviewee on occasion to express more emphatic feelings about their own role and agency than would conventionally be expressed if the participant-researcher relation were more formal and distant.

In contrast, the researcher-participant relation in the English setting was relatively formal and distant. This was partly due to the shorter time spent in that setting, and partly due to the lack of researcher participation in team meetings and the lack of any observation of classroom practice. One research meeting was attended, though exclusively in an observer role. Above all, there was no assumption of shared cultural background, because I am a Chinese national whose only experience of the English educational system is as a graduate or research student. That is, although the interviews were conducted in English and the interviewees knew I was a research

student in a British university, the participant-researcher relation was much more one of insiders-to-outsider than was the case in the Shanghai setting.

One effect of this relation might be that the English participants in this setting were evidently accustomed to answering questions about their innovative practice in that setting from ‘outsiders’. In those circumstances a more formal, professional discourse is likely to be more appropriate than a relatively informal one inviting empathy with the participant’s position. The evidence for this will be discussed together with other analytical findings where this is relevant to the argument that will be developed in Chapter Six.

4.3 Conclusion

This chapter has provided relevant contextual information about the two case settings, information about the practicalities of data collection in these settings that influenced the quality of that data, and the issues arising in the preparation of that data for analysis. Because the researcher-participant relationship was slightly different in each setting, some consideration of that relationship was provided, to enable a reader to see how this was taken into account in both the data collection and the analysis of it.

The most important point to note about the Shanghai school is that it is a lead school in the implementation of curriculum reforms that have been made at both the national and autonomous regional level. Further, it is recognized as a centre of excellence in arts education. This leading role means that it is less typical of many other Primary schools in the region; also less typically there is a professional requirement for all teaching staff to engage with and in research. That the pupil enrolment consists of a large proportion of children from migrant workers' families also marks the school out as relatively untypical, though all these characteristics render it more suitable as a case setting for this research topic.

Chinese Primary schools are organized into subject-specialist teams. The participants in this study are a team of English-language development specialists, plus two inspectors at District and City level. Although the key element in the curriculum reforms, whose implementation the school is charged with leading, is innovation in child-centred moral education, this cross-curricular aim must be embodied in all subject teaching.

The English case setting is an urban Primary School in the north of the country. It is designated as a Teaching School, which gives it a leadership role within a network of academy schools in the same region, making it similar in this respect to the Chinese case setting. As with that school, all teaching staff in the English setting have a responsibility to engage with and in research. Although teachers in English Primary Schools are not organized according to subject-specialisms, all the English participants have a concern for language development and for moral education as part of their cross-curricular responsibilities. A key feature of the English School's moral education is innovation at the whole-school level in restorative practice. The participants in this study were selected with the aim of their representing a range of professional experience from newly-qualified status to deputy headteacher; a headteacher from another school in the network was also interviewed.

The principal form of data collection was the audio-recording of semi-structured interviews. In addition to consideration of transcription and other issues common to the use of audio-recording in all contexts, because the data in the Shanghai setting is in Mandarin Chinese, translation issues also needed to be considered. In particular, the participants' use of Chinese four-character idioms required explanation. For both settings, the importance of participants' use of metaphors to describe their practice in relation to research meant that this would become a prominent aspect of subsequent data analysis. Accordingly, some consideration was provided as justification for paying attention to that linguistic feature of the interview data and analysis of it as an element of pedagogical discourse expressing tacit conceptual thinking.

The principles of reflexive methodology established in Chapter Three also necessitated consideration of researcher-participant relations in each setting. The relationship in the Shanghai setting was one that was marked by the informality appropriate to interactions between ‘insiders’, where my position was as one of the insiders if only as a newcomer and temporarily. The researcher-participant relation in the English setting was one that was marked by the formality appropriate to ‘insider-outsider’ interactions, where my position was as a welcomed outsider, though also as someone who was recognized as a legitimate participant in educational research. This difference in relations would be taken into account in the interpretation of the data analysed in this research study; however, it should not be regarded as a difference that fundamentally affects that analysis, the results of which will now be presented in the following chapter.

Chapter Five: Findings from the Data Analysis

5.1 Introduction: the linear-analytic structure for reporting and discussing findings

This chapter continues with the linear-analytic structure of a case study report within the overall thesis structure. Accordingly, this chapter will begin by presenting the data analysis and findings, structured in terms of the top-level conceptual nodes derived from the coding used in the inductive thematic analysis of the interview data. The following chapter will discuss these findings with respect to the research questions, leading to the development of a relational model that indicates a proposed theoretical generalization from the data analysis. A final concluding chapter will consider the implications and limitations of the case study and the relational model for the initial research problem.

Despite this difference in the purpose of this chapter and the one following, there is also a common aim. This aim is derived from Richards:

It is important to contextualize quoted material... Aim to integrate data as part of your argument, not to flood the arguments with data passages. (Richards, 2009:202, 204)

Bazeley supports this aim, and provides a rationale for including some contextual information in this chapter. ‘In the results chapter... Provide sufficient context for your findings that others can transfer what you have learned to parallel situations’ (Bazeley, 2013:420).

The other procedural point to note is that the data analysis and findings reflect the conceptual node hierarchy derived from the coding process, but the proposed theoretical generalization reflects the relational model derived from an understanding

of how elements in that hierarchy might be related causally, that is, not hierarchically. In order to explain, in Chapter Six, the disjunction between these two ways of presenting and discussing the analysis, there will inevitably be some repetition, though this will be kept to a minimum.

Inductive thematic coding (Riessman, 2008:12) was adopted as a basis for data analysis, and by this means it was possible to go beyond the conceptualization of themes that otherwise might remain descriptive categories, generating from them theoretical constructs in a relational model with adequacy and stability (Bazeley, 2013) across both the Shanghai and English case data.

As a result of the analytic coding process that led to the development of a hierarchical category structure, four conceptual nodes were derived inductively as encompassing at the most abstract level of that hierarchy the themes that emerged from that process. Those four themes are: making research meaningful, valuing knowledges, social practice focused on ‘what works’, and agency with a sense of belonging. These themes will each be considered in turn, with supporting evidence. Note that in what follows, all extracts and quotations from the interview data are attributed to participants, who are given pseudonyms for the ethical reasons discussed in Chapter Three.

5.2 Making Research Meaningful

In responses to the interview question about what the word ‘research’ means to them, all participants made a distinction either explicitly or implicitly between published research and the activities as part of their own practice which they called research.

Three of the Shanghai participants made a point of stating that part of their practice

was called research by leaders or inspectors but they themselves did not regard it as research in the proper sense of the term. Tze Shun uses a four-character idiom to contrast the time-frame of the research the school practitioners are asked to do with that she regards as available to academics: —

Extract 1 [Tze Shun]

[J]ust like the City Inspector said when he came to our school, he said ‘a lot of the projects and research we are doing now are temporary’, which requires the effect of ‘set up a pole and see its shadow - to get instant results’ or a kind of reporting on experience. It actually has a distinction from academic research.

Wun Ya regards the practitioner research as being more about the learning development of teachers: —

Extract 2 [Wun Ya]

This cannot be called research, but should be called learning and making summaries... This is the process. I think that this is not called research, but should be learning instead.

Yim Woo points to the time-frame and a perceived lack of attention to theory: —

Extract 3 [Yim Woo]

The time period given is way too short. It’s not research. My understanding of research is that it must have a certain theoretical foundation then have practical experience to support the theory that one needs to find it useful. Now it feels to me like ‘talk about stratagems on paper - empty talk’. Is it useful? No, it isn’t.

The English participants all regarded themselves as engaging in research as part of their practice. Grace’s responses emphasized that this was not always the case, and it still may not be for all teachers, as the English school has a particular status as a ‘teaching school’ (by analogy with a ‘teaching hospital’).

5.2.1 Published research

In their understanding of published research, participants saw this as something in which they were not engaged. If what they researched were ever to be published, this would be incidental to their reasons for undertaking it. Indeed, published research was seen as something quite distinct, and even something from which they had felt distanced. For example, Shanghai participant Tze Shun said, speaking of the City and the District Education Inspectors, ‘They are closer to research. We have a certain distance from research.’

English participant Diana had regarded all research as distant from her practice, until she herself engaged in research activity. ‘When I think of the word research, if I think back 5 years ago, the word research was something very distant to me really and did not mean an awful lot. It was something I guess I saw very separate to school.’

That sense of distance, of research being something that class teachers do not engage in at all, is no longer true for any of the participants in this study. However, where research is understood to mean published research, Shanghai participants regard it as being distinctly different from what they are expected to do, whether or not they call what they do ‘research’. School leader Yim Woo refers to this distinctive kind as ‘scientific research’.

Extract 4 [Yim Woo]

Educational scientific research... If there is a comparatively mature way for me to practice, I will welcome it. Because I also need to update some of my concepts continuously, to update my class techniques, to improve the development of my education.

She would like to engage in this kind of research, but she does not regard this as feasible as ‘it is too complicated’. She also said it was ‘terrifying’ because her ‘specialist ability has not achieved this level’. She felt scientific research should be ‘professional’. Class teacher Wun Ya also uses the term ‘scientific research’. Both of these participants are concerned that if the research they are expected to engage in is the same kind as published research then they feel that they have neither the skills nor the time to undertake it.

Extract 5 [Yim Woo]

... am I afraid of research or not? I say every teacher is afraid. Because the meaning of it has changed. What’s more, we only have this handful of people, and we need to do this, do that, [but] we cannot do it all. We cannot do it all.

English participants also see published research as something external, from which they can learn if it is seen to be relevant. Interviewee Diana gave an example of one such research area for the school, with respect to children learning through peer critique.

Extract 6 [Diana]

... we have a member of staff who’s a designated evidence champion, and she is actively researching the work of Ron Berger ... So that we are better informed about how we are introducing it in school and the research that he’s done in the States in implementing peer critique.

For class teacher Dora the relevance of research is provided by a school policy: —

Extract 7 [Dora]

recently we've been looking at the marking policy at school. So I researched different methods of marking on, on some educational journals on the internet.

She sees the importance of research as also providing an indication of what has already been done elsewhere on a topic relevant for her school and her practice within it.

Extract 8 [Dora]

Obviously if research has been done and proven to be, you know, working well, then to try and, you know, follow the people who are doing the research. They're obviously doing it for a reason [laughs]

English school leader Elizabeth stresses that published research has historically been seen not just as something external to the professional activities of practitioners, but also something that was imposed on them.

Extract 9 [Elizabeth]

Well, it's quite an interesting concept, research and education in this country, because we've been very used to, as an educational system, to have things done to us as opposed to having people have that sort of professionalism where we can decide for ourselves what is best for our children and our schools... and the other thing is that certain types of research were imposed on the, on the practitioner...

She is sceptical of the analogy of education with the medical profession that has been advocated by policy-makers as an appropriate way of relating published research to teachers' practice, particularly because of the implication that such activity should remain separate from that practice.

Extract 10 [Elizabeth]

So I think ... it doesn't necessarily equate, does it, because you are talking about ... human beings, and relationships and that makes it a completely different dynamic.

The separation and hence inevitable distance of published research from classroom practice would, if this were maintained, also ensure that it would be less useful,

because it would necessarily not take that ‘different dynamic’ of specific practice in a particular school into account.

Extract 11 [Elizabeth]

...rather than things being done in, you know, in far-off universities where it's really never had impact on schools, now I think there's much more sort of forward thinking ... approach in terms of how we can, how we can make the evidence, classroom-based evidence actually be very effective.

In the follow-up interview, Elizabeth was asked to clarify what she meant by ‘far-off universities’. She responded as follows.

Extract 12 [Elizabeth]

You know, they actually have a, they have an understanding of what, what, you know they're in their universities and they are interested in actual finding research that actually works at, at basically at the ground level which, which is in the schools itself. But historically, there could have been a situation where there'd be research in a university which would then maybe, be thought to be useful to disseminate, so it would be done in a way where, maybe a, a, a teacher from, one teacher from a school would go on a training course and listen to what, what has been said. And then the impact was just one person being involved coming back into school and often what happened was a lot of the research that was happening wasn't really ever being disseminated properly into schools ...

She thought that now the emphasis is on projects carried out in collaboration with university researchers, rather than on dissemination, the historical lack of a connection between academic research concerns and school practice is being overcome.

Extract 13 [Elizabeth]

And there was no real connection between what was happening in universities in research and what, and in education, and actually what was happening actually in schools. So there was, you know

there was a big gap I think that's closing in the type of project that I've been involved with recently.

This clarification is highly significant for understanding how this participant sees educational research and its usefulness to school practitioners. This will be discussed in some detail in the next chapter.

Grace is also a highly experienced teacher who, unlike the other English participants, regards published research as worthwhile for the wider perspective it provides on 'what is working', by seeing the importance of knowing about practice in other schools and in other countries.

Extract 14 [Grace]

now teachers are actively encouraged to bring research into their practice through reading, through visiting other schools. So different types of research ... because we are a bigger partnership of schools where we can research things for ourselves and create research.

For her, published research is as much about providing information on that broader context of an educational issue, rather than necessarily being relevant to a tight focus on immediate classroom problems. However, the use of such research is something that she states was 'historically' viewed, perhaps rightly, with suspicion: 'the word research in schools, for us now, only in the past year have we really thought about using research, which seems crazy'. Previously, teachers would become fully qualified practitioners, 'And then after that time, very very little research creeps in. It tends to be research from above'.

From viewing published research as something that was an element of professional training, to a view of how it has appeared to an experienced practitioner, she continues:

Extract 15 [Grace]

So that the government, the local authority would access research and they would filter it down to schools rather than practitioners in schools actually accessing research themselves, so it's been... so the quality or the range of research that we've had in the past might have been limited or might have been erm... I don't want to say twisted but you know there might have been an agenda about it.

Here, Grace raises the same concern as that voiced by Elizabeth about dissemination as the main vehicle for how teachers encountered research. But her interpretation is different, in that the role of the local education authority is regarded by her as historically important.

The present situation in the school, as described by Grace, is better because there is now a collaborative approach to improving practice that no longer involves the local education authority.

Extract 16 [Grace]

I think it's changed. I think historically, 15 years ago, if you had a problem in your class as the class teacher, you used your own experience. And it still happens in some schools in this country now, where they're very much one teacher in their classroom. It's very isolating and they problem solve for themselves from their own experience. Currently here, we've had for many years, for ten years or so, a very collaborative approach where we would use our peers. And that's a much better, obviously a much better model of success.

This is in her view more successful because of the wider range of research material that can be accessed, but also because there is, through collaboration, more direct access than previously to what other practitioners have said about their experiences.

Extract 17 [Grace]

And then what's shifted in the last two, ten, two years? Very much looking at research papers, very much going out and listening to other people's experiences. And bringing **that** research and how the

brain works, about current case studies in other, in other countries. Looking at curriculum from other countries. That's very much what... what it's about here now. Very much so.

Although Grace is aware that teachers should consider a wider range of published and professionally available research than a focus on immediate problems might suggest, the overall aim of accessing that research to find out 'what is working' remains the same as for all of the other interviewees. Asked to comment on a recent occasion when she has drawn on published research, she responds, 'We do it all the time'. She goes on:

Extract 18 [Grace]

So in terms of research, reading... reading around, things that are working in other schools, through papers, so like the National, the National Head Teachers' Association publish papers of things that are working, and then we trial those with smaller groups in our own school to see what's going to work.

Like the other English interviewees, published research might indicate 'things that are working' elsewhere, but Grace does not assume that they are 'going to work' in her school without the teachers taking control of the process by carrying out trials of suggested practice in their specific school situation.

The only part-time teacher interviewed in the English setting perceived research in broader terms than other interviewees, though the relevance to school issues still provides the main criterion for selecting what needs 'looking into'. When asked to say what the word 'research' means for her, she responded as follows.

Extract 19 [Maria]

Research for me as a teacher would be perhaps something, looking into something in much more depth, something that we may have

come across as, as a school, something that we want to look at in particular, and then going off doing research on that, finding articles whatever... speak to other practitioners ... all those kind of things, and finding out something in more depth that we may or may not use back in school.

For Maria, issues that have arisen in school provide the impetus to access published research. That research is regarded as being no more important than the views of ‘other practitioners’, and the outcomes of the ‘finding out’ process are framed in terms of what ‘we may or may not use back in school’. Although she is part-time, her use of the first-person plural indicates a sense of belonging to the staff in the school, as the utility of the research would not be an individual matter but a collective one. Referring to her practice at a previous school, she says:

Extract 20 [Maria]

I did a project on speaking and listening in children, and raising children's speaking skills and communication skills. So that involved quite a lot of research first hand, to have a look and see what, what, where children should be at, what was the current thinking on developing children's speech and language.

Here the interest in published research and the use of it is directly linked to her own research activity. The aim in doing so is to determine a possible benchmark for ‘where children should be at’ in listening and speaking, and to discover ‘current thinking’. Is current thinking necessarily correct thinking? Maria doesn't say. All that can be noted here is that she regards being aware of current thinking as essential.

The three other English interviewees, Rebecca, Victoria and Poppy, are either newly qualified, in their first teaching post (NQT) or recently qualified, that is, having completed a probationary year in a teaching post (RQT). Their responses did not link the relevance of published research directly to the need to solve problems in their teaching.

Rebecca has an even broader conception than Grace of what research means. Unlike Grace and the more experienced teachers her conception is not related directly to a particular teaching situation, though it does include the idea of something needing to be supported by evidence.

Extract 21 [Rebecca]

It can mean a few things actually, like. Erm... [sigh] basically anything where you've had to seek something ... so even if you're asking someone else's advice, or if you're doing a lot more thorough research, but in terms of anything that I might access that's already been done, it's not just an opinion. There's something to back it up somewhere.

An assumption that research is necessary for developing evidence-based practice is a policy being strongly promoted in this English school. Along with this is a clear contrast between what can be learned from practice and what can be derived from published research, as the following remark indicates.

Extract 22 [Rebecca]

A lot of people around you have got a lot of experience. Even if you've not done it yourself, speaking to them directly, I think is a lot better than just reading on paper what we should do and things like that.

For Rebecca, the expectation to engage with published research alongside discussing practice with colleagues is also a matter of personal professional development, and this is the criterion for what is relevant.

Extract 23 [Rebecca]

[Y]ou wouldn't be expected to sit and read everything, but if you want to improve yourself I think you have to look, look at what's going on around you.

One cannot be sure, of course, as to how wide a range is implied by 'around you'.

When Victoria is asked what research means to her, she responds in terms that seem to express her own experience of having been required to undertake small-scale investigations as part of her teacher education degree: —

Extract 24 [Victoria]

Erm... Ooh... a lot of interviews and questionnaires. Erm... I think it's... erm... just a lot of work I would say, generally. Erm... it's... not normally fun. It's usually not enough, not very fun.

The hesitation may be related to the expression of a slightly negative view, especially if she perceives that a more positive view is expected. This aspect of the English interview data will be discussed further in the chapter that follows this one. When asked how she keeps up-to-date with her professional knowledge, Rebecca responds here in terms of what is expected professionally: —

Extract 25 [Rebecca]

I.. research things at... at the weekend. So I will make sure that I look at the curriculum and look what's expected of me.

Poppy, uniquely amongst interviewees, refers to critique in her context-independent conception: —

Extract 26 [Poppy]

Research to me means looking into things, critiquing things, having an objective and researching it, getting information from different sources, that kind of thing.

So, considering what is foregrounded about research by these class teachers who are new to the profession, this relatively context-independent view of research might be because they have more recently been in a university environment undertaking teacher education courses, so they are used to considering published research that does not have an immediate application. This may account for their responses being different in this respect from those of other participants.

5.2.2 Practitioners' own research

For seven of the eight Shanghai interviewees, research is only meaningful if it helps to solve an immediate problem. When asked for her definition of educational research, District Inspector Kat Chu replied, 'It will mainly point at our current situation of teaching and learning and anticipate the situation of our students. Thinking of solutions towards the current problems is my role. This is our roles.' Later in the interview, she contrasts research that teachers do with the research carried out by academics, though she still demands that this university research is as practical as that undertaken by teachers.

Extract 27 [Kat Chu]

[T]here is some research which is general... first of all, I think the research must be practical and also one should consider teachers' practicality, that is, the time. Because those researchers, they have a large amount of time and they read materials and they do data collection, yet for us it is impossible. There is no time to carry it out.

The City Inspector echoes the District Inspector's perception, seeing research as intrinsic to pedagogy and having a practical orientation to help in solving an immediate problem. 'Instructing and researching are one. What is "teaching"? Using research methods to solve the problem of teaching.'

The Shanghai teachers themselves are all wary of being asked to undertake projects that are too short-term to investigate complex problems fully, on the expectation that they have to come up with quick results. The metaphor used by one participant, Tze Shun (see Extract 1 above), when asked what she understands by research she is doing, is, 'set up a pole and see its shadow'. In Tze Shun's view, published research

is what counts as ‘scientific research’. Research that she undertakes has some elements of this, but the demand for quick results by doing short-term projects undermines the prospects for it to be fully ‘scientific’. The pole-and-shadow metaphor is in Chinese language a four-character idiom. These idioms and their significance have been discussed in the context chapter four above. Here it is sufficient to recall that it refers to the idea that if one puts a pole in the ground one can observe instantly the effect of doing so, namely that the pole casts a shadow. The metaphor emphasizes what, for Tze Shun, distinguishes her own research activity from ‘academic research’. She explains further what she means by this distinction.

Extract 28 [Tze Shun]

One is that we lay emphasis on reporting our experience [literally, *jing yan shi fang*, experience release]. Whereas in academia, what I read is that it is an argument of ideas. Then, we emphasize the actual practice, whereas in academia there might be gaps towards practice. It might be pure theories, or when talking about actual practice, there might be a need to do follow-up research, or there might be no follow-up research at all in the end. So, carrying out practice and theories is different.

For this reason, of being expected to engage in projects that emphasize the participants’ actual practice and lead to instant results, all the other participants also contrast what they are engaged in with published research undertaken by university academics. This is even expressed by class teacher Wun Ya, who was the one Shanghai participant who did not see research as a resource for solving immediate problems. Instead, she regards the activities she is being asked to undertake as a matter of professional learning and development (see Extract 2 above).

For the English interviewees, the question of the relationship between professional development and what teachers are doing when they are regarded as undertaking research themselves is viewed from a different perspective, though acceptance of the perceived gap between what is produced by academics as research findings, and what is meaningful for a specific school context, is similar in both settings.

Extract 29 [Diana]

Principally we were looking for some direction as to strategies that work well... I think it was a gentle, structured stepping-stone for teachers, to step in to that world of action research... [T]eachers, myself included, in the past, would see something as, maybe hear about something, for example, the assessment for learning, action research that was very current in schools about, what, seven eight or nine years ago, and would just try it out really without questioning the effectiveness of it; because somebody said it was good, so we just do it. [Laughing] So I think it's [referring to teachers doing their own research] developed, it's helped develop that enquiring mind actually and that actually how can we test it out to see if it's working in the context of whichever school.

Here headteacher Diana contrasts the past situation, when practitioners would accept findings from published research and then seek to incorporate them in their own teaching, with the present one where practitioners aim to undertake their own research into their own practice, in order to establish findings which, by arising directly from that practice, are likely to be more 'effective', with effectiveness being judged in terms of what works in that immediate context. The implication is that the past relation to research was ineffectual, though Diana is careful not to suggest that practitioner-based research is necessarily going to produce more workable results. What it does, however, is put teachers more in control of the whole process: 'we test it out to see if it's working in the context of whichever school'. This suggests that a more rigorous approach is now open to teachers who in the previous situation could

‘just try it out’. It also has a professional development benefit: ‘it’s helped develop that enquiring mind’.

School leader Elizabeth in the English setting expresses a similar view, though the contrast with the past is more emphatic than for Diana, as indicated by the spoken emphasis she gives to ‘now’ in the following extract (indicated in bold font).

Extract 30 [Elizabeth]

[I]t’s a whole shift of having a profession which really had, which just had things thrown at them, or thrown at it should I say, to **now** people actually being much more sort of measured and involved in what they take on and what they do actually believe will work with children, within their own school. Because what works in one school may not work in another school for example.

For Elizabeth, the past situation was an imposition: she uses the metaphor of the teaching profession having ‘things thrown at them’, a perception that the process was almost an aggressive act. Like Diana, she sees the present situation as being more rigorous: ‘much more sort of measured and involved’. Above all, the present situation is better because it focuses on what works within the immediate context. ‘Because *what works* in one school may not work in another school for example.’

Elizabeth used the phrase ‘what works’ seven times in total in her interview responses, which may indicate how significant this aspect of research outcomes is for her. This is the case whether she is discussing her view of published research (the relevant phrases are given in italics): ‘I certainly would look at, what’s out there, what research is there, what are other people saying in terms of *what works*, what doesn’t work’; or whether she is discussing research activity within the school: ‘So that’s something we’re talking about **now** in school. And we’ve got these bits of evidence coming from various sources, then we have to have a professional dialogue

in terms of *what actually works* for this school.’ Note again the emphasis on the present, with respect to the immediate context. She also relates this to professional development within the school community, which like Diana she sees as an important benefit of research.

Extract 31 [Elizabeth]

You know, what you have to do, you have to grow and evolve, and think about *what works* for your organization, but of course that’s to say that research obviously has an impact on that, because otherwise we wouldn’t even be trying these ideas...

‘What works’ became a sub-theme in the English interviewees’ responses, with six of the eight participants mentioning the importance of this, as can be seen from the following code summary table. Note that the Shanghai interviewees did not use the phrase ‘what works’, though all school-based participants in Shanghai mentioned the importance of a ‘class focus’.

Table One: Instances of interview responses coded at the node *what works*.

Participant Name	Number of instances
Diana	6
Dora	3
Elizabeth	7
Grace	2
Maria	1
Poppy	2
Rebecca	0
Victoria	0

Class teacher Dora states the view common to the six who referred to it, that finding out ‘what works’ is what makes research meaningful, even if it is research that has been carried out elsewhere.

Extract 32 [Dora]

Research means to me just finding out new methods of... of learner I guess. Finding out what other people have researched. *What works* well, maybe what doesn't work so well ... and trying to implement them in the workplace, what best fits your working environment.

Does this mean that the interviewees are regarding as irrelevant, or at least are not interested in, research that seeks to investigate educational issues beyond the classroom or school level? This is an important consideration, not least because a focus on the immediate context could be seen as both a criticism of teachers' use of research and as positive corrective to a perception that academic researchers ignore practitioners' immediate concerns and situation. The possible interpretations of this key data finding will be discussed in the next chapter of this thesis.

All participants in both settings attribute meaning to research with respect to their professional focus on solving practical problems in their immediate context. It can be seen from the code summaries (see next page for Table Two and Table Three) how often the participants refer to problem solving: a total of 41 instances for the Shanghai participants, and a total of 25 for the English participants.

Table Two: Instances of interview responses coded at the node *problem solving*.

Shanghai Participants

Participant Name	Number of instances
Kat Chu	2
Kiki Cheung	11
Ming Shuk	9
Nam Chau	3
Po Choi	5
Tze Shun	3
Wun Ya	2
Yim Woo	6

Table Three: Instances of interview responses coded at the node *problem solving*.

English Participants

Participant Name	Number of instances
Diana	1
Dora	1
Elizabeth	4
Grace	6
Maria	3
Poppy	4
Rebecca	5
Victoria	1

The most instances for the English participants were by the deputy headteacher, Grace (6), and the recently qualified teacher (RQT) Rebecca (5).

There is no obvious pattern here, other than that in each setting one of those with a high number of instances to problem solving is a participant in a leadership role.

The Shanghai participants, however, perceive a more direct relationship between research and pedagogical practice than was evident in the English participants' interview responses. One summary way of indicating this is by considering the instances of interview data coded at the node *pedagogical knowledge*. Accordingly, this will be considered in presenting the results under the theme of *valuing knowledges*. Here, the meaning of research that is closely linked for participants to being expected to engage in research will now be considered, as this reveals a slight contrast in participants' responses with respect to the two settings.

Shanghai District inspector Kat Chu sets out what for her is an iterative cycle of identifying teaching problems, then researching them through reflection to identify further problems, which in turn inform further research activities that feed back into classroom teaching.

Extract 33 [Kat Chu]

What do we do when we discover the problems? We will do the follow-up research on the basis of the questions in our District. For example, during the research into overall unit design, we find problems on homework assessment. We then carry out research on this topic. We take account of examples of lessons... By a process of teachers' teaching will we know how we solve problems in our practice.

As District Inspector, Kat Chu uses the first-person plural pronoun 'we' to denote what she regards as the good practice throughout her whole domain. Experienced

class teacher Kiki Cheung expresses the same perspective as a straightforwardly direct relation, in giving the reason for being expected to engage in research:

Extract 34 [Kiki Cheung]

Actually every one of us knows that research is very purposeful and necessary. The better the research is, the better the teaching will be.

Class teacher Nam Chau shares the feedback perspective, and introduces the factor of experience, with the sense of teachers' learning development.

Extract 35 [Nam Chau]

My feeling is that the research we are doing is based on our experience, that is, it is derived from our own practice and experience. This might be a usual procedure, then we treat it as a reporting matter for doing further research.

The idea that research is based on experience might seem surprising, if one's sense of research is that of systematic investigation aiming to be impersonal and objective; though once the link with professional development is acknowledged, then what becomes apparent is the necessity of engaging in research activity as part of reflective practice, in order to become a better teacher and not just merely to explain phenomena. As Nam Chau puts it:

Extract 36 [Nam Chau]

Yes, research is part of my work. Last time, the City Inspector mentioned that the primary level of teachers is 'teaching'. But actually research is needed.

But however necessary it may be for professional development, research for Nam Chau remains a requirement to be fulfilled as part of the job, problem-solving with a definite outcome rather than being an open-ended commitment to enquiry for its own sake. In response to being asked whether research is expected of her or is it self-initiated, Nam Chau replies without hesitation, 'It is a task'.

Another class teacher, Wun Ya, also stresses the importance of reporting outcomes and the pressure on practitioners to do so:

Extract 37 [Wun Ya]

It is an aspect of pedagogy. There are so many lines of enquiry coming down [from above authorities] and there are so many articles that teachers are required to write, so basically every teacher is continually writing. So what I am saying is... research is needed, but it shouldn't be presented this way, right? It should change to a better form... you raise your own questions. Then off you go and write articles, rather than you write articles required by above.

Note that the research articles Shanghai teachers are expected to write are mainly on their own research projects in progress, for the District Inspector. The Inspector may then decide to ask the teachers involved to make a presentation to practitioners from other schools at regular district meetings. It would be unusual for these project reports to be developed into research papers for wider publication.

School leader Yim Woo also feels the pressure from above:

Extract 38 [Yim Woo]

I remember before, when everybody found it difficult to carry out research and were allowed longer time in doing it... However, it's different now; people just make noise. Noise from above then suddenly they want your [report's outline] plan out by 5th January [for example] and making a [full] report by 15th January. Things are done this way since 2013. We are just lost down here.

The sense of hierarchical authority relations as predominating over a collaborative, communal structure is more marked in the Shanghai interviewee responses than in the English ones, and will be considered in the analysis of the theme of *social practice focused on 'what works'*, as it bears directly on the notion of a community of practice and collaborative cultures. It is worth noting, however, that although there

is a strong expectation from the authorities that Shanghai teachers engage in research, the actual research topics are seen as being more of a matter of individual choice than as being determined by school or district policies. As Yim Woo points out, this discretionary choice can result in teachers feeling more pressure rather than less.

Extract 39 [Yim Woo]

For example, one topic question, is it a real question or a false question, a period of time will be spent on that. It's not like you clap your hand to your head and say I have a topic question, then it will become a question for research. This is not scientific. However, we are all doing it now. That's why we are terrified.

Yim Woo's comment is significant for how Shanghai participants see what may be regarded as empowering their agency in undertaking research into their practice as actually being something that undermines their capacity for professional action.

For the English participants, the expectation to engage in research also has an element of personal discretion. Asked if she thinks research is expected or self-initiated in the school, Victoria responded:

Extract 40 [Victoria]

I think erm... it's expected. Definitely. But it's also self-initiated. So ... but that depends on the... the... that affects the amount of research that's produced. So, for example, I think all people would do it, but the extent to which some people will delve deeper into certain subject areas is dependent on specific individuals I would say.

The hesitation over indicating the extent of the expectation might suggest that it is not entirely clear, or that 'the amount of research' is deliberately not specified. The metaphor of delving deeper might also suggest that discovering a full explanation of a particular issue is more a matter of personal discretion than an institutional

requirement. At no point, though, do any of the English participants express a sense of being asked to do something beyond their current capability; nor do they mention that the personal discretion they are given over the nature and extent of their research activity might lead to a sense of being fearful or ‘terrified’. English headteacher Diana relates the expectation to research to the need at school level to investigate pedagogical ideas rather than merely to implement them, and consequently to be more selective about what should be researched.

Extract 41 [Diana]

So I think it’s... .. yeah we’re more refined now. Don’t think we’re there [laughing], there’s still a long way to go, but we are more refined in our approach. We now see research as being the way forward when we’re looking at initiatives and selecting very carefully now.

Diana’s use of the first-person plural pronoun, ‘we’, reflects her school-level perspective and shows that the expectation of staff to engage in research is seen as a school policy that is put into practice collectively. This might account for the English teachers not mentioning any concerns at the prospect of undertaking research.

Constraints on doing research were mentioned explicitly by seven of the eight interviewees in the Shanghai setting. The only interviewee not to do so was the City Inspector for Education. In contrast, none of the English interviewees made explicit mention of any constraints on their research activity. It should not be inferred from this that no such constraints exist for these participants. Indeed, given that it could be observed directly that they were as busy with daily school activities as their Shanghai counterparts, it is very unlikely that they experienced no constraints. Their lack of explicit mention of any could be attributable to their different relation to this interviewer, both because they are members of a different culture from the

interviewer and because they only met the interviewer in that situation, whereas the Shanghai participants already knew the interviewer as someone who had observed their classes and attended their staff meetings. It may have led the English interviewees to be less likely to mention negative aspects of their professional practice, when talking to someone who was an ‘outsider’. This situational factor has been discussed previously, and it will be taken further into account in the next chapter.

In the Shanghai setting, class teacher Kiki Cheung compares the position of teacher-researchers unfavourably with that of academic researchers: —

Extract 42 [Kiki Cheung]

[F]irst of all, I think the research must be practical and also one should consider teachers’ practicality, that is, the time. Because those researchers, they have a large amount of time and they read materials and they do data collection, yet for us it is impossible. There is no time to carry it out.

She repeatedly emphasizes the time constraints that led, in her view, to a neglect of teaching priorities. In the following extract the time constraint is mentioned four times and it is summed up in the four-character idiom, ‘exorbitant tax and levies’ : —

Extract 43 [Kiki Cheung]

I used to use the phrase ‘exorbitant tax and levies’ to describe it. I think the recent one or two years are getting better, which has returned to the main theme of education ... Like, a teacher... is required to do research, then to write up a research report of about how many, how many words. Articles... a huge amount of time was spent on this. There was even a period of time that teachers did not have time to prepare the lessons. Students’ exercises were corrected roughly. A great deal of time... because people from above were urging you... I think this aspect [referring to research] was occupying lots of time.

The repetition for emphasis is presented here as being important to note because, as she says:

Extract 44 [Kiki Cheung]

It is not that we do not want to do it, instead, we do not have the time and energy to do it ... For us, research is the side work, our main job is in the class.

A third comment appears to acknowledge that research might help to solve problems arising from her teaching, though it diminishes the energy needed to do either teaching or research effectively: —

Extract 45 [Kiki Cheung]

Then, taking students' problems into account, I can develop research, right? But now there are too many things, and your energy is torn. You have no chance to focus entirely on one particular thing.

Lack of time was the constraint most often mentioned by the Shanghai teachers.

Class teacher Tze Shun's comment represents the commonly held view: —

Extract 46 [Tze Shun]

As a matter of fact, one should have read some related journals. However, I think our time is limited... Time is occupied by admin chores, or helping students fill the gaps in their studying.

She accepts the need for theoretical understanding, though thinks that the time for critical reading is not available, because of the intensity of daily teaching: —

Extract 47 [Tze Shun]

In my impression, if you need to learn this theory, you should know related works. How did it come out before? It has an origin. Or one should understand theories similar to it; but all of these require plenty of time for reading. So, it is hard for our current tempo of work.

Commenting on a colleague's position, Tze Shun adds that the sense of only playing a minor role as a researcher, unlikely in her view to be able to produce innovative or original work, does not achieve a high-quality outcome: —

Extract 48 [Tze Shun]

[S]he only participates in the project, she is not the main researcher and she is only a participant. Doing research requires experience and theories; those who have both will bring research to a new height. The quality won't be high for us in parroting what others say.

Her colleague Wun Ya is also concerned about the quality possible within the short time periods required for reporting on research, again raising the question of what might be regarded as the teacher's 'main job': —

Extract 49 [Wun Ya]

What we are feeling now is that it seems that scientific research seems to become our main job ... because you need to do scientific research every semester, and you are required to submit articles every semester [voice with agitated emotion]. This kind of article is not like you can write every semester.

The other main constraint, which is seen as affecting the quality of outcomes, is that the Shanghai teachers think that they are expected to have research skills they do not necessarily possess. Yim Woo is the most emphatic in expressing this view, indicating the emotional stress which expectations may be placing on her.

Extract 50 [Yim Woo]

What we do is doing something on the surface. Like you say something, say something, and you say something. What can we do? The most we can do is to relate what we say to what we do practically. I want to do something on research, but don't know how to... What can I do? I... I am very distressed.

This is related to her statement of being 'terrified' (see Extract 39 above). Yim Woo recognizes that these constraints might be overcome or at least alleviated by

collaborative work in teams, though at the time of this study the teams in the Shanghai setting focused primarily on resource development.

Extract 51 [Yim Woo]

A team can have complementary advantages, for example you are lacking theoretical grounding but I have it, we can complement each other, then we all have it. What I think is that we can have educational scientific research, however not too much and this allows us more time in the process for teachers to really get engaged. This is it.

In summary, the constraints on research, which were only mentioned directly by the Shanghai participants, raise significant issues for these teachers, though what they also point to is how their conception of research crucially affects their perceptions of whether it is feasible to engage with it. That is, *making research meaningful* as a theme emerging from the interview data also relates closely to the other themes, particularly to that of *social practice* and what participants regard as its priorities. This is exemplified by class teacher Nam Chau's response when asked if she regarded research as part of her professional work as a teacher of English: 'It is OK to carry out meaningful research'. She was asked to clarify what she understood by this phrase: —

Extract 52 [Nam Chau]

[L]ots of research... its time schedule is too tight, only one semester. What can you find? Is it real authentic research? If you do the research because you have to do it, then it loses its meaning.

The practitioners distinguish between the meaning of research and research that is meaningful to them. To be meaningful for them, the research must meet a criterion of relevance to their professional context. What kind of knowledge does the published research or their own research produce? Is it the same for each kind? And what kind is valued by participants who are using that criterion of relevance? To consider these

questions it is necessary to present the data findings from the second theme: *valuing knowledges*.

5.3 Valuing Knowledges

5.3.1 Explicit codified knowledge

For the Shanghai participants, explicit and relatively codified knowledge of what they think they need in order to be good teachers comes from two main sources. One source is academic research, which they see as providing the kind of explicit knowledge that cannot be applied directly but which nevertheless they need to ‘digest’, as class teacher Kat Chu put it, referring to research that the City Inspector had published in book form.

Extract 53 [Kat Chu]

Just when we know the book was published, we would get the book and study by ourselves autonomously. However, the books will not be our training materials, they are a kind of source for us to digest.

A second source of explicit knowledge is for them the written or spoken representation by other teachers of their ‘findings’, either from small-scale research undertaken by those teachers or articulated reflections by them on their own practice. Class teacher Ming Shuk regarded this source as particularly useful for her professional development.

Extract 54 [Ming Shuk]

[T]hrough learning other teachers’ findings, we will make a school-based or even a class-based adjustment. It might be a great help to my future teaching.

Note that the relevance of such explicit knowledge to the school practice is the reason for its usefulness. If it helps to make ‘adjustments’ in teaching, this makes the knowledge worthwhile, though to have this value it should offer excellent examples and be inspiring, as Ming Shuk also points out: —

Extract 55 [Ming Shuk]

So there is a need for us to look at other excellent examples of class teaching, then, we are looking for some inspiration of teaching or how new teaching theories can be implemented in class well.

The City Inspector is clear that explicit knowledge is the most valuable when it emerges from the practice of a good teacher using her ‘implicit’ knowledge:

Extract 56 [Po Choi]

Teachers are classified according to three kinds. Ordinary teachers can solve the problems of teaching materials and their imparting knowledge; the second kind of teacher, in the process of imparting implicit knowledge, explicit knowledge will emerge. The third kind of teacher can produce explicit outcomes... It's necessary for teachers to produce, it's just the degree of this explicitness is different.

Exactly how explicit knowledge emerges from the implicit kind is not so clear, and the teachers themselves do not explain the process. Instead, they tend to emphasize the gap between the kind of explicit knowledge produced by academics and whatever they produce, even when it is called research. As class teacher Tze Shun says, ‘[W]e emphasize the actual practice, whereas in academia there might be gaps towards practice.’

School leader Yim Woo uses a height-depth metaphor to explain both the requirement to produce explicit knowledge and her sense that something ‘interpersonal’ is maybe lost in that process.

Extract 57 [Yim Woo]

Now the situation is that you have to open a research topic and also you need to have a plan for its solution. Then it is necessary for you to rise to the height of theory in order to support solving the problem in a scientific way. I don't know. There are lots of things that cannot be explained by science, including interpersonal relationships... So you say scientific research, on this aspect, I have problems with it.

Among the English participants, there is a certain ambivalence towards this kind of knowledge when it is coming from the first source. Here advice from colleagues becomes a more useful source of explicit knowledge, as class teacher Victoria says: —

Extract 58 [Victoria]

I think as much as you read things, and learn about things within like university erm... once you are out there doing the thing, it's... I feel like I learn a lot more and I feel like I take on board a lot more of what's being said and what's expected. Whereas, erm... if it's not in practice, if it's not a real situation in the classroom, sometimes it just goes over my head.

For class teacher Rebecca, the explicit knowledge that experienced teachers can communicate about how to do something is the most helpful:

Extract 59 [Rebecca]

Even if you've not done it yourself, speaking to them directly, I think is a lot better than just reading on paper what we should do and things like that.

As one of those experienced teachers, school leader Elizabeth sees the value of research and the explicit knowledge it might provide in terms of professional development similarly to the view expressed by teacher Ming Shuk in Shanghai: —

Extract 60 [Ming Shuk]

You know, what you have to do, you have to grow and evolve ... research obviously has an impact on that, because otherwise we wouldn't even be trying these ideas, if you didn't have an idea in terms of what research is telling us.

She thinks that the ambivalence this brings, regarding both the authoritative status of academically produced knowledge and of the perceived skills gap, can be more easily overcome if explicit knowledge is not just obtained from 'reading on paper' but from engaging in dialogue with academics, whom she calls 'professional researchers'.

Extract 61 [Ming Shuk]

We need to have help and support... I think it's very helpful to have dialogue with action, with people who are professional researchers. Because they know how to do research. And, and they can share that knowledge with, with, with teachers. Teachers are not researchers... So, there's a place for, for, you know, us to come together.

The English school uses the role of 'evidence champion' to help class teachers to determine the explicit knowledge that might be relevant to their practical concerns. The evidence champion scrutinizes the knowledge produced by academic researchers on behalf of the school community. As the deputy headteacher Grace indicates, this is not just a matter of disseminating codified knowledge on matters of interest to the school; the person in this role is also expected to help protect the rest of the teaching staff from information overload.

Extract 62 [Grace]

I mean there's so, there's a wealth of, of, of material out there that they haven't got time and don't need to be, erm, concerned with. Not because I'm trying to shelter them, but I'm trying to protect them from, from, from being bombarded with too much information.

It may partly be for this reason that class teachers such as Maria do not regard academic research as the most highly valued source of relevant explicit knowledge: —

Extract 63 [Maria]

I wouldn't necessarily go to research as my first port of call when faced with the challenge in school.

Class teacher Rebecca shares the view that this source is less valuable, though she also summarises the general ambivalence towards explicit knowledge derived from any external authority, seeing it as possibly providing informed guidance yet also viewing it with practitioner scepticism: —

Extract 64 [Rebecca]

I often read books that have been published by sort of consult... like teaching consultants and things, because I know myself that I can overthink things, and it's nice just to have something there that says, well, in theory 'this is it'. It's not necessarily always right.

In addition to remarks on explicit, codified knowledge arising from educational research in general, six of the eight Shanghai participants also mentioned codified knowledge related to a curriculum subject, namely, English as a foreign language. None of the English participants referred specifically to curriculum subject knowledge. The difference may be accounted for by the different teaching role of Primary School teachers in Shanghai. There, all practitioners in these schools are required to be subject specialists, and in the case of this research study the participants in the Shanghai school setting were all specialists in teaching English.

The main concern of the Shanghai teachers was how they were expected to apply their subject knowledge in pedagogically implementing the curriculum standard in that subject. Here, the question of codified knowledge comes into relation with the

expected level of attainment and learning development of pupils, as stated in the regional government documentation containing that standard. Class teacher Tze Shun pointed to an implementation problem similar to that already indicated in participants' view of published research; teachers are required to bridge the gap, as they see it, between the codified knowledge made explicit in the curriculum standard and the knowledge needed to implement that in the classroom: —

Extract 65 [Tze Shun]

Children need to learn step by step, don't let them absorb that knowledge in the Primary School that they should learn later on in secondary or high school. However, now the question lies in the evidence [which] is not sufficient for teachers to carry out according to the Curriculum Standard.

School leader Yim Woo explains further how teachers perceive the burden of finding a workable pedagogy for explicit knowledge about language as falling mainly on the shoulders of participants, while authorities retain the right to judge the teachers' interpretation of the curriculum standard: —

Extract 66 [Yim Woo]

So this time I raise the question: can the Curriculum Standard be refined? The relevant Department, educational [university] faculty, experts or researchers, can they offer us the related analysis and a refined content of the Curriculum Standard? Then can you use your refined Standard to guide our teachers? Then we teachers will know that the way I've been understanding the Standard and applying it in my teaching, my way is correct... You [referring to people from above] want me to refine and what I refine to be correct.

The understanding of how to use explicit knowledge of English in teaching the language is also seen by class teacher Wun Ya as one of the attributes distinguishing more experienced teachers.

Extract 67 [Wun Ya]

I think experienced teachers' specialist knowledge might be stronger than those novel teachers... when I started working at the beginning, I felt every point is a key knowledge point. Every bit needs to be taught to children in details, but actually this is wrong. Right.

To sum up, when explicit subject knowledge is codified in official curriculum documents, it is regarded by the Shanghai teachers similarly to the explicit knowledge represented as published research findings. The knowledge is generally viewed as unusable in its codified form, and it needs the skills and professional knowledge of experienced practitioners to transform it into something that 'works' in a classroom situation.

5.3.2 Tacit situated knowledge

The participants in this study seem to be quite clear that knowledge specific to a particular context exists, and that this knowledge is generally highly valued by them.

The Shanghai participants' comments show that their notion of tacit knowledge is closely related to that of Polanyi (1966), who referred to it as personal knowledge.

Kiki Cheung talks of how her personal experience enables her to anticipate what the children she teaches will find difficult. The knowledge she derives from this experience is embodied in what she calls 'a presupposition' about the children's responses, that she can manage by adjusting her lesson preparation accordingly.

Extract 68 [Kiki Cheung]

Actually, so-called personal experience is what we use as a presupposition before teaching the class. Because I have experience, I would know some point would be a difficult point for children... If you don't have experience, you will not know

children's situation at all and you won't be able to make this presupposition.

For her, knowing the 'children's situation' is only possible through personal experience. This is why a teacher must be able to act individually in the class: —

Extract 69 [Kiki Cheung]

So actually individual action happens more. This kind of individual action is not that I have a selfish heart or whatever, but because... precisely speaking, your class needs you yourself to control and handle it. Other teachers won't understand or know the situation of your students.

The need for relative autonomy for the professional in the classroom is a strongly held view by the Shanghai participants, and it is based on a regard for knowledge of a specific situation as crucial. Even other colleagues who are experienced could not be expected to have the same knowledge, so clearly what is being referred to is something that in her judgement cannot be codified or standardized.

Kiki Cheung's colleague, Nam Chau, concurs, with the ability to make appropriate, situation-specific presuppositions being for her the distinguishing characteristic of an experienced teacher: —

Extract 70 [Nam Chau]

A new teacher, first of all, on her teaching method, she does not have much experience. Then she does not know what to presuppose about her students.

Similarly, for her it is this personal experience that means she knows how to identify the students' problems.

Extract 71 [Nam Chau]

I feel it's more or less easy now. But a new teacher does not know where students' problems are, that is, [for] a new teacher it is hard to get the important and difficult points.

The extent to which the Shanghai teachers think that this knowledge is specific to a particular context, and essential to knowing what teaching method to use, is expressed by class teacher Ming Shuk. Speaking of what she calls her ‘teaching design’, which is similar to the idea of a lesson plan though one that is intended to be used only in her own classroom context, she also sees an intrinsic connection between a teacher’s own personal experience, her understanding of the students’ learning situation, and appropriate pedagogy.

Extract 72 [Ming Shuk]

Then when talking about the teaching design, most of the time it is to do with teachers’ own experience and the understanding of students. Or more specifically, I know with students in my class what kind of method works for them.

Again, this knowledge of what works is specific to that context.

The English participants make a similar connection between experience and the knowledge they regard as being required in a ‘particular situation’. Diana explains: —

Extract 73 [Diana]

So all the time it’s ... I guess that’s the experience bit. Because that’s where you’re drawing on the experience [of] you know what works, you know what’s good practice, but you are applying it in the context of that particular situation.

The emphasis on what is seen as the uniqueness of a specific context is expressed by Elizabeth, who reflected on having led her school colleagues in an evaluation of an innovative practice developed by another school located in a different city but which is in other respects very similar in size and student characteristics.

Extract 74 [Elizabeth]

[S]taff were very enthused about what they saw there and... and quite inspired by some of their ideas. But very quickly, people began to realize that you can't just take one context and then just plant it into another context... You know, we could have come back and said OK... But, but we would think to ourselves, NO, actually that's not going to work here.

Grace is sure of the value of knowledge derived from personal experience, though exactly how it is valuable is not something that can be articulated in a systematic way, except at a general level: —

Extract 75 [Grace]

You... you... you start to understand the range of difficulties, abilities, potential problems, potential barriers, you've experienced things that have worked in the past with certain children... It just informs your whole way of working. I don't really know how to explain it.

This understanding that she has professional knowledge that is useful, but which nevertheless she cannot explain how, matches the conception of tacit knowledge, although neither Grace nor any other participant employs the term. Class teacher Rebecca's view that the situation takes priority in determining which kind of knowledge to apply is representative of the English participants. She was asked how she would deal with a challenge in school. Would she rely mainly on her teaching experience; would she seek advice from her colleagues; or would she go to a government document or other published source?

Extract 76 [Rebecca]

I think it depends on the situation.

She points out that this does not mean nothing is transferable, from one situation to another. But this transferability comes from experience, which provides the knowledge of how to deal with that new context.

Extract 77 [Rebecca]

It [experience] also stops you from panicking in a, in a new situation. You feel like you already know what you're doing because similar things have happened. And especially when there's, erm, a lot of people around you have got a lot of experience. Even if you've not done it yourself, speaking to them directly, I think is a lot better than just reading on paper what we should do and things like that.

In addition to emphasizing the collaborative and supportive community that exists in the school, her comment shows that even if the knowledge is derived from others' experience rather than her own, it is valued more than the explicit knowledge to be found 'on paper'.

In sum, despite the different cultures in which the Chinese and the English schools operate, and despite the differences within each school with respect to the extent of collaborative practice, all of the teachers in both settings express the view that it is situated knowledge provided by experience which is not just valued more than knowledge to be derived from other sources, but is also what a newly qualified teacher such as Victoria thinks she must acquire, though not by dismissing more explicit conceptual knowledge: —

Extract 78 [Victoria]

I think it's practice. Erm, a lot of practice. Erm, and I think, erm, being in the classroom means knowing the children, knowing how to adapt and in specific situations. And knowing your children like inside out. Because if you don't know the children, and then there's no way that you can gauge where, how they might react to certain situations, know what topics to produce. So I think it's just practice and understanding of the children and the concepts behind, erm, education.

Her insistence on 'knowing your children', in contrast to knowing about children and their learning development in more generalizable ways, is what all the participants

regard as justifying this valuation of situated knowledge, not as something which negates other forms of knowledge but as something without which those other forms cannot become useful.

5.3.3 Professional knowledge

One might expect the participants to refer to professional knowledge as an integration of explicit codified knowledge, derived mainly from research and policy documents, and tacit situated knowledge derived mainly from experiential learning. Such integration informing the development of an individual complex skill in pedagogical activity would appear to be expressed by one of the Shanghai teachers, Kiki Cheung, who compared teaching to driving: —

Extract 79 [Kiki cheung]

Actually as a teacher... it's like driving. You have to enter into the class on your own. Actually working as an individual is more frequent. Because I think a team is impossible to... first of all, the students' situation in each class is different. Other teachers won't be the same as you.

However common driving might be, it is the individual driver's capability in unique situations that she sees as the most important. The City Inspector, Po Choi, uses the same simile to describe the limitations of a novice teacher who has not yet developed sufficient professional knowledge: —

Extract 80 [Po Choi]

[O]ur teachers who went through the university do not have the level of pedagogical research. Just like one just comes out of the driving school and one is not stopped by the police, though actually the person does not know how to drive.

Although the interview question schedule used the term 'professional knowledge', in their responses, the Shanghai teachers referred to 'pedagogical knowledge' (literally,

jiao xue zhi shi, teaching and learning knowledge). That is, they emphasized knowledge that underpinned teaching skills, whereas the concept of professional knowledge in the U.K. setting tends to encompass other aspects of a practitioner's professional activity as well.

All but two of the Shanghai participants referred to pedagogical knowledge, as can be seen from the table below.

Table Four: Instances of interview responses coded at the node: *pedagogical knowledge*.

Participant Name	Number of instances
Kat Chu	0
Kiki Cheung	0
Ming Shuk	9
Nam Chau	9
Po Choi	6
Tze Shun	9
Wun Ya	4
Yim Woo	21

Note that Yim Woo made the most extensive number of references to this concept; this can be accounted for partly by the fact that her interview responses were generally longer than was the case with other participants.

The Shanghai participants who referred to pedagogical knowledge only did so in relation to individual updating for professional development through collaborative work. Class teacher Ming Shuk gives the fullest description of this kind of professional development: —

Extract 81 [Ming Shuk]

We are now studying theories; however, one needs to take into account that each teacher is very busy, so we use the way of one main person's presentation. It might be that this teacher has read an article on teaching and learning and felt grabbed by it, then she will share with the rest of the teachers her reflection about this article, through interaction and discussion. Next, we mainly observe other teachers' classes... In this whole process, we will also invite experts to give us instructions, for example, Kat Chu [the District Inspector].

The English participants also mentioned one or both of these aspects of practice when asked about their development of professional knowledge. Class teacher Rebecca's response is representative: —

Extract 82 [Rebecca]

The internet is huge. Obviously, you can access a lot of the teaching sites and all that, sort of, shared resources from other teachers... [and referring to her membership of a teaching team] because if you've got one person, who makes a decision, they've got a very different idea sometimes to others. If it's a team, you've got a group of people who can give you the pros and cons of things.

It is important to note that Rebecca regards her team colleagues as the most likely to provide a balanced view of a particular pedagogical approach. This importance of practice as a social, mutually supportive engagement with colleagues is a clear theme of participants' interview responses in both settings, though with a difference of emphasis regarding collaborative work. How this difference might affect what participants held strongly in common, that is, the need to scrutinize codified, explicit

research knowledge according to the principles and requirements of their specific teaching situation, is a question to which this presentation of interview findings must now turn.

5.4 Social Practice Focused On ‘what works’

5.4.1 Communities and networks

Of all aspects of their practice mentioned by participants in both settings, the most frequent reference was to what one might conceptualize as the collaborative culture in their school. Every one of the interviewees mentioned this at least once, and many made repeated references to it in response to different questions. Overall the sixteen interviewees in both settings made a total of 127 references to this aspect of practice. The next most frequent reference was to experience, with 80 references in total by all sixteen interviewees.

In the Shanghai school, English language subject-specialist team leader, Ming Shuk, explains how important the collaborative culture is for each individual teacher working with her class: —

Extract 83 [Ming Shuk]

We are now preparing for the class collectively, so the main teaching activities in class are aligned. Normally after class we will have inter-communication with teachers. We will continue to communicate and discuss in class preparation groups and in the teaching and research group meetings. If one teaching activity in my class does not fit in quite properly, after class, I will talk other teachers through the problems I encountered.

In this process of preparation, reflection and adjustment, it is the shared knowledge of the team that is used for negotiating aligned teaching activities. Ming Shuk also emphasizes the affective benefits and the feeling of belonging that comes with being in a fully functioning team.

Extract 84 [Ming Shuk]

I think the team atmosphere is good. Everyone is forging ahead. Moreover, I think every teacher would love to use their brains in their working situation. This is a wonderful feeling. How can I put it better? Everybody is endeavouring towards one direction, which is a fantastic team phenomenon. Everybody would love to learn and share.

Class teacher Nam Chau stresses the democratic aspects of the collaborative culture: —

Extract 85 [Nam Chau]

I think our whole team is quite equal. If there is a problem, we would inter-communicate on it. I am not a leader in the team.

And class teacher Tze Shun expresses the view that it is a culture, not merely a team, that comes together for particular tasks: —

Extract 86 [Tze Shun]

First of all, a team needs a culture. Our culture is to study together, share resources and improve together.

It is this culture that she thinks enables her ‘to adapt to changes’, though the tasks facing her are still seen as an individual responsibility with other team members providing support, rather than tasks being regarded as a matter of collective responsibility.

Extract 87 [Tze Shun]

The team is a support for me when I meet difficulties; not only in admin work or other matters requiring our attention. We need help from each other. Or, for example, on the aspect of class

preparation, we exchange experiences. It is highly possible that you will learn from others' experience.

When asked for his view of the Shanghai school's subject team, the City Inspector, Po Choi, points out that the move towards collaboration is part of a more general cultural re-orientation: —

Extract 88 [Po Choi]

Therefore, we derive a reference from the West called 'learning community'... Chinese headteachers, teaching leaders and teaching practitioners, and especially the Minister of Education has changed to say: [the aim is] the construction of a teachers' team.

The teachers had asked for his advice; he wrote in their School Journal, 'If you want to go far, then you go together.' He explains further, in responding to the question about his view of the school team: —

Extract 89 [Po Choi]

The inner thought is that hopefully everyone can participate in the team... it is the cultural expression of a team with backbone. So I answer your question, if we don't solve the construction and development of a teachers' team, that is, if we don't establish a professional learning team, then we cannot solve the problem of improving a school's overall standard. So this is an inevitable road. One 'backbone' teacher alone cannot solve the problem; she only solves it for ten to twenty students in her class.

Echoing the City Inspector's sentiments and her colleague Tze Shun's emphasis on mutual support, class teacher Yim Woo uses a vivid metaphor to express how the whole teaching team feels bound together, and recognizes the innovative rarity of the collaborative culture for the Shanghai setting: —

Extract 90 [Yim Woo]

Each one is moving forward; no one is not moving forward. If one teacher in our team doesn't progress well, we all help her out and guide her to develop... In the process, everyone is tightly clutching each other and rolling forward together; no one is giving up on

anyone in our team. My hope is that it can be sustained. Yes, because a team like this is hard to find anywhere else. Very precious indeed.

In the English setting, the aim of a collaborative culture is on a larger scale, extending not just to the whole school but to a network of schools, and is more formalized as a consequence. Headteacher Diana explains: —

Extract 91 [Diana]

Our academy trust has ‘collaborative’ in the name; our academy trust has been born and grown around the idea of a big team, working collectively together in the different schools, and that has transformed my teachers’ opinion of working with others.

She also makes clear that the aim of schools’ improvement was the driving force behind the move to collaboration, and as with the Shanghai teachers she sees this as involving the establishment of a culture.

Extract 92 [Diana]

And at the very, very heart of what we formed was the fact that collaboration was the way that we would improve not just our schools but the schools we look after as well... And we knew that to do that it’s about, it’s creating a culture.

As a demonstration of this, even experienced teacher Elizabeth declares that she does not regard any problems that arise as requiring an individual solution: ‘I would never try and solve a situation by myself’.

Like the Shanghai teachers, the English teachers see the benefits of being part of this culture, which enables them to engage in informal negotiation and interaction beyond the formal procedures. Class teacher Poppy values this interaction as a way of facilitating the self-articulation of tacit knowledge: —

Extract 93 [Poppy]

We went together as a planning team and just in little things. So we'll ring each on a weekend. And when you're really close and doing things on your own, you can't, sometimes you can't see the wood in the trees. But just speaking and verbalising it. And you are like, ah! you know the answer already. But you just needed to say it.

Class teacher Rebecca is aware that too much interaction could be non-productive, yet the opportunity to get 'different perspectives' on a problem outweighs that 'risk', as well as maintaining engagement and personal investment in the school community of practice.

Extract 94 [Rebecca]

I do think there's still the risk, the more people involved in something, the more you could argue out for a long time and it can become silly, but if you've got people who are trained in the area that you are looking at and there are people who care about the area you are looking at, and there's a few people, having them different perspectives just stops it from being one person decided with this, and if you all collaborated and worked together to do it, you're... you're more invested in it anyway.

Deputy headteacher Grace points to the collective responsibility for the children in the school, regardless of the class in which they are located.

Extract 95 [Grace]

[C]hildren are not seen as belonging to one specific teacher for that year. It's seen that every child, every adult in school is responsible for the education of every child and so if there's an issue with reading in year one, it's a collective wide-school issue; we put our heads together.

This contrasts with the Shanghai setting, where although there is a strong sense of belonging to the collaborative culture each teacher regards their own class of children as a matter of individual responsibility.

Class teacher Maria expresses the implication of this collaborative culture for achieving the aim of school improvement: the school community acts as evaluator and judge of the usefulness of all knowledge derived from research: —

Extract 96 [Maria]

You could do the research bit in isolation, but unless that's then, you know, given to everybody on the staff and talked about and tried out, then there's no [laughs] absolutely no point in doing the research.

Newly qualified teacher Victoria sums up the view expressed by all participants in both settings: —

Extract 97 [Victoria]

So having that team looking over, planning and such, and talking and discussing ideas and sharing ideas, it's been really really beneficial and useful this year. I found it really helpful.

In both settings, the notion of individual practitioners being on their own once the classroom door closes is a thing of the past.

In the Shanghai school, there is a strong sense of a collaborative culture. The relationship with other schools in the district seems, in contrast, to be more of a competitive one. This is formalised in such activities as the 'Rhino Cup', a competition to give awards to the best individual teachers chosen as representatives of their schools. This is perceived by teachers as another external demand, rather than as something necessarily helping their professional development. Class teacher Nam Chau expresses this perception when describing the teaching team's current priorities: —

Extract 98 [Nam Chau]

The research study in Grade One. The tentative instruction based on the curriculum standard was just over. Then the assessment of the 'Rhino cup'. Then the trip of the City Inspector coming to the school. Everything follows one after another closely. Then it's always changing again. Plans cannot keep up with changes.

The impetus to compete rather than collaborate with other schools does, however, come from within the school and it is driven by Yim Woo, the school's curriculum leader and Communist Party Secretary for the school. Although Yim Woo does not indicate this directly in her interview responses, highly experienced class teacher Kiki Cheung is in no doubt where the demands on the team come from. Expressing satisfaction with how the team is working, she adds, 'Of course our leader places too much expectation on us, I find it tiring [laughing]'. Asked to clarify whom she is referring to as the leader, she replies firmly, 'Yim Woo, Yim Woo'. When asked further why, in her view, Yim Woo has such high expectations, Kike Cheung replies: —

Extract 99 [Kiki Cheung]

Because this is the only thing in her heart. She wants our team to become one of the best in the District... To put it frankly, [with] the research we do, our test paper, our exercises, our class teaching, we are walking at the front in the District. For example, a teacher from another school borrowed from me a copy of teaching materials which was made 3 or 4 years ago. She's already stunned. Their Dean's Office said to them that this copy of materials is excellent, extremely good. Then I think in my heart, I did not even offer her what I am doing now.

There is both evident pride in the school being at the forefront, and an awareness of how having to maintain this high standard adds to competitive expectations and hence workload. The possible collaborative benefit of sharing with other schools is not mentioned by this participant or by any other of those in the Shanghai setting.

The situation with the English school is quite different. It is not just that there is an established network between their school and others, but there is collaboration that goes beyond the sharing of resources and practice. The network also functions as a research infrastructure.

School leader Elizabeth comments: —

Extract 100 [Elizabeth]

I know that there's quite a lot of ... evidence to suggest that really at teacher level, at classroom level that is the most effective way of researching and that it shouldn't be done top down and that within learning communities there should be lots of collaboration, and, and, and between, you know within schools, and between schools.

Note that Elizabeth argues against what she calls a 'top down' approach to research.

Here, the counteracting approach is seen as one that originates locally in a network of school 'learning communities'. The emphasis on networking communities of practice also changes the kind of responsibility teachers are expected to take in becoming more active in relation to published research, so that they are encouraged not to see themselves as passive recipients of those research findings. Deputy headteacher

Grace indicates what that changed responsibility entails: —

Extract 101 [Grace]

[We] are a teaching school. So we also have a responsibility for teaching other practitioners and so we do quite a lot active research ... because we are a bigger partnership of schools where we can research things for ourselves and create research.

This more active role for practitioners with respect to research will be considered further under the top-level conceptual theme of *agency with a sense of belonging*.

Here, it is important to note that the establishing of an inter-school community of

practice or network is regarded positively by participants in both settings, though the part played in this by administrative authorities is viewed differently. For the Shanghai school curriculum leader, Yim Woo, authorities above her level should be introducing infrastructural change because, in the Shanghai setting, practitioners such as herself feel that they can only manage the existing system, not change it.

Extract 102 [Yim Woo]

We can't do anything about it. You [the authorities] say you want... you want to learn from the West. You want to learn, then you... you should have a whole framework, from the superstructure. You have to have change. If you don't have change from above, what do you expect us to change from down here? It is impossible. Because your system doesn't change. We are not making systems; we are managing them. We have to deal with your system... So we are stuck.

Yim Woo's use of personal pronouns to express a 'we-you' contrast is indicative of the importance to the Shanghai teachers of the relations with authorities; only one teacher, Wun Ya, did not mention this. The English practitioners do not seem to regard such relations as being so important; only two class teachers make direct reference to them, and in both cases they are perceived as being positive.

Highly experienced Shanghai class teacher Kiki Cheung expresses a view representative of the teachers in this setting, when asked how she solves problems that arise in her practice: —

Extract 103 [Kiki Cheung]

I will seek help from colleagues or search online. Sometimes, now that we have a good relationship with the inspectors, we can ask them. If you are not having a good relationship with them, you will not ask either.

5.4.2 Recontextualization

The interviews with participants in both settings necessarily focused on aspects of their professional practice most relevant to the research questions. What analysis of the interview responses showed was that participants do not believe that they apply research knowledge passively to their teaching situation, but that they actively engage in a transformation of that knowledge according to the principles they regard as most important in that situation, namely, ‘what works’. The coding of interview data to an emergent category of ‘what works’ (see Table One above, under the theme of *making research meaningful*) then led to a conceptual category of *recontextualisation*. Why this functions as an explanatory concept for that data will be discussed in the following chapter. Here, the focus is on presenting the evidence for participants’ view of that transformation process.

The concept of recontextualization itself is mentioned explicitly by only two interview participants, both in the Shanghai setting, though all sixteen participants invoked the process by referring to metaphors. The metaphor most frequently used by seven of the eight English participants is ‘filtering’; one Shanghai participant used a different though similar metaphor, and the use of both metaphors will be considered after the explicit references to the concept are presented.

Firstly Po Choi, who is one of the Shanghai City Inspectors for Education, when asked if in his view teachers need to produce some codified knowledge, responded by referring to his own published research report on the principles underpinning the teaching of English language in Shanghai primary schools, where he compared it with the teaching of Chinese mother tongue language development: —

Extract 104 [Po Choi]

For example, relating to teaching in Shanghai, I raised the issue of mother tongue teaching practice, the basic principles for language, the recontextualisation [*wen ben zai gou*, literally 'text again structured'] of TCL [Topic-Content-Level], the consistency of the seven dumplings [principles] of classroom teaching. This actually produces the basic ways of explicit teaching.

Here the City Inspector is referring to the obligation on class teachers in their practice to take account of the principles established within the city's education authority, and then to produce explicit knowledge as an outcome of researching that practice. The recontextualization of those principles for specific teaching-learning situations involves the transformation of explicit knowledge, as represented on the one hand in context-independent statements about a textbook topic and teaching unit contents for an assumed level of ability, and on the other hand in stated pedagogic principles which Po Choi refers to metaphorically as 'the seven dumplings' as an evocative, memorable image. This transformation involves the integration of that explicit knowledge with the teachers' situation-specific knowledge about the actual lesson content and pupils' level of attainment. It is a matter of restructuring that knowledge to make it usable in a particular context, that is, recontextualizing it. In the Inspector's view, this then 'actually produces' new explicit knowledge about teaching.

Secondly Yim Woo, the Shanghai school curriculum leader, talks about interpreting the language knowledge embedded in curriculum standards so that it can be used in her teaching of Year Five pupils.

Extract 105 [Yim Woo]

You have to transform and move things around. I connected the old conceptual knowledge with the new knowledge at Year Five level.

I was doing **recontextualization** [*zheng he*, literally 'put things back together to make them meaningful'].

Here the process is seen as one of connecting two kinds of knowledge, but according to the actual needs of the Year Five pupils she is teaching. The comment about recontextualization is part of a narrative Yim Woo tells about being appointed to the present school at a time when those pupils were underachieving. The existing class teacher had not been able to bring about an improvement in attainment. Yim Woo was given this task. 'The headteacher said to me, could I solve this problem for him.'

Each of the participants who mention recontextualization are highly experienced, in inspector and leadership roles respectively. They are able to articulate in general terms, by means of this concept, the crucial active part played by class teachers in making research and codified knowledge meaningful and useful in the classroom. All of the other participants also demonstrated the importance for them of this process, though using metaphors or indirect ways of referring to it.

In the Shanghai setting it is Kat Chu, the District Inspector, who uses a metaphor to describe the recontextualization process. Asked if she thinks that teachers should use research in their practice, she replied, 'They should. In practice, we treat research as 'reject the dross, absorb the essence [*qu qi zao po, qu qi jing hua*]'.

This metaphor has both a straightforward meaning of sifting or filtering, and a deep cultural resonance that evokes both traditional Chinese writings and modern values regarding orientations towards Western culture. As such, it requires detailed discussion that will be provided in the next chapter, because these layers of cultural meaning bear directly on this study's research questions.

The other metaphor used by the six Shanghai class teachers is ‘refining’ [*xi hua*, literally ‘fine’ + ‘change of state’]. This has the straightforward meaning of clarifying or purifying by a subtle means. Note that the etymology of the English word used to translate *xi hua*, ‘refine’, uses the Latin prefix ‘re-’ also meaning ‘change of state’. Thus the sense is one of selective transformation. The references to ‘refining’ by the Shanghai participants are summarised in Table Five. Note that the two participants who did not use the metaphor, Po Choi and Kat Chu, are the two inspectors, whose responses have already been presented.

Table Five: Instances of interview responses coded at the node: *refining*.

Participant Name	Number of instances
Kat Chu	0
Kiki Cheung	1
Ming Shuk	2
Nam Chau	3
Po Choi	0
Tze Shun	4
Wun Ya	2
Yim Woo	8

Kiki Cheung uses the refining metaphor when talking about preparing learning resources and teaching materials that must align with both the curriculum standards and the pedagogical requirements set by the regional education authority.

Extract 106 [Kiki Cheung]

The DI [District Inspector] will not make her demands directly, however our team leader Yim Woo will provide us with a refined

detailed requirement based on the new pedagogical route the District Ministry of Education set out this semester.

Note that the refining will be done by the curriculum team leader, Kiki Cheung's teaching colleague Yim Woo, rather than by the District Inspector, Kat Chu, who is a state official. Teachers' growing responsibility for engaging with the recontextualization process will be discussed in the next chapter of this thesis.

When asked about her orientation to research findings, class teacher Ming Shuk says that even the findings emerging from other schools in the district needs a 'class-based refinement' before they can be used in her context.

Extract 107 [Ming Shuk]

I will be interested in this research finding if it suits the stage of primary level or it is related to English teaching... through learning other teachers' findings, we will make a school-based or even a class-based refinement. It might be a great help to my future teaching.

Note that 'we' refers to the subject-teaching team. Later in the interview, talking about the subject-teaching team's current activities, she explains the process in a little more detail. As well as referring to the team's collaborative work on learning theories, Ming Shuk emphasises the need for a two-way process with other schools, to overcome the limitations of only focusing on practice in her own school context and the specific needs of its students; yet those other schools' findings still need 'refining' if they are to be useful for her context: —

Extract 108 [Ming Shuk]

We are now studying theories; however, one needs to take into account that each teacher is very busy, so we use the way of one main person's presentation. It might be that this teacher has read an article on teaching and learning and felt grabbed by it, then she will share with the rest of the teachers her reflection about this article, through interaction and discussion. Next, we mainly observe other

teachers' classes. This might be limited because we are constrained by our school's teaching only, as with our school's students. So there is a need for us to look at other excellent examples of class teaching ... In the coming days, we will continue to have the thematic research activity. During the process we will keep refining if there is any insufficiency.

Class teacher Nam Chau uses the refining metaphor when referring to how she recontextualized explicit knowledge from a research paper on teaching a particular topic ('Birthdays in other countries') according to the learning needs of her own students: —

Extract 109 [Nam Chau]

I will rely on my own experience to do the lesson design ... I will carry out this particular knowledge topic step by step and ... I will mind which point of the process needs more refinement ... The final step in refining the material is because it is too difficult for students, because the amount of vocabulary is too huge ... You have to refine steps, then you will know which point is essential and important.

Class teacher Tze Shun uses the refining metaphor to refer to what a novice teacher needs to learn in becoming an experienced practitioner, particularly when engaging in research as part of the teaching team: —

Extract 110 [Tze Shun]

[I]n the process of practice, she [referring to a novice teacher] will be confused and she will need to learn the process of refining. That is to say, she only participates in the project, she is not the main researcher and she is only a participant.

She also uses it to refer to using pedagogical knowledge in learning design according to the specific class situation: —

Extract 111 [Tze Shun]

Then secondly, after deciding the level of the knowledge topic that shall be taught, the refinement of teaching activities should be decided according to the situation of each different class's

students ... if this process is not refined, the children in the class will not truly digest the knowledge properly.

In Tze Shun's view, the explicit knowledge contained in the Curriculum Standards is also too general to be implemented directly, so is in need of refining: —

Extract 112 [Tze Shun]

The Curriculum Standard is in general terms, it fears saying something wrong and it is not refined enough.

Wun Ya, who is both a teacher of English and is a specialist music teacher, uses the metaphor in referring to the teaching team's attempt to understand and then apply to their situation the findings from a research paper presented by a visiting academic on pedagogy, which had particular relevance to music: —

Extract 113 [Wun Ya]

Yes yes, he has to explain it bit by bit. This requires [teachers'] special learning. But this might be later on, because his research paper is being revised and also the follow-up content on implementing this will need to be written. Then it will still need to be refined by us.

The curriculum school leader Yim Woo uses the refining metaphor repeatedly to question why the responsibility for recontextualizing now falls so heavily on teachers, rather than other educational professionals. She gives the example of having to work with the Curriculum Standard for English Language: ——

Extract 114 [Yim Woo]

So this time I raise the question: can the Curriculum Standard be refined? The relevant department, educational faculty [in a university], experts or researchers, can they offer us the related analysis and a refined content of the Curriculum Standard? Then can you use your refined Standard to guide our teachers? Then we teachers will know that the way I've been understanding the Standard and applying it in my teaching, my way is correct. It's not that I [teacher] can... You [referring to people from above] want me to refine and what I refine to be correct...

They kept saying that they are going to refine the standard; kept saying, it's already being refined. However, the plan for refinement has never come out.

Yim Woo's challenging question may point to a change in the social practice of Shanghai teachers in relation to that of professionals in other sectors of the education system. This change may require accepting a responsibility that in the English case setting already appears to have been adopted.

The metaphor used by English participants is very similar to the one used by the Shanghai District Inspector and the refining metaphor used by the other Shanghai participants. This metaphor is one of filtering. All but one of the eight English participants mentioned a filtering metaphor during their interviews. The references to 'filtering' by the other English participants are summarised in Table Six.

Table Six: Instances of interview responses coded at the node: *filtering*.

Participant Name	Number of instances
Diana	6
Dora	3
Elizabeth	10
Grace	1
Maria	6
Poppy	0
Rebecca	2
Victoria	1

Diana, headteacher of a school in the same network as the other English participants, talked about 'filtering': —

Extract 115 [Diana]

I apply filters. So I have a very strong, erm, vision of the core principles of what makes schools work effectively, and what practice gives the best outcomes for the children. And so when I look at the likes of government documents, or I listen to colleagues, I am filtering which elements will work in this particular context.

Talking about a practice that was being regarded as successful in another school, she used the same metaphor: —

Extract 116 [Diana]

So the context was very different from this school. So the filters I applied were different to the filters I would apply for this school, because it wouldn't have worked. What we do here wouldn't have worked in the context of that school. Does that make sense?

She sees the ability to 'apply filters' as an essential characteristic of effective practitioners: —

Extract 117 [Diana]

It's having a... .. people who are well informed and have good subject knowledge can make, can make, erm, the right decisions and apply the filters for the contexts they have at the time.

This ability is seen as being learned from experience of different contexts and coming to know 'what works': —

Extract 118 [Diana]

I guess you've seen things before in different contexts. You know what works and what doesn't work. So you don't waste time really. Erm, and it makes easier to apply those filters.

Experienced class teacher Elizabeth also uses the filtering metaphor to explain what she regards as part of the role of an 'evidence champion': —

Extract 119 [Elizabeth]

[S]chools may well have an evidence champion now and they may be looking at sifting through materials, and then filtering what they think might work for their, for the particular organization they work in.

For Elizabeth, filtering is done according to the principle of ‘what works’, though in implementing changed practice she acknowledges that success is not guaranteed, and the principle is more about excluding or leaving behind what definitely will not work and is therefore not even worth trying: —

Extract 120 [Elizabeth]

So the really important part of the research model or in terms of actually seeing things that you really like and you want to try and you want to try out for yourselves in your own organisation. It's to do with filtering I think. Filtering what is going to work here.

She regards the ability to filter as something that can be taught through professional development in researching: —

Extract 121 [Elizabeth]

I think it is something taught generally, where with people who've been involved in, in research and development. I think it's to do with the fact that we can't, that people get very excited about something they see as working... And then realise actually you can't just bring something full, you can't just take, take a look at one situation and think, oh, that's going to work for us or read something about a piece of research and then just wholesaley think it's going to work. You've got to, I think the idea of the filtering is to take out what YOU think, or what the school thinks, is going to work for them.

The filtering may not just be the result of reflective evaluation by the teacher. She thinks that the children in her classes should also be consulted about how they thought they worked best, citing an example of when she considered working without desks: —

Extract 122 [Elizabeth]

[S]o what we, what we're saying is that I filtered **that** by thinking to myself and asking children how they best worked... So we filtered that little, that, that kind of idea of not having desks, 'cause that is, there is some research to do with desks, that desks are a very Victorian idea that children were sitting in, in lines, in, in, in sort of twos, because that's what they were prepare, preparing for almost into factories and mills... But what we did was, we looked at that idea and took out and filtered what we thought would work here.

Referring to the same process of considering whether to adopt a practice seen to be successful in other schools, class teacher Victoria also used the different metaphor of a magpie: —

Extract 123 [Victoria]

we... often go on to erm... trips to go see other schools and their practice, because, as you can't just focus on just what you are doing in one school. You have to see other practice and see what ideas you can, erm... like magpie from those situations.

Note the innovative linguistic use of 'magpie' as a verb, to emphasize the active nature of the process. The emphasis on active agency, as part of a community of practice and network of practitioners, is representative of all participants' views on using knowledge about teaching that from the participants' point of view has been produced elsewhere. It is this emphasis on being actively oriented towards explicit, codified knowledge that provides the fourth main theme that was derived from the data analysis, which this presentation of findings now considers.

5.5 Agency With A Sense of Belonging

Participants in both settings express a strong belief in their agency as the only way to ensure that the educational system is doing 'what is best for our children', as English teacher Elizabeth put it: —

Extract 124 [Elizabeth]

[W]e've been very used to, as an educational system, to have things done to us as opposed to having people have that sort of professionalism where we can decide for ourselves what is best for our children and our schools.

5.5.1 Autonomy in a Community of Practice (CoP)

This importance attached to practitioners being able to exercise their professional agency is closely allied to a sense of belonging to a community of practice, and to a perception of how much autonomy they have in pedagogical decision-making.

Although the Shanghai teachers have a sense of individual responsibility for what happens in their classroom, they do not express a sense of autonomy even though it appears to be accessible with respect to many classroom activities. They do have a strong sense of team membership, as was presented previously here under the theme of *social practice*.

Class teacher Kiki Cheung in the Shanghai school sees agency primarily as 'individual action'. She connects her professional responsibility to her class with her view that only the individual teacher can understand fully those students' 'situation'.

Extract 125 [Kiki Cheung]

So actually, individual action happens more. This kind of individual action is not that I have a selfish heart or whatever, but because... exactly speaking your class needs you yourself to control and handle it. Other teachers won't understand or know the situation of your students.

Accepting individual responsibility as the most important, as do all of the Shanghai participants, Yim Woo states that this responsibility does not entail the autonomy to

decide which research topic might be the most relevant for the individual teacher to engage in, nor how much time is appropriate to spend on it: —

Extract 126 [Yim Woo]

I think educational scientific research... educational scientific research could be part of teachers' job. But it should be carried out under teachers' willingness. By teachers' willingness I mean whatever the research topic or the amount of time to do it, teachers can have a say in it, however we don't have this self-autonomy right now.

Class teacher Nam Chau points out that the individual responsibility for a particular class does not exclude a full participation in the subject-specialist teaching team: —

Extract 127 [Nam Chau]

Because all the progress of teaching arrangements, basically are the same among teachers. Including the homework, we are unified, the same... If you say you work on your own, then it's about your own class situation.

From the perspective of team leaders and the leadership role, participation in teams is, for the District Inspector Kat Chu, the best way of promoting both a sense of belonging to a community of practice and of individual professional development: —

Extract 128 [Kat Chu]

Our [Inspector's] job is to be *Bo Le*. We need to discover good teachers and make them into role models for other teachers... we have to foster and train teachers and let their example radiate to other teachers. By this radiating effect is meant that we lead a team and then this team leads another team.

Note that to be *Bo Le* means one should be a good judge of hidden talents; it was the name of a legendary person in the state of Qin during the Spring and Autumn Period (8th to 5th centuries B.C.) who excelled in matching horses to riders. (There is a four-character idiom in common use among educated speakers of Mandarin Chinese: *Bo Le xiang ma*, Bo Le chooses a horse.) One might compare the District Inspector's

invocation of this to describe her sense of agency as a leader with the English idiom of ‘choosing horses for courses’, used to describe the process of a leader selecting a team for a specific project or situation.

The English practitioners’ sense of agency is associated with a sense of collective, rather than individual, autonomy. Team membership is the most important means by which the teachers in the English school express a sense of agency, and what accompanies this is a positive sense of belonging. Asked if she feels less important than more senior, experienced teachers, class teacher Poppy’s response is representative of the newly qualified English teachers: —

Extract 129 [Poppy]

Your opinion is always valid all, all the time... So no, I don't feel as less important. You are, you do feel, I'd never think they thought they was above me, my ideas weren't relevant. They've always got time. And they like to ask and they make you feel the part of the team. And that you are important. So that's good.

Her colleague Rebecca concurs: ‘I think we always know that we're part of a team’; as does her other colleague Victoria: —

Extract 130 [Victoria]

I, I feel very valued as a team member at the school. I have a huge, erm, support network here. Erm, and that's not even as a fully-fledged teacher so they treat me like I'm, I'm one of them already.

The question of being valued and of valuing is seen as an essential expression of agency. The evaluative role of team leaders includes helping to decide what is valued as well as who is valued, in the community of practice. The leader in the English school, Elizabeth, expresses this in terms of child-centredness and the desired educational outcomes for children: —

Extract 131 [Elizabeth]

We had a — yesterday, we were out of school, yesterday, the senior leadership team, and we [were] literally stripping back to, you know, what are our values, what are our beliefs, you know, what do we want our children to experience; what do we want the outcomes for our children to be.

Values and beliefs concern ethical aims and issues. For the English participants, these are mentioned in relation to restorative practice, and to being trusted.

Regarding the former, Elizabeth states it succinctly: —

Extract 132 [Elizabeth]

[T]he culture of this school and the values and beliefs in this school are underpinned by restorative values.

Talking about an example of how the school approached a conflict between children with emotional difficulties, class teacher Rebecca explains that these values inform practice.

Extract 133 [Rebecca]

[W]e used a lot of the restorative practice and a lot of the things that we use here anyway, to just make sure that they felt very safe and caring and we involved the emotional well-being officer, got the parents involved, we got other teachers who the child had had more experience with.

Her colleague Poppy also referred to the school's restorative values and practice in mentioning how she solved a problem with her class.

Extract 134 [Poppy]

I've got a very challenging class this year. Erm, a lot of children with very little social emotional, erm, skills. I found it really hard to regulate their emotions. So we do things restoratively.

The other ethical issue mentioned by the English participants is, as previously stated with respect to being trusted, an important element of both agency and autonomy.

Elizabeth regards trust as central to a 'professional approach': —

Extract 135 [Elizabeth]

So it's having that professional ... approach, so people, teachers are trusted, because really they haven't been in the past. That's not been there. That hasn't been in the culture that we've worked in at all.

The sense of being trusted is closely related to a sense of professional identity and the autonomy this entails: —

Extract 136 [Elizabeth]

So teachers had things pushed upon them really. So now the move is that teachers are more autonomous, that they are, they are a profession. I suppose like the medical profession, where they're actively engaged in what actually works, because they are the practitioners and they are the people really at the core of the school.

All participants indicate that in their view it is teachers' position as professionals at the forefront of practice which makes them uniquely placed to know 'what actually works' in a specific classroom situation. Elizabeth continues: —

Extract 137 [Elizabeth]

So I think it's the teachers being trusted as professionals, that they, that they are able to do this you know, that they are actually able to be involved in this, in this cycle of research and be able to implement [it]. So I think that's what I meant by being trusted that we, we are trusted as a profession, that we know **best** really, for what is, we know best for our children who we teach I think.

So her view is that because teachers are professionals at 'the core of the school' (Extract 136) they are, or at least should be, trusted more than anyone else to know what's best (this word was spoken with great emphasis, hence the use of bold font in the interview transcript) for 'our children'; that is, not necessarily for children in general, which might be the aim of academic researchers and policy-makers, but for these children in a particular classroom in this particular school. Elizabeth emphasizes that being involved in specific classroom situations is important for her

personally, in order to maintain her credibility as an experienced professional in the eyes of her colleagues: —

Extract 138 [Elizabeth]

I think I'm —it's important to be credible. You know, I've been back in the classroom for four years, you know, which I think has proved again that I can, I can — it's not just talking and talk, it's actually being able to walk as well and being able to show that you can do it, you know.

Four of the eight Shanghai participants indicated their focus on children's developmental needs as being their main ethical concern. An ethical commitment to meeting those needs is evident in their prioritising this in their practice.

Extract 139 [Tze Shun]

I think in the process of class preparation, children are the centre... think for lots of children their life experience is limited. You jam lots of knowledge into them, they will not find it interesting. Maybe if you slightly lowered down to get close to their life, they will be more receptive. Otherwise, their psychological and emotional gaps are huge.

Class teacher Wun Ya is as concerned ethically with a child's emotional state as with the level of attainment: —

Extract 140 [Wun Ya]

At this moment, I will praise him because he's having the spirit of questioning. At least it shows that he's listening to the class right? I will reward him with some chocolate or sweets. Make him feel good right? Then he will be happy. Actually this kind of student is lacking love. If a teacher treats him nicely, he will be very happy.

Her colleague Yim Woo relates her ethical commitment to her cultural orientation: —

Extract 141 [Yim Woo]

[W]e hope that what we pass on to our children is something meaningful, something that is emotion-based, something coming

from their life. In this process, they can experience the different culture between the West and the East.

For her, moral education takes priority: —

Extract 142 [Yim Woo]

What can I do? I would do moral education first. Moral education for Year Five children. Moral education.

The ethical commitment is in her view what makes pedagogy more than just a matter of technique and methods: —

Extract 143 [Yim Woo]

You also need to mind the methods, not just merely doing practice mechanically. Not like that. You have to treat them as human beings, communicating with them with spirit.

It is also, in her view, an affective matter for the teacher, if she is to have an effective dialogue with both her pupils and their parents: —

Extract 144 [Yim Woo]

You have to ‘place yourself in their position’, especially for older children. You must be sincere and change your heart with them. The same with parents; you have to open hearts to each other.

For class teacher Kiki Cheung, the moral imperative of ethical pedagogy can justifiably override the planned learning activity: —

Extract 145 [Kiki Cheung]

For example, like in my teaching class, Class 2 Grade 5, the class was about Dreams. I ask them a question: ‘What’s your dream?’ After I asked the question, all children were looking at me and nobody told me what they wanted to become. Maybe at this time if anybody saw my class, they would think I’m off the track. However, at this time, I did not... I did not go on as I planned. I stopped and I delivered them a moral lesson ...

Like Yim Woo, she mentioned the importance of how the situation was affecting her emotionally, and that she felt an ethical commitment to respond accordingly.

Extract 146 [Kiki Cheung]

When I was in the class, my heart was... I would guess with possibly half of the students, there is not a dream in their heart. I believe at least half of the class would like to say something, yet nobody was talking, I was astounded at it and froze; I stopped. Then I had a short struggle in my heart, that is, whether I should be keeping on with the lesson or have a talk with them. Then I decided at that moment to give moral guidance is more important than imparting subject knowledge. So I went on that other track of teaching. I require each of twenty children to express their dreams in English. I did not judge whether their dream is good or bad, I said as long as you have a dream, it is good.

The child focus as a paramount ethical value is also demonstrated by the English participants. Elizabeth contrasted her present school with one she had taught in previously, where she felt that the ethical commitment was not sufficiently in evidence.

Extract 147 [Elizabeth]

They weren't really interested enough in pupil progress. Other things were more important to them than actually what should have been which is the child is the most important thing in the school and how we can actually make better life chances for the pupil.

Grace emphasises that for her this ethical commitment is encompassed by the situated, tacit knowledge provided by experience: —

Extract 148 [Grace]

You... you... you start to understand the range of difficulties, abilities, potential problems, potential barriers, you've experienced things that have worked in the past with certain children. Not? It just informs your... whole way of working. I don't really know how to explain it.

And as Maria says, overall that experiential knowledge enables agency, because it enables her to judge what works, which is both an ethical judgement for knowing how 'to make things relevant to the children', and a practical judgement on which the practitioner can act: —

Extract 149 [Maria]

So you can draw on your experience to make things relevant to the children, prepare work, all those things. They all come into it, which if you didn't have that experience would... you could do it, but it would be so much harder, because you've not had that experience of knowing yes that works, no that doesn't work.

5.5.2 Self-initiating research

The sense of professional agency is strong for all participants in both settings, though in relation to becoming engaged in research there are subtle differences in perspective between the Shanghai participants and the English ones. Six of the eight Shanghai participants — all the class teachers — mention that research should be self-initiated, but that this is rarely possible in the present circumstances. What they do is required 'from above'. This is not, however, because they do not wish to learn more about pedagogy or children's development; nor is it because they do not wish to take the initiative in their own professional development. As class teacher Kiki Cheung put it: —

Extract 150 [Kiki Cheung]

It depends on individuals. How can I put it? Actually this is about teachers' own requirement for themselves. If you would like to learn, then possibly you will have the awareness to seek any opportunity to learn. If you wouldn't like to learn, even if others give you the chance, you wouldn't learn.

Class teacher Nam Chau, in response to the question whether research is expected or self-initiated, said, 'It is a task'. Asked the same question, class teacher Tze Shun said, 'More likely to be passively accepting'. Her relatively inexperienced colleague (her self-description) Wun Ya perceives that the autonomy to decide on one's own

research agenda is not available to a practitioner who is relatively new to teaching, so in her view there is an inequality of status: —

Extract 151 [Wun Ya]

When you have your own accumulation [of experience], then you raise your own questions. Then off you go and write articles, rather than you write articles required by above. I think it [the research agenda set from above] should not be this way.

As an experienced practitioner, Yim Woo perceives a responsibility rather than autonomy: —

Extract 152 [Yim Woo]

When I hear educational research or the topic, I immediately associate it with thinking that I am the one who has to do it! You are... the main body. You are the problem finder, also you are the one who needs to solve it. You are also the one who needs to summarise experience. You are ... everything.

In the English setting, deputy headteacher Grace has a clear idea as to whether research in her school is expected of practitioners, or is self-initiated: ‘mostly self-initiated here. But this is a very proactive school’. She continues: —

Extract 153 [Grace]

So we are responsible for going out, sourcing what it is we want to do ... instead of being passive, and waiting for your headteacher to say ‘you can go on this course’ and ‘you can go on that course’. The tables have turned...

Diana, the headteacher at another school in the academy trust, states the formal position: —

Extract 154 [Diana]

[T]hose at the top of the main pay scale have built into their appraisal that it’s expected that they undertake some form of research and actually use research that’s already out there to inform their practice.

Five of the six class teachers in the teaching school state that it is both self-initiated and expected. Class teacher Poppy regards both as aligned when the focus is on her daily teaching: —

Extract 155 [Poppy]

So it is, is expected at the moment that we research one thing, so rather than being self-initiated, mind you I, I would do things like, for example, I've got a Maths observation on Tuesday, so I, I have been researching deeper reasoning in Mathematical skills for my observation.

Her colleague Rebecca also sees both aligned as long as attention is paid to the immediate situation, 'what's going on around you': —

Extract 156 [Rebecca]

[It is] A mixture of both I think. I think it's... with this school, there's a lot of high challenge and high support, so they expect you to keep on top of current events and to know what's going on ... but if you want to improve yourself I think you have to look, look at what's going on around you.

In this respect, the Shanghai participants and the English ones have this fundamental view in common, that whether research engagement is expected as part of professional practice; whether that engagement is self-initiated because it is regarded by the practitioner as an ethically essential element of being a professional educator; or whether it is an aligned balance of both, if that research is concerned directly with solving practical problems in the teaching and learning situation, then it is relevant and useful. Shanghai City Inspector Po Choi summarises this shared view: —

Extract 157 [Po Choi]

The title of City Inspector has two layers of meaning, teaching and research. What is 'teaching'? Using research methods to solve the problem of teaching. A professional is called a teacher-researcher. Using research methods to solve the teaching problem. I am a

professional who uses research methods to solve teaching problems. That's it.

5.6 Conclusion

This chapter has presented the main findings from the qualitative data analysis of the interview audio recordings and transcripts. These findings have been grouped into four themes:

- making research meaningful
- valuing knowledges
- social practice focused on 'what works'
- agency with a sense of belonging

The evidence to support these thematic findings has been in the form of extracts from the interview data. There are three limitations on presenting the findings in this way. Firstly, the extracts have been taken from their immediate interview context, so where a participant has developed beyond the extract a point or a small narrative example, the sense of that development, which may indicate an aspect of the participant's meaning, could only be taken into account in brief comments accompanying that extract. Secondly, the point during an interview when a participant mentions a key point, that is, where it occurs in a sequence of utterances, cannot readily be presented in relation to that sequence. Interview timings or line numbering of transcripts can only give a formal indication, rather than a substantive one. For example, if a participant mentions something four minutes and 20 seconds into an interview, this timing may matter less than what is mentioned immediately before this and immediately afterwards. The extent to which a participant repeats a point may also be significant.

Both the development of participants' utterances and their sequence are influenced by the semi-structured interview schedule, and where it has been judged relevant to the meaning of the response the interview question has been indicated. Often, however, the participants' responses have not been constrained directly by that schedule, so the subtleties of meaning that might arise from these two aspects might be obscured.

The third limitation of this method of presenting findings according to the four emergent themes is that the most important aspects of the data analysis may be in the relations between the themes rather than in the conceptual relations within each one. Technically, the data coded to sub-nodes within one conceptual theme may have an important relation to data coded to sub-nodes within another theme, and unless extensive repetition with cross-references is used, such relations may also be obscured.

All three of these limitations will be considered in the following chapter, which will discuss these findings with respect to the research questions for this study.

Nevertheless, what can be stated here summarily is that the four themes do not receive equal, proportionate weighting in terms of occurrences in the data.

References to the meanings of research and to social practice focused on 'what works' are much more extensive than to the other two themes. What has been coded to the top-level conceptual category of *agency with a sense of belonging* rests on the least amount of explicit reference in the data. However, it should not be inferred from this that participants' sense of agency is relatively less important than their view of social practice or of making research meaningful. It is not so much a matter of the quantity of utterances and references, as of the qualitative significance of what

is stated. There is also the question of what is not said yet is presupposed in an utterance. The metaphors of refining, filtering and the articulation of an idea of recontextualization are relatively few in relation to emphases on ‘what works’, yet their significance for understanding what practitioners think they are actually doing with research and other forms of codified knowledge, and what their utterances presuppose yet do not explicitly articulate, is central. The argument for this will also be developed in the next chapter.

Finally, it is what the Shanghai City Inspector summarized in the last extract above (Extract 157) that has crucial implications for the discussion of findings and how they might be interpreted: ‘A professional is called a teacher-researcher’. What do the data suggest about how the participants perceive their professional identity and activities as a ‘teacher-researcher’? What does this actually mean to them, and what does that meaning entail for this study’s research questions? As the City Inspector concluded, ‘That’s it’.

Chapter Six: Discussion of Findings

6.1 The Connection Between the Themes derived from the Node Structure and the Relational Model

The main purpose of this chapter is to present a relational model of the process by which the participants in this study say they make use of research. The model will be shown to be derived from the findings of the data analysis presented in the previous chapter. Following the presentation of the model its explanatory significance will be discussed and a theoretical generalization will be proposed, whose scope and limitations will be considered in a concluding chapter. Before presenting the model, however, it is necessary to establish how it arises from the coding of the data. In accordance with the principles of qualitative data analysis, that coding resulted in a node structure. The categories of nodes are grouped together on the basis of common features. In this process of grouping the nodes, they become progressively more abstract as it moves from *in vivo* or descriptive codings to more analytical categories, so that at the top of the node structure are the conceptual nodes that were considered in the previous chapter as constituting themes used to organize the presentation of the data analysis findings.

It should not stop there, though. ‘Description of “thematic” codes and categories identified in the data provides a useful starting point in developing a report of findings... but effective analysis requires using data to build a ... theoretical model of what has been found’ (Bazeley, 2013:191).

In contrast to the node structure which is necessarily hierarchical in its grouping of categories, the relational model is a non-linear network of relationships. In this model, the proximity of one node to another represents an interaction between the two and may include a possible cause-and-effect relation, whereas in the node structure the proximity of one node to another represents a commonality of coded content or a conceptual contiguity between the two.

Bazeley (2013:180) provides a useful analogy for understanding the distinction between a node structure and a relational model. Many department stores selling women's clothing arrange the items in the retail space according to categories for the same kind of clothing. For example, all of the coats are displayed together but separately from all of the blouses or tops, which are displayed together, as are all the skirts, all the dresses, or all the jeans. Within each category there are variations according to style, size and colour; these variations are easily compared because all instances of the same category literally hang together. If a customer is only looking for one kind of item, that is easily found and the options available can be considered. However, if a customer wants to put a whole outfit together that is co-ordinated according to a particular criterion such as matching colours, then a salient item has to be selected from each clothing category and the resulting outfit will express a pattern that is based on the relationships between the different kinds of clothing, rather than on the similarity of items within one kind. By analogy with qualitative data items, 'putting together the outfit is more like making theoretical connections' (Bazeley, 2013:180). When department stores organize their retail displays according to designer labels, inviting customers to choose an outfit consisting entirely of one

brand, this by analogy is like offering different theoretical constructs according to specific contexts or circumstances.

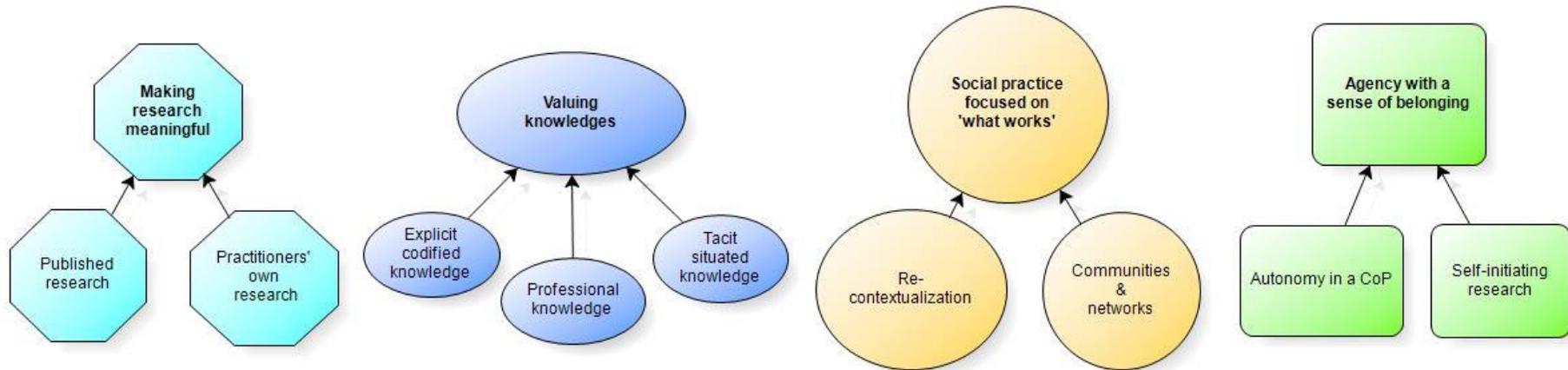
The point of Bazeley's analogy is that a relational model expressing a particular theoretical construct comprises ultimately the same data elements as the conceptual findings expressing the themes that emerge from the analysis of those elements. The connection between the thematic structure and the relational model will therefore be traceable via the nodes to which those data elements have been coded, though the relative importance of individual nodes in the relational model will depend on their significance for the model's proposed causal structure, rather than on their position in the node hierarchy.

As Lyn Richards points out, 'qualitative research is about theory discovery and theory exploration, not usually about testing a previously constructed theory' (Richards, 2009:123). This is why the case study undertaken was an exploratory one, and the theoretical construct presented in this chapter reflects that exploratory purpose. With this in mind, the themes emerging from the data analysis presented as findings in Chapter Five will now be reviewed for the significant relationships between their elements, which are represented in the analysis as coding categories. The discussion of those thematic findings in this chapter is necessarily focussed on **why** they are important in addressing this study's research questions. The concluding chapter of this study will consider possibilities for future research that might seek a more confirmatory purpose with respect to theoretical generalizations.

As a departure point for the ensuing discussion, the themes identified in the data analysis are summarised here in diagrammatic form, with the top two levels only of

the hierarchical node structure being displayed, in order to indicate briefly how that node structure is organized. Also given here is a key to the symbols used in all of this chapter's diagrams, to refer to all concept categories arising from the coding phase of the analysis that were identified as elements in the node structure. See diagram 1 below.

Diagram 1: Summary of Thematic Findings Derived from the Top Two Levels of the Conceptual Node Structure as presented in the Findings chapter



Key for all diagrams

	All nodes and sub-nodes for the conceptual category <i>Making research meaningful</i>
	All nodes and sub-nodes for the conceptual category <i>Valuing knowledges</i>
	All nodes and sub-nodes for the conceptual category <i>Social practice focused on 'what works'</i>
	All nodes and sub-nodes for the conceptual category <i>Agency with a sense of belonging</i>

6.2 Inferences from the thematic findings

6.2.1 Making Research Meaningful

This study's first research question is: what kinds of meanings and values do school teachers attribute to the use of educational research in relation to their own practice?

In both settings, respondents' interpretations of what research means depends on whether it is published research or something they do. With respect to published research, if the participants regard this as having any intrinsic meaning or if they value it for its own sake as producing knowledge and understanding of education as a dimension of social behaviour in all societies and cultures, then this view is not revealed in the data. What is evident throughout is that for the participants in both settings published research is not self-evidently meaningful. Rather, it has to be made meaningful by the activity of professional practitioners in a particular context. This activity is a complex process that is not fully articulated by participants in either setting. Where it is articulated, it is by means of metaphors. These metaphors will be discussed further section 6.2.3 of this chapter. For the present theme, it is important to note that participants resist the notion of published research being any kind of received wisdom that can without transformation be applied unproblematically in their own practice. Indeed, they regard this as an outdated view of research. In this outdated view, research is exclusively something undertaken elsewhere, whose relevance to their own context is decided by others, principally policy makers, and whose findings and implications for practice were in the past imposed on teachers regardless of the circumstances of their own school situation.

Contrary to this view, without exception the participants in this study regarded published research produced elsewhere other than their own organizational setting as just one kind of

research. This kind is definitely not something to be ignored or dismissed as having no value, but the view in both settings was that practitioners must engage in an active process of making that research meaningful, in order to render those research findings relevant to their own professional context. In that process, there is resistance to any suggestion that published research should be applied prescriptively without regard to anything specific to their own context, which teachers regard as having an important bearing on their children's learning.

With respect to research as something they do, which for the Shanghai participants may be an investigative activity that they are reluctant to call research even if a District or City Inspector refers to it as such, then the emphasis is on 'what works'. Their own research, including the research done by other members of their school network or done collaboratively between them, is already relevant and meaningful because they have decided to undertake it. No-one reported being asked to engage in research activity that did not arise out of current issues, initiatives or problems facing their school. Moreover, such research is seen as contributing to the process of making published research meaningful, because it necessarily takes into account those contextual and situational factors that research undertaken elsewhere could not acknowledge except in more general terms. It is not that participants refuse to regard their own school as being in any way typical or having many similarities with other schools. Rather, it is the individual characteristics of the school that are deemed to be paramount. It will be seen in discussion of the social practice thematic finding that the reason for this is ethical, in relation to the particular groups of children attending their school, as well as with respect to the development of their school community's status and their allegiance to both.

So, respondents' interpretations of what research means may differ according to whether they are referring to published research or what they themselves undertake. For the former, it can only be made meaningful by being subjected to a transformative process that is determined by the professional concerns of participants as active members of the school community. For the latter, it is deemed to be meaningful because, like the participants' social practice in which it is embedded, it is focussed from the beginning on 'what works'.

What connects both interpretations is that whether participants are finding out about published research and its possible relevance, or whether they refer to what they themselves are producing, everything has to be seen in terms of the immediate school context and the teaching-learning situation. Research from any source is valued for its potential importance in improving practice, even though only three interview respondents articulated in other than metaphorical terms how it is actually used for such improvement.

Research is seen by all participants in both settings as a necessary part of professional practice; this may be a similarity specific to these two settings because of the leading status in each case of the school involved. Other schools in each locality, Shanghai or northern England, which do not share this status should not be assumed to grant research activity the same role. Teacher research in both settings is also seen as a necessary part of professional development. Yet any professional knowledge produced, either by engaging in research projects, or through training or derived from studying research produced elsewhere, is seen by all as only being relevant if it can be related to what is important for their school or the network of schools to which their school belongs. Any sense of research being relevant to a wider community of practitioners, or to the teaching profession as a whole, is minimal. Anything not useful for improving their particular school or local context is perceived to be irrelevant to their concerns. This does not necessarily imply that such research is seen as

irrelevant for practitioners in other contexts; nor does it imply that such research is deemed to have no intrinsic value. It is merely that such research is set aside. This may be nothing more than a reasonable, pragmatic response in a professional situation where time is always at a premium. It is not possible to infer from the data whether or not this is the explanation, however plausible it may seem.

This further meaning of teacher research as having significant benefits in terms of professional development should also be seen not just as an individual matter but also as a way of developing the sense of belonging to the school community through participation, especially in the establishing of school policies or innovations in pedagogical practice. The response of Diana in the English setting (chapter 5: extract 29) presented in the previous chapter of this study, regarding the benefits of undertaking research into enabling the learning of white working class children, is salient in this respect. The aim of that research project is less about producing outcomes in the form of explicit knowledge that will contribute to a wider debate about ethnic and class differences in educational achievement, and more about finding ‘strategies that work well’ and providing ‘a gentle, structured stepping-stone’ for relatively inexperienced teaching colleagues to engage in ‘an action research project’, as well as helping to ‘develop that enquiring mind’.

The participatory, collaborative nature of teacher research is beneficial to the development and maintenance of a community of practice, and what works well will be subjected to the evaluative judgement of that community. This counts more for making research meaningful than the judgements of academically peer-reviewed research outcomes that may or may not be relevant to the challenges facing that community in its everyday practice and in its quest for a good evidence base grounded in the immediate learning-teaching situation.

When it comes to the expectation to engage in research that will be useful, for the English participants evidence is crucial; for the Shanghai participants, reflection on practice appears to be more central. For the English participants, it is largely a matter of ensuring that what they do is relevant to evidence-based practice as something they feel they should promote and develop. For the Shanghai participants, the possible benefits are more closely related to enhancing the transformation of individual professional experience into something more communicable, thus raising the school's reputation. While participants in both settings regard research as something useful in addressing practical problems within the school, and having important outcomes for the relative status of the school, the expectation to engage with and in research is for the U.K participants an essential aspect of building and maintaining a community of practice within the school. This collaborative culture will be discussed with respect to the theme of *social practice focused on 'what works'*. For the Shanghai participants, that expectation is more individualised, and perceived as generating tasks to be achieved as part of the individual's reflective practice.

One of those tasks for the Shanghai class teachers is that they are expected to choose their own research topic. One of these teachers, Yim Woo, says that this expectation leaves her terrified (see extract 39: Yim Woo; chapter 5 p22) rather than feeling empowered. She experiences it as a constraint rather than as an opportunity for exercising relative autonomy. Constraints on research are only mentioned explicitly by Shanghai participants. Yim Woo's response points to one possible reason for the English participants not explicitly referring to such constraints. The English teachers are not expected to choose their own individual research topics separately from collaborative discussion with colleagues and collective identification of relevant issues for the whole school. Paradoxically, this absence of individual discretion means the expectation to research is seen positively as an integral part of

the activities through which practitioners gain a sense of belonging to the school community, with research topics being regarded as arising through team decisions and consensus, and challenges in carrying out that research as being met collectively rather than as external demands falling on individual shoulders. This less individualistic approach in the expectation to research may itself account for the subsequent engagement being viewed more positively. Nevertheless, the Shanghai participants' perceptions of constraints clearly influence their understanding of what research means to them, and so in the analysis of the interview data wherever those perceptions were articulated they were coded as a separate sub-node of the higher level conceptual theme, *making research meaningful*. Accordingly, consideration will now turn to that sub-node data.

Shanghai teacher Kiki Cheung (Extract 43) uses the four-character idiom *ke juan za shui*, [literally, harsh extraction diverse taxes] which can be translated as 'exorbitant tax and levies', to describe the requirement to engage in research in her current professional situation. The use of this idiom indicates that the teacher regards the need to do research as an excessive external demand that takes time away from what she sees as most important.

Her colleague Nam Chau (extract 51), who like all of Kiki Cheung's teaching colleagues agrees with her view of it as an excessive external demand, regards any research undertaken in these circumstances as both inauthentic and losing its meaning. One might say that for the Shanghai participants the meaning of research is research that is meaningful. It is not likely to be meaningful for them if it is not directly relevant to their immediate teaching-learning situation, or if it is undertaken in that situation under the constraints set by regional government authorities.

It might be regarded as self-evident that the only meaningful educational research is that which shows ‘what works’, but it is itself important to understand how this phrase is used by participants. The first point to note is that the notion of ‘what works’ is always expressed in relation to what is seen to work in the immediate context of either their classroom situation or their school. Yet if one of the aims of educational research is to produce explicit, codified knowledge, then such research must necessarily try to establish outcomes that are valid across many contexts. This aim would appear to be in direct contradiction to what the practitioners regard as a meaningful aim, namely, producing knowledge that is specific to a particular teaching or school situation. This contrast between codified, context-independent knowledge and situated, context-dependent knowledge will be considered under the theme of *valuing knowledges*.

The second point to note is what might be excluded in making research meaningful by using ‘what works’ as the criterion. The English participants’ interview responses help in clarifying what is or is not implied here. As was stated in the previous chapter in presenting English teacher Dora’s comment that, for her, research means finding out ‘what works well’ (extract 32), it appears to be the case that the participants are not considering research that seeks to investigate educational issues at the level of society, for example, the relationship between social class and educational attainment. This focus, on making research meaningful by insisting that it relates to what works well in the immediate situation, may also be seen as being appropriate both to teachers’ needs and position in an education system, as well as highlighting what was seen to be contributing to the research problem this study addresses, namely that too much of published academic research does not meet those needs. However, one cannot be sure that this is indeed the participants’ view.

The possible reasons for interviewees not mentioning this kind of academic research into educational issues and relations operating at the level of the whole society have already been mentioned briefly. Such research will probably not be able to specify ‘what works’ in any given classroom. Yet if those societal relationships do exist, they will inevitably affect what happens in that classroom, if only in terms of setting limits to what it is possible to achieve there. It seems highly unlikely that experienced practitioners are unaware of those limits, even if they cannot be determined precisely. It may indeed be that the most likely interpretation is that interviewees in this study assume that awareness of these limits, these social conditions for what is possible, is not relevant to how they interpret the interview questions and respond to them; like the weather, such limiting conditions are merely present and beyond teachers’ control, so why should a teacher-interviewee think that it is worthwhile to mention them? Also, the situational effect of the interviews taking place in the middle of working days, in the school setting, should not be ignored. Just as situational constraints may be affecting how interviewees interpreted questions, so similar constraints may be affecting how a researcher might interpret their responses. One thing can, however, be inferred: all participants value knowledge of ‘what works’. With this in mind, it is necessary to consider the kinds of knowledge this might entail.

6.2.2 The Valuing of Knowledges

It is important to remember that in looking at what emerges from the data analysis with respect to the valuing of different kinds of knowledge, explicit knowledge systematically codified as a product of published research findings is not devalued or ignored by the participants. The thematic finding, that in both case settings a high value is placed on tacit knowledge derived principally from professional experience, does not mean that explicit

knowledge is overlooked. Both tacit and explicit knowledge are positively valued; indeed, both kinds of knowledge are continually being integrated into the professional knowledge that is necessary for practitioners to carry out daily the complex tasks facing them. This integration is evident in the agency that practitioners employ together in order to solve the many problems that arise, from children's misunderstandings of a curriculum topic (Shanghai participants' concern) to using restorative practice to confront bullying behaviour (English participants' concern). The issue is, rather, that of the orientation of practitioners towards different kinds of knowledge and how that might differ from the orientations adopted by academic researchers or policy makers.

There is nothing in the interview or observation data to suggest that what was derived from the conceptualisation and literature review - that the **valuing** of tacit experiential knowledge is crucial for how educational research is perceived, undertaken or applied – is wrong.

However, what does emerge from the data more clearly than from the literature is that tacit knowledge is not so much opposed to explicit knowledge as used to supply the criteria and principles by which explicit knowledge is given relevance and meaning. In this way, tacit experiential, situated knowledge should be understood as vital in the process of making published research meaningful for the participants, as well as in the process of producing their own explicit, codified knowledge applicable to their context.

Why is tacit knowledge is so vital? The answer appears to be that this kind of knowledge, or rather, because it is a process more than an entity, this kind of knowing, enables research knowledge to be situated in terms of school culture and practice. It has been established in considering the first thematic finding *making research meaningful* that the immediate teaching-learning situation is both the priority and the focus for professional practice. The respondents' view on what constitutes an experienced teacher, and what being experienced

means, shows that they regard becoming experienced as the prime means by which practitioners gain an understanding of that situation. Tacit knowledge means, for participants in both settings, situated knowledge. Note that by this is meant knowledge that is context-dependent though shared by all those working in that context. As discussed in the conceptualisation and literature review, the concept of tacit situated knowledge need not refer to something that cannot be articulated or discussed; on the contrary, participants' tacit situated knowledge is constantly being discussed, negotiated and evaluated whenever colleagues meet formally or informally to consider tasks or to work on them together. But this knowledge does not tend to exist in a systematic, codified form. Rather, it is knowledge as a way of comprehending the situation, so that this comprehension may be brought to bear on knowledge that does exist in an explicitly codified form, often literally as forms to be completed for all manner of reporting and documentary recording purposes.

An example of this occurs in one of the Shanghai teachers' team meetings (see Appendix 2) when the team are discussing how to respond to the District Inspector's directive for the team to develop an assessment scale, a task that was eventually to result in the team producing a form. After some collective expressions of frustration about how to interpret what the inspector wants, summed up by Kiki Cheung's comment, 'the way Kat Chu [the District Inspector] wants us to do it can kill us all', the experienced school leader Yim Woo proposes a way forward:

Her [the District Inspector's] suggestions are different from our original intention. But I feel that it does not matter. In the end, all roads lead to Rome. The key point is to motivate children's interest in learning English language... We can have games, interactions, group learning, role play, in the end, it still goes back to our text [the learning resource material]. Because the text is the soul. The text is only what the children are interested in. The text entails connotations of the culture.

In response, the team unanimously agreed. Yim Woo's utterance might appear to mean that the team should draw on the explicit knowledge contained in the teaching 'text' as the basis for solving the assessment task demanded by the District Inspector. However, when read in the context of the team meeting, her utterance can be regarded as an expression in that particular context, at that moment in the discussion, of the view that if their ways of solving tasks is different from the District Inspector's then they have to go back to the knowledge base that all of them are familiar with, in other words, using their situated knowledge to tackle that externally required task. In this instance, their learning resource material and the children's interest are the elements with which they are most familiar. Yim Woo is seeking to use the shared tacit knowledge and values of the team in order to increase their confidence in dealing with the external demand and create a basis for action.

Following on from this, it can be inferred that the valuing of tacit knowledge derived from practical experience is very high. Knowledge and understanding of the educational context and the teaching-learning situation is perceived as the most valuable. Experience is regarded as essential to acquiring this knowledge, not at the expense of codified knowledge but as the necessary complement and corrective to it. Being experienced legitimates one's agency as a professional practitioner, both as someone who has encountered and resolved many of the problems that arise again and again in daily practice and pedagogy, and as someone who can draw on tacit knowledge in order to make evaluative judgements about how to interpret and transform codified knowledge to make it usable in the immediate context. In other words, explicit codified knowledge is regarded as being something that has to be 'filtered' and judged according to experience, because professional knowledge derived from extensive experience of practice where tacit and explicit knowledge have continually to be integrated is often regarded as more 'useful' than explicit knowledge produced elsewhere.

Published research is usually aims to communicate explicit knowledge that is relatively context-independent, whereas the practitioners in this study regard context-dependent knowledge, explicit and tacit, as crucial. Teacher research is valued in part because it is a way of generating explicit knowledge from the immediate context in the form of evidence that justifies the practice adopted, or shows how the adopted practice needs to be adjusted.

6.2.3 Social Practice focused on ‘what works’

What emerges from the thematic findings regarding the meaning and use of research in relation to the valuing of different kinds of knowledge is that the process by which teachers use codified, explicit knowledge and turn it into professional knowledge, occasionally then converting some of that back into codified professional knowledge in the form of research project reports, curriculum documents or teaching and learning resources, is a process that participants regard as essential with respect to the teaching-learning situation. It is a process that the English participants mentioned in Chapter Five as ‘filtering’, though consideration of all participants’ interview data shows that the process is more complex than one of merely sifting through research publications and other codified knowledge in order to pick out what is relevant to their professional context. It is more complex because what teachers — and teacher-leaders — are doing as part of that process is both more active and transformative, taking account of status relationships, the ethos of the school, and how that ethos is influenced by wider cultural norms. This is the case in both settings, even though the status relationships in Shanghai are perceived to be much more hierarchical than are perceived to be the case in England.

If what lies behind the filtering metaphor is to be better understood as a key feature of the participants' social practice, it is necessary to consider the findings from the Shanghai case separately before returning to the use of that metaphor by the English participants. This is because there are some specific characteristics of that setting that evidently affect participants' interview responses and lead to some differences between the interview data from each setting.

The first point to note with respect to the Shanghai data is that the participants are throughout their interview responses concerned with their practice, and research is only viewed with respect to this emphasis. Within this emphasis there is a focus on the teaching-learning situation for each class of pupils, rather than a focus on the whole-school context. This is the first main difference from what is shown in the English interview data.

The Shanghai participants refer to collaboration with colleagues, but in terms that are more concerned with the giving and receiving of support, rather than in terms of a collaborative culture or of belonging to a group or a team. Teamwork is mentioned, and there is a strong teamwork ethos within which participants understand their specific roles. This sense of being part of a team does not extend to a sense of the school as a community. The perception of belonging to their particular school is there, but it is only mentioned in relation to competing with other similar schools in the region, or in relation to doing group presentations to other schools, often at city or regional training events. The notion of being part of a wider network of schools is not evidenced, except in the context of implementing what the District or City Inspectors require, where what the schools have in common is those same two authority figures.

The focus on the classroom as the pedagogical entity rather than a school focus is often made explicit with respect to curriculum planning and subject knowledge. It may be that, because Primary School teachers in Shanghai are appointed to subject-specialist posts rather than as generalist teachers expected to teach across the whole curriculum, those teachers conceive their professional identity in the first instance mainly as subject practitioners — in this case as teachers of English — instead of conceiving it mainly as specialists in development for a particular age range, as appears to be the case with the English teachers.

The second point to note is that the Shanghai participants tend to refer to research explicitly in relation to curriculum planning and pedagogical knowledge. This might be expected to follow from the class focus and the sense of professional identity as primarily being one of a subject-specialist. One participant uses a metaphor of ‘rejecting the dross, assimilating the essence’ to describe how she sees the process of taking explicit, codified knowledge and transforming it into the situated, more tacit knowledge that is needed for their specific classroom contexts. This metaphor comes from the process of wine-making, possibly from the distillation of red sorghum. It is significant as it is not just a casual way for an experienced practitioner to describe this key aspect of practice; it will be seen in the following section on recontextualization to express a complex view that expresses the cultural weight given to tacit, situated knowledge in Chinese society.

Recontextualization

This concept of recontextualization is at the heart of this thematic analysis, with respect to how the interview participants understand their use of research and codified knowledge from public sources as part of their professional practice. As was discussed in the conceptualisation

and literature review chapter (Chapter Two), it is a concept that was introduced into British educational research discourse by Bernstein, and was developed by Dowling following Bernstein, being defined by him as ‘the subordination of the practices of one activity to the principles of another’ (Dowling, 2009). The concept itself is mentioned directly by only two interview participants, both in the Shanghai setting, though all sixteen participants invoked the process by referring to metaphors or aspects of their practice that can be interpreted as recontextualization by Dowling’s definition. Both of these metaphors will be considered after the participants’ direct referencing of the concept is addressed.

City Inspector Po Choi (extract 102) and Yim Woo (extract 103) are the two Shanghai participants who mention recontextualization as a concept. In each case, the recontextualization is associated with a pedagogic discourse: in the case of Po Choi, the discursive element of ‘Topic-Content-Level’ is from a document written by him instructing subject-specialist teachers in schools how to interpret the regional government’s curriculum standard. In the case of Yim Woo, the discursive element is from a learning resource and her recontextualization of it could be described pedagogically as a constructivist move. In each case the practice involved using explicit codified knowledge and subordinating it to the principles of the classroom situation, specifically the learning needs of the children in that class. The City Inspector is requiring the class teachers to recontextualize a curriculum standard and the experienced teacher Yim Woo is recontextualizing textual material so that her pupils might learn it. Neither case is concerned with recontextualizing explicit knowledge derived directly from research; this shows that the recontextualization process is one that these experienced educational professionals are familiar with, as a strategy for transforming context-independent explicit knowledge, whatever the source. While this does not establish that all teachers can use this capability, it does indicate that it is not unique to using research

knowledge, which conforms to Bernstein's view, that 'pedagogic discourse is a recontextualizing principle' (Bernstein, 2000:33). To engage with pedagogic discourse is to invoke recontextualization. If this is so, it is perhaps not surprising that teachers subject research knowledge to this process. Precisely how this might fit in with other key aspects of teachers' social practice, as the participants in this study see it, forms the basis of the relational model developed later in this chapter.

In the Shanghai setting it is Kat Chu, the District Inspector, who uses a metaphor to describe the recontextualization process. Asked if she thinks teachers should use research in their practice, she replies:

They should. In practice, we treat research as 'reject the dross, absorb the essence [*qu qi zao po, qu qi jing hua*]'.

This is an often-used metaphor in Chinese that refers to a process of filtering, particularly as a figurative expression for learning something useful; it is closely related to the English metaphor of 'gems amongst dross' that derives from the process of using a sieve to separate precious mineral elements from worthless sand or mud. As stated in the previous chapter of this study, the metaphor in Chinese has important cultural connotations, which have a direct relevance to this study's research questions. For this reason, it should not just be regarded as a casual figurative expression. When used by one Chinese speaker to another, as was the case here, it has a meaning that cannot be encompassed by a straightforward translation. Those connotations indicate exactly what kind of meaning and value this practitioner, who occupies a pivotal role between school teachers and the state policy apparatus of education, attributes to the use of educational research. Hence, connotations deserve consideration in some detail. It is a crucial point in the argument developed here about the importance of the recontextualization process.

The Chinese metaphor is in common use as a sentiment expressing national values. In this sense it gained currency from the writings of Lu Xun (1881-1936), generally regarded in China and particularly during the revolutionary period of Mao Zedong as the most significant literary figure of the first half of the twentieth century. The eminent American critic Fredric Jameson nominated Lu Xun as ‘China’s greatest writer’ (Jameson, 1986:69); just as many of the phrases used by Shakespeare have passed into the common usage of English in Britain, so this metaphor was given a new life in everyday Chinese language by Lu Xun’s use.

Ultimately, though, it derives from the ancient writings of the Taoist philosopher Chuang Tzu (369-286 BC). In his story of *Duke Hwan and the Wheelwright*, the craftsman argues that the words of the ancient sages, from which the Duke seeks to learn, are just so much dross to be rejected. They cannot convey the kind of knowledge that he uses to make excellent wheels, because that knowledge cannot be put into words, but nevertheless it contains the essence of wheel-making. That is, the wheelwright argues for the superiority of tacit knowledge as the kind of knowledge that should be the most highly valued by the practitioners of a craft; even the explicit codified knowledge of the sages’ sayings cannot be as useful. The irony is of course that this wisdom is articulated in a story by someone who himself became an ancient sage. So the knowledge that is put into the words of the story should also be absorbed, not as mere words but as a subtle meaning to be valued according to the situation in which the story is told.

The District Inspector’s use of the phrase carries these cultural connotations of valuing highly the tacit knowledge used in practising a craft, in this instance the craft of teaching. However, when used by her to express how she thinks we should treat research, the phrase ‘absorb the essence’ [*qu qi jing hua*] implies that there is knowledge in this process that can be articulated. This echoes the City Inspector’s view that teachers’ professional knowledge can

be made explicit, while acknowledging and valuing the teachers' situation-specific tacit knowledge. The whole metaphor of 'reject the dross, absorb the essence' also alludes to its use by Mao Zedong in 1940 to refer to how the Chinese people should treat Western materials, knowledge and values. This policy approach was proposed by Mao in order to resist the 'wholesale Westernization' of China. In using this metaphor, the District Inspector is alluding to this historical meaning as a way of resisting the acceptance of published research knowledge unproblematically, because it is viewed by teaching practitioners as foreign material, in many instances literally foreign in that it is produced by Western academics. So the use of the metaphor has a considerable cultural heft to it.

Recontextualization is no mere technical matter; it involves cultural values and self-respect, as well as professional self-respect. This is central in considering how the Shanghai participants regard research and its relation to their practice. This may also be the case with the English participants, though the particular cultural orientation is different, so that similarity should not be assumed.

The metaphor used by the Shanghai teachers is that of refining (Extracts 106-114). This metaphor is similar to the filtering metaphor used by English participants, as well as being similar to that used by the Shanghai District Inspector in valuing tacit knowledge, though without that metaphor's significant cultural resonance. Unlike the context of the English setting, it is also used in referring to curriculum standards and the codified knowledge embedded in those standards (see Extracts 106, 112, 114). That is, it is seen as an essential process of recontextualizing that codified knowledge. But this recontextualization is undertaken in order to meet the District Inspector's requirements, rather than as part of an investigation into 'what works in this situation', which is where the filtering metaphor arose in the interviews with the English practitioners. In the Shanghai context, the teachers' use of

research is undertaken within a hierarchical arrangement, with the City and District Inspectors setting the authorities' requirements.

This does not mean that the Shanghai participants do not share with their English counterparts a focus on 'what works', but for those in Shanghai the focus is split between what will work in the classroom and what will work in satisfying the Inspectors' requirements. This bi-focal concern causes challenges for the Shanghai participants, particularly in relation to their own research activities, though as was seen in the example previously discussed of the teaching team's attempts to develop an assessment instrument, at crucial moments the shared tacit knowledge of the team about 'what works' tends to be valued more than the explicit knowledge expressed or invoked by the inspectors.

All three metaphors, of 'rejecting the dross, assimilating the essence', of 'refining' and of 'filtering' can now be considered not as indicating a process of picking and choosing from the explicit knowledge they must address, but of selectively transforming that knowledge. The metaphor is more comprehensible by analogy with distilling liquor, as with red sorghum, or in European terms with the making of filter coffee. By passing water through coffee grounds, that water is transformed into the caffeinated beverage and the coffee pot contains only liquid because the filter has prevented the coffee grounds from remaining in solution with the water. The end result is not one where some of the water has been 'selected' and some excluded; rather, the water has 'assimilated the essence' of the coffee, leaving behind the saturated grounds that can now be thrown away or 'rejected'. That is, the filtering is a transformative process, with the transformation taking place according to the characteristics of the coffee (or, in Chinese terms, the red sorghum). In the case of dealing with explicit knowledge, either from published research or from curriculum and other policy documents, the characteristics of the tacit, situated knowledge shared by the teaching practitioners is used

to ‘filter’ and hence transform that explicit knowledge into something usable in professional practice. The important point about this whole process is that those characteristics have not been constituted according to the principles by which the explicit, codified knowledge has been produced, any more than coffee grounds have been constituted by the chemical composition of water.

The other aspect of the Shanghai data which is strongly evidenced is that of the constraints on doing research alongside expectations of having at the same time to engage with it. In particular, the constraint of being asked to undertake only small research projects with a short time-scale, often of one semester, leads to such projects not being highly valued by participants, being seen instead as not ‘proper’ research. The Shanghai participants do not use the term ‘action research’ though this might be how one could describe such research projects (see Elliott & Tsai, 2008). Several of the Shanghai participants do not regard such projects as being particularly helpful. They carry them out because they are directed to do so. One participant used the metaphor of a pole and its shadow: ‘it’s easy to put up a pole and see its shadow’ (Extract 1) This is a common metaphor in Chinese; its connotation is usually negative, something close to the English phrase, ‘a quick fix’. It is associated with doing something superficial rather than substantive, with no time to go deeper and deal with causes rather than symptoms.

Another constraint that was mentioned by several participants is that of excessive workload. All teachers in both Shanghai and England mention time pressure, though several Shanghai practitioners go beyond this to refer to reporting and administration tasks as interfering unproductively with what they see as their core role of teaching children. They do not regard

it as supporting that role but rather as detracting from it. It should be noted that the references by Shanghai participants to workload as being a burden may have been mentioned more explicitly by them than was the case with the English participants because the interviewer-researcher had spent more time with them, over several months, than with the English teachers. It should also be noted that the interviewer-researcher was more of a stranger to the English participants, and from a different cultural background, whereas she was seen by the Shanghai teachers as being less of an outsider, and she shared the same cultural background.

The class focus, the perception of codified knowledge as being as much about policy as about general research findings, and the experience of being expected to do short-term research projects as part of hierarchical directives from the inspectors, in a context of excessive workload exacerbated by administrative and reporting demands, shape the feature that presents the most striking contrast between the Shanghai and the English participants. Initially, this contrast may be characterized as a predominance in the Shanghai setting of what might be called a caring discourse, whereas in the English setting what might be called a professional discourse predominates. This contrast is quite difficult to demonstrate conclusively from the evidence, as the two kinds of discourse are intermingled and not exclusive. It is also a matter of emphasis, in that both discourses are present in the interview data. Nevertheless, it does seem to account partly for the different ways in which the Shanghai participants responded to the same interview questions as the English participants. Because it involves the participants' sense of identity and agency, it is more appropriately considered in relation to the fourth thematic finding, to which the discussion now turns.

6.2.4 Agency with a sense of belonging

These findings suggest that professional identity is more important for understanding how teachers use research than issues of access and dissemination. The few existing studies of how teachers use research, considered in the conceptualisation and literature review chapter, have suggested that either the research is not relevant to school situations or that teachers experience difficulties in discovering what has been published. The teachers in this study, in both settings, indicate that this is a factor but it is not the most important one. For them, the sense of agency as experienced professionals is the most important. They will tend to reject or ignore any processes that they perceive to be undermining that sense of agency because this is central to their professional identity. However, their justification for rejecting or resisting those processes is not directly expressed in terms of professional identity. Instead, the justification is presented in terms of experience of a particular context, which provides them with a kind of knowledge that is not available to those outside of that context.

There are a number of problems with this justification. Firstly, it produces a perspective that is the opposite of the one adopted by policy makers. Secondly, because the teacher participants tend to value tacit, situated knowledge relatively more than explicit codified knowledge, they stay focused on immediate practical concerns, on 'what works'. They tend not to see themselves as creating knowledge that can be transferred across different contexts and situations, even though this study shows that these teachers in two very different cultures, Chinese and English, face similar issues. Thirdly, the greater value given to tacit knowledge means that the knowledge they create is likely to be less highly valued by policy makers and the academic research community. These problems lead to tensions that are not easily resolved.

Shanghai teachers see their identity primarily as specialist-subject teachers while English teachers articulate their sense of practitioner identity as belonging to the whole school and concerned with educating children in all aspects of their development. The Shanghai teachers, in responding to a researcher who also comes from Shanghai and who has worked in the Shanghai education system as a teacher, appear to assume that their cultural and professional values are understood and largely shared by that researcher. There was no sense in any of the interviews that the participants felt obliged to explain value statements, and their rationale for valuing one course of action over another was not articulated explicitly.

With respect to cultural values and differences between the two settings, there are wider questions here that are relevant. What does the cultural provenance of the education system, as experienced by the participants reconstituted daily by them in their professional activities, suggest are the most important values to be promoted in primary education? The teachers in each setting are concerned with both children's general development and with their progressive attainment of subject knowledge, but they have different emphases. Shanghai teachers' focus is on their class, so what they think of research is something that primarily can aid them in helping this particular group of children in this particular classroom, where the specific circumstances are seen to be most important.

The Shanghai participants frame their responses in terms of a caring discourse that foregrounds children's needs, their circumstances and family backgrounds, including their lack of opportunities to improve and develop as children (Extracts 139-146). In that discursive context, technique and pedagogical knowledge are not foregrounded; they are seen as enabling children's learning, but in a situation where there are many aspects that are hindering such learning. Instead, pedagogical techniques are almost secondary to furthering the children's moral and ethical development, which in turn is the ethical commitment made

by the teachers to over-ride if necessary the application of particular techniques where the two come into conflict, as they are often seen to do.

On the other hand, the English participants frame and articulate their responses mainly in terms of a professional discourse that emphasizes collaboration, networking, evidence-based practice and similar concepts (Extracts 91-97). The educational purpose remains one of enabling children's development, though this is seen as something to be achieved primarily by means of applying particular methods and through the appropriate organization and management of the learning environment, underpinned by a systematic incorporation of restorative practice. The prioritizing of evidence, of 'what works' as a means of justifying practice, shows a foregrounding of technique in professional practice. This discourse operates alongside an ethical commitment to children as children, and this commitment is no doubt one that the individual teachers renew on a daily basis. Yet however much it informs practice, it is not cited as something that might come into tension with that practice, or as something that could cause certain forms of practice to be set aside even if they are 'what works' with respect to attainment.

In considering this finding, there are two further important aspects that need to be taken into account. Firstly, it should not be inferred that Shanghai teachers have a greater commitment than English teachers to helping children to learn and develop. It may be that a similar caring discourse might have been used more by the English teachers, but they presupposed that a professional discourse was more appropriate to the interview situation, where the interviewer was also the researcher but not known to them, mostly, outside of the interview situation. It might also be the consequence of the English teachers being used to answering questions about their practice from 'outsiders', often *Ofsted* or other authority agents. In those instances, a professional discourse about evidence-based practice would be more appropriate

than would be the case with expressions of the affective dimension of their reflective practice. On the other hand, because the researcher-interviewer was more familiar to the Shanghai participants, it may be that as a consequence they were more inclined to use a caring discourse in their responses, regarding the interviewer as being more of an ‘insider’ — as being one of them, if only temporarily.

Secondly, the difference may point to cultural factors. There are different ways in which education has developed historically in the two cultures. These historical differences may have influenced how teachers’ identity may be constructed, regardless of subject specialism. Typically, for the teachers in Shanghai that identity is more likely to be seen as a caring role, where the main evaluative criterion is social and moral development. For the teachers in England that identity may be more likely to be seen in terms of being a ‘public servant’, where the maintenance of quality and standards are the prime evaluative criteria. In each case the kind of language and discourse used in the interviewees’ responses probably has more to do with what those respondents deemed to be appropriate to the interview situation rather than something that expresses a fundamental difference in approach to professional practice, though the difference in emphasis may well reflect the differences in historical and cultural circumstance. No doubt it would be a misinterpretation to infer that in the case of the Shanghai participants what has been described here as a caring discourse means that ethics matter more than quality; or conversely, that the English participants’ greater use of what has been described here as a professional discourse means that building and maintaining a collaborative learning community matters more than the moral concerns of individual teachers.

A different researcher-interviewee relationship might have produced a similar outcome in the English case. It could be that, for the English participants, the greater use of professional

discourse as the way of framing not just interview responses but also approaches to using research knowledge can provide a rationale for concentrating on transforming the tacit, situated knowledge of the classroom into more explicit knowledge about ‘what works’, at least for a range of similar contexts across a network of schools. Whereas in the case of the Shanghai participants, the rationale for using their tacit, situated knowledge as the basis for meeting the Inspectors’ requirements is grounded in their greater use of a caring discourse expressing an ethical child-centred concern. For these participants, that tacit knowledge is articulated within the frame of a caring discourse, where the emphasis on children’s attributes and needs is also seen in relation to particular classes being at a specific level of ability. Consequently, the notion of using codified research knowledge is regarded as a curriculum matter, which can be considered separately, bi-focally, from the priority of helping children’s moral development. Research knowledge about how that development might occur generally amongst children is not considered to be directly relevant to what is needed, in a situated sense, for helping particular children in a particular class.

What this data from the two sets of interviews may be showing is that when participants in each setting draw on a professional discourse, the prioritizing of evidence, of ‘what works’ as a means of justifying how explicit knowledge should be recontextualized, shows a foregrounding of professional, pedagogical knowledge in their social practice. This foregrounding informs their agency as those skilled in the craft of teaching. On the other hand, when participants in each setting draw on a caring discourse this foregrounds children’s needs, their circumstances and family backgrounds, their opportunities or rather lack of opportunities. In this discursive context, technique and pedagogical knowledge are not foregrounded; they are seen mainly as a means of enabling children’s learning, and it is the teachers’ ethically knowing what is best for the children in their care that informs their

agency as professionals who are part of a school community, and who have a responsibility towards all in that community.

There is a possible paradox here. The Shanghai teachers see themselves primarily as subject specialists given the task of trying to enable children to achieve specific standards by means of specific pedagogical techniques, yet have as a chief guiding aim the overall moral and personal development of the children they educate. In contrast, the English teachers see themselves primarily as educational specialists in the development of children within a specific age range, yet have as a chief guiding aim the continual improvement of pedagogical techniques to enable children's learning in relation to specific attainments. To use a metaphor not employed by any of the participants, one might see this apparent paradox as similar to looking at the same process through different ends of a telescope. The telescope is the same in each instance: teachers need to view children's development in terms of an ethical commitment, and view improving practice in terms of a technical commitment to effective pedagogy, and these two commitments must be integrated into a form of agency with a sense of belonging. But the way of looking at the problem — how can research be used while maintaining that professional, ethical agency? — offers a different perspective in each instance on the articulation of it. This difference in perspective might influence how they respond to questions about making research and other explicit codified knowledge useful and relevant, though the central role accorded to agency through a process of recontextualization is throughout substantively the same.

The interview coding produced twenty-three references in the interview data to 'curriculum planning'; all of these were from the Shanghai participants. They do see themselves as part of a team, but that team is there as a support for each individual practitioner's own class. They do not see the team as part of a whole school community taking forward research in the

whole school. They do regard themselves as participating in the school's activities as a school, though not with respect to research. When participants were asked to give examples of research they found useful, the examples British teachers gave are about restorative practice, school bullying or peer learning. It is primarily about how children behave at school. When Shanghai teachers responded to the question, the first thing they mentioned was curriculum planning and how they do things according to the implementation of 'curriculum standards'. Teachers in Shanghai indicated that the main use of research for them is in terms of the subject specialism and pedagogical subject knowledge. The English teachers indicated that the main use of research for them is in terms of how to get children to manage their behaviour and interactions with other children better. The Shanghai teachers' responses suggest that both published research and their own research activities are centred on pedagogy rather than their main concern with caring and children's moral development, while the English teachers' responses express an awareness that research can benefit that concern too, though they do so within the frame of a collaborative whole-school structure. This difference might be attributable to a possible paucity of research in Chinese about caring and development. The other possibility is that the English teachers have access to a better network and support infrastructure to enable them to work collaboratively on issues such as bullying that are more of a whole-school matter than something that can be resolved at the level of the individual classroom. This sense of belonging to a collaborative school community is strongly evidenced in the interview responses of the English participants. It should not be assumed that the English school is representative.

A focus on the importance of the school is evident for all participants. This strong allegiance to the school culture and identity influences significantly how they see their roles. By insisting on what they call the refining or filtering of official codified knowledge from

whatever external source, teachers experience and retain agency and empowerment. This has significance for their professional identity. In Shanghai, the City Inspector and the District Inspector can come into the school situation and when they do, then they have authority, but it is important for the school practitioners that they see themselves not merely as carrying out what the inspectors require, but that they are exercising their professional capability to translate those requirements into effective teaching. Similarly, in England, teachers are subject to inspections and quality standards, but actively form networks and communities of practice, so that together they can maintain professional control over how those standards are implemented. In this respect of establishing ways of claiming an identity through exercise of professional agency, the teachers in both the Shanghai and the English settings employ similar strategies for preserving their integrity as practitioners. As in Barnes' (2000) conception of agency, discussed in Chapter Two, section 2.6, both groups of teachers derive their sense of agency and empowerment from their responsibilities and trust mutually granted to each other by each other. None of them stated or implied that they could exercise agency thanks to their own skills and experience considered apart from the team or community of practice to which they belong. Their sense of agency is legitimated by their sense of belonging.

In summary, there are similarities between teachers in both settings in how they use research and official codified knowledge, even though they are working in different cultures. They are relating tacit knowledge to explicit knowledge in collaborative work, yet they adopt a perspective that values tacit knowledge more than explicit knowledge because this helps them to maintain their professional identities. There is, however, a difference between the teachers in each setting. The teachers in the English school see engaging in their own research as one of their professional roles and an aspect of their professional identity; the teachers in the

Shanghai school accept that they have a role in conducting their own research, yet not necessarily as an integral part of their professional identity, which depends more on their collaborative production and use of learning and teaching resources.

6.3 The Relational Model

This section presents the model of the key relations between the different elements that the data suggest constitute the process involved when practitioners make use of research knowledge and findings. Like all models, it is derived from the data yet is an abstraction from that data and the complex reality it might represent. The purpose of the abstraction is to identify the main explanatory factors interacting in the process described. Also, like all models, this one necessarily embodies a conceptual interpretation of the data, which itself incorporates the interpretive features that are a necessary part of all data collection procedures. The significant features of that conceptual interpretation have been discussed in the preceding sections of this chapter, according to the conceptual node structure derived from the qualitative analysis of the data. Here in this model, it is the relational structure of the conceptual interpretation that is presented. In developing this model, the following criteria have been borne in mind: —

1. The model should be sufficiently simple as to make the process and its constituent elements clear and comprehensible, yet not so simple as to occlude key relations where they do involve some complexity.
2. The elements of the model should as far as possible correspond to the concept categories derived from the data analysis, yet a concept category should not be included merely because it is present in the analytical node structure. It should not attempt to include

every concept category emerging from the data analysis, but only those significant for explaining the process according to criterion number 1.

3. The model should show the primary relations between the top-level concepts that identify the four thematic findings, yet this should not preclude specifying relations between concept categories in different themes at a lower level in the analytical node structure.
4. The model should be capable of diagrammatical representation as well as textual description, such that diagrams and text should complement each other rather than attempt to provide a self-sufficient description in each form of presentation.
5. The model should encompass the findings from both the Shanghai and English settings because the thematic findings show that there is evidence of a common approach by participants in each setting, while noting in the textual description any variations in approach within this commonality.
6. The textual description of the model should take into account that the data was collected as part of a multiple-case study where the Shanghai setting is the primary case and the English setting the secondary one, and that a full comparative case study giving equal weight of interpretation to each setting was neither intended nor carried out.
7. The model should not attempt to show distinctions between causal relations and associative relations, as the data analysis does not support any inferences about definite cause-and-effect, given that the data represent participants' perceptions rather than actual behaviour.
8. The model should aim to present possible explanatory factors contributing to the process, to facilitate a tentative theoretical generalisation, without implying that this shows causality or could be used for predictive purposes.
9. Where different steps in the process, or phases of it, can be identified the model should show them without implying that these steps or phases constitute a chronology.

The relational model that has been developed according to these criteria is presented below in the form of two diagrams (*Diagram number 2* and *Diagram number 3* in this chapter), each with an accompanying textual description. Following these, there will be a brief discussion of what the model might suggest, leading to the formulation of a tentative theoretical generalization in the following section of this chapter.

The first diagram (*Diagram 2*) and accompanying text present an overview of the model in terms of the top-level concept categories indicating the four thematic findings.

The second diagram (*Diagram 3*) and accompanying text present a more detailed view of the model showing as many elements as are necessary for indicating the main explanatory factors, but no more than these (see criteria numbers 2 and 8 above).

Note that both diagrams show the model derived from the analysis of data from both the Shanghai and English settings (see criterion number 6 above).

6.3.1 Overview of the main relationships in the recontextualization process

Diagram 2 presents an overview of the main relationships between the themes with recontextualization the only element of the ‘practice’ theme that is shown separately, owing to its importance for the research question.

Each shape in the diagram represents an element in the model. Each element refers to a concept category from the data analysis presented in the Findings chapter. In the diagram, the themes are distinguished by both colour and shape (see the key included with Diagram 1 at

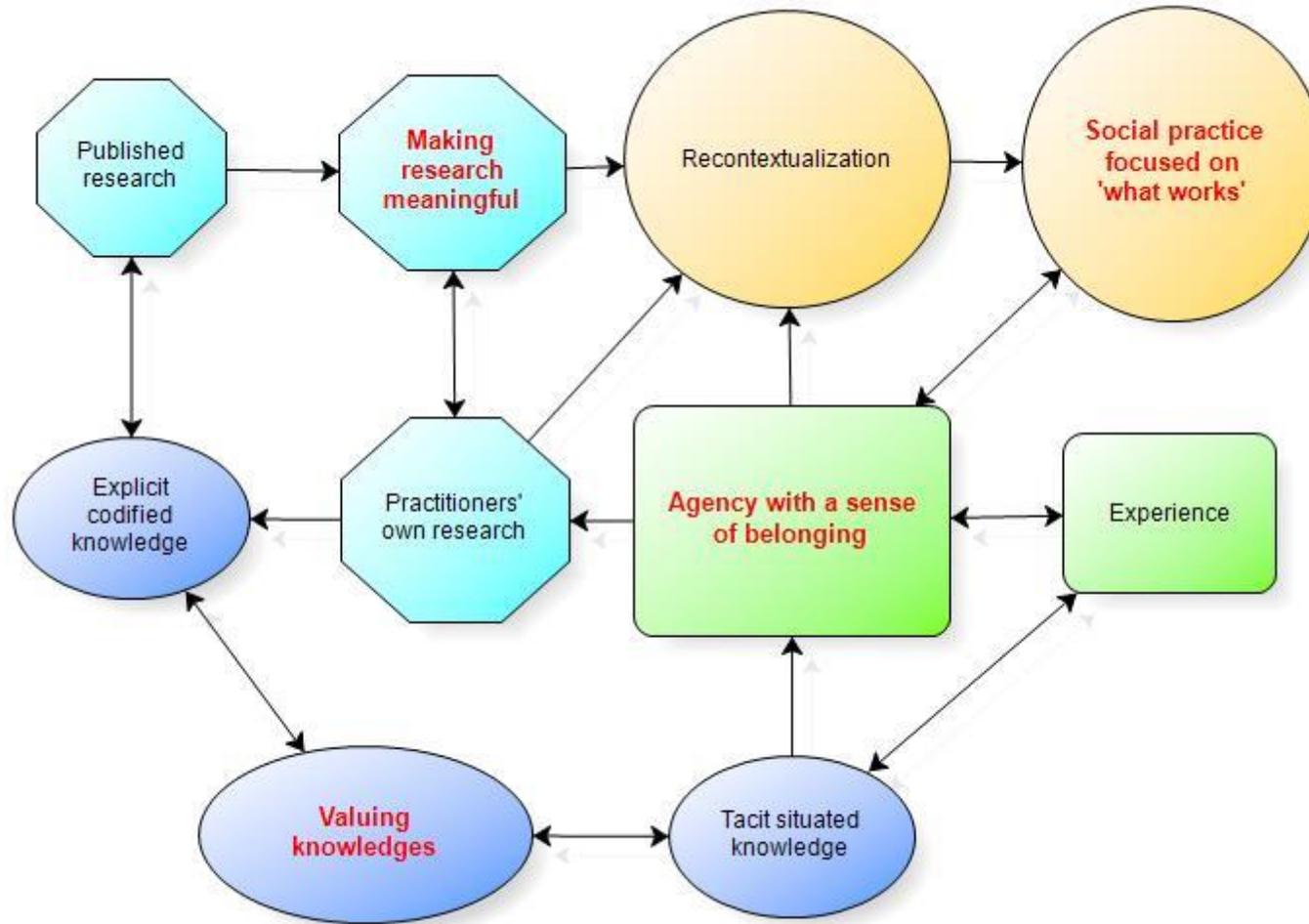
the start of this chapter). The four top-level conceptual nodes identifying each theme respectively display text in font colour red for clarity.

The relationships between elements are represented by arrows. A single-headed arrow represents a relation between two elements such that consideration of the first element ‘may lead to’ the second element. For example, at the top-left of the diagram the relation between the two elements should be read as “consideration of ‘Published research’ may lead to ‘Making research meaningful’”. A two-headed arrow represents a relation between two elements such that consideration of either the first element or the second element ‘may lead to’ the other one. For example, at the leftmost edge of the diagram there are two elements shown vertically one above the other; the relation between them should be read as “consideration of ‘Published research’ may lead to consideration of ‘Explicit codified knowledge’ AND consideration of ‘Explicit codified knowledge’ may lead to consideration of ‘Published research’”.

The elements and their relations are presented in three rows for clarity. Although the whole model is concerned with the factors contributing to the recontextualization process and so this overview diagram presents the recontextualization element on the top row, it should not be inferred that the elements shown in the second and third rows are of lesser importance in the model as a whole.

Diagram 2 is shown on the following page and a textual description is given after this diagram. In that description nouns and phrases in bold font refer to elements in the diagram.

Diagram 2: Overview of the main relationships in the recontextualization process



6.3.2 Overview of the relational path in the recontextualization process

In order to understand the prominent and significant part played by recontextualization in the findings of this research study, see *Diagram 2* that presents in summary form the key contributory elements and relations in this process. In this diagram the colour-coding shapes used to indicate the different themes arising from the data analysis is the same as for the previous diagram (*Diagram 1*, page 254).

The relational path through the model's elements can be seen in the overview by starting at the top-left of the diagram (*Diagram 2*) and moving broadly from left to right across the diagram. Starting at the top-left, **published research** may be considered by practitioners, and if so, this consideration is conducted according to the activities and principles that are described in the thematic finding *making research meaningful*. Consideration of the **explicit codified knowledge** embedded in published research contributes to these activities, which may in turn inform **practitioners' own research**. If the activity of making research meaningful is deemed successful by practitioners, this may lead to the **recontextualization** process itself, which may also be informed by their own research. This recontextualization process is undertaken by practitioners' exercise of their *agency* legitimated with *a sense of belonging* in a particular pedagogical context by integrating their **tacit situated knowledge** (*Diagram 2*, in the bottom row) of that context with the explicit knowledge derived from the published research made meaningful and usable, as well as from their own or colleagues' research.

That recontextualization process is undertaken with the aim of it leading to improving their professional *social practice focused on 'what works'*; this element is shown at the top-right of *Diagram 2* above. This enhanced, changed social practice is then validated through, and in

turn legitimates, practitioners' agency. That sense of legitimate action is also informed by what the practitioners refer to as their **experience**, the element shown on the right of *Diagram 2* in the second row. It is from the experience of practice in various contexts over time that practitioners may derive their **tacit situated knowledge**, which has been seen in turn to contribute to the recontextualization process through that legitimated agency. In this way there is a kind of feedback loop incorporated into the model, a feedback loop that may be referred to by practitioners as a commitment to a process of continuous improvement in practice.

Through their central, decision-making role in the recontextualization process practitioners maintain and develop their professional identity, which is established, negotiated and maintained through participation in this process. That professional identity involves ethical commitment to certain values. The value placed on different forms of knowledge and ways of knowing is indicated in the model by the activities and principles encompassed by the theme of *valuing knowledges*, shown in *Diagram 2* on the left of the third row. For the purposes of this model, the two most important forms of knowledge are explicit codified knowledge and tacit situated knowledge. The positioning of these forms as elements in *Diagram 2* (in the second and third rows respectively), expresses the part played in the model by these two elements. They contribute to a second kind of feedback loop in the model, by means of which consideration of both their tacit situated knowledge (of 'what works') and explicit codified knowledge may lead practitioners to a new phase of making published research meaningful, thereby returning the relational path through the model back to its starting point of published research, shown at the top-left of *Diagram 2*.

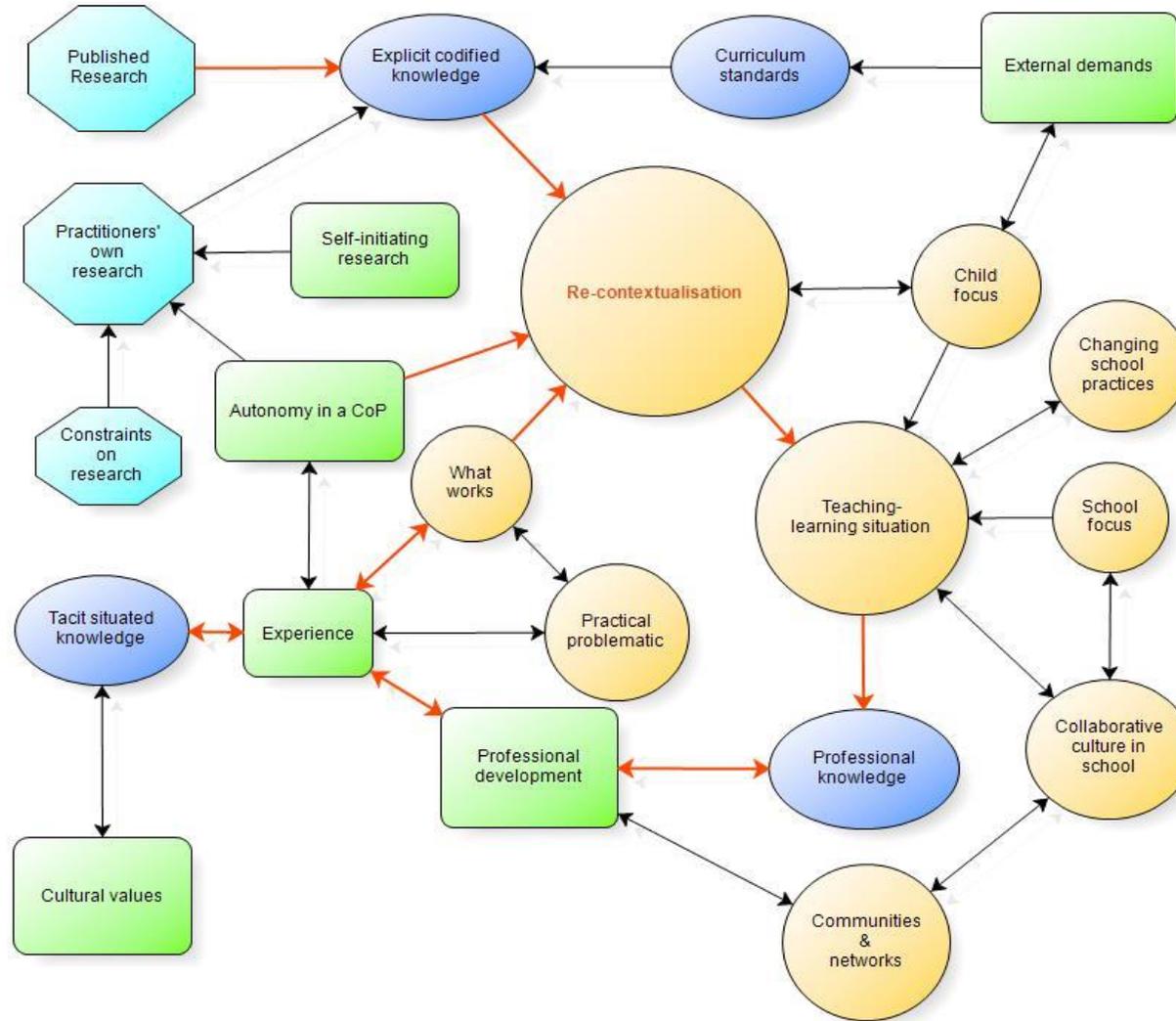
Diagram 3. The recontextualization process in detail view showing all of the key elements in the relational model.

This detailed diagrammatic representation of the model (*Diagram 3*) shows the elements in the relational model of the recontextualization process and the factors contributing to it, primarily for the participants in the Shanghai setting though including what the English participant data has in common with that process, a process that also informs their view of any research activity they might undertake. This more detailed view replaces the categorization of elements principally as themes with concept categories within those themes. The symbols adopted for elements in the model, their shape and colour, and the use of arrows, follow the same conventions as explained for *Diagram 1* and *Diagram 2*.

The process is best understood if the diagram is considered by moving broadly from the items shown in the top left to those in the bottom right. The most important relational paths are shown in the diagram with red arrows. The textual description is given after the diagram. As before, nouns and phrases in bold font in the description refer to elements in the diagram.

[see following page for *Diagram 3*]

Diagram 3: The relational model



6.3.3 Detailed view of the relational paths in the recontextualization process

The elements presented on the top row of *Diagram 3* express the following. The Shanghai school teachers distinguish between **published research** and policy documents, of which in the Shanghai context the most important are the documents specifying **curriculum standards** and educational priorities for the autonomous region and district; yet with respect to how they are regarded both are seen as expressions of **explicit codified knowledge** that in this form is regarded as unusable directly for their professional practice. Practitioners' own research is another significant source of explicit codified knowledge. This may or may not be part of a **self-initiating research** activity; in the Shanghai school the research activity may be imposed though the research topic may also be chosen by a participant, so a distinction should be made between what is imposed and what is self-initiated. The Shanghai participants also perceived there to be significant **constraints on research** that they undertake; this is represented by an element on the leftmost side of *Diagram 3*. The regional government's curriculum standards also tend to be regarded as one of many **external demands** on teachers and the whole process. These external demands also impinge on participants' **child focus** and the ethical commitment associated with that focus.

This representation of elements in the top row of *Diagram 3* and the child focus element is also applicable to the English school setting, with the difference that the English participants did not mention curriculum standards explicitly as one of the most important external demands on them. In the English setting practitioners' own research can be self-initiating, though topics and projects seem mostly to be decided through negotiation as part of the school's collaborative culture. The English

teachers did not mention explicitly any constraints on their research. This does not mean that these teachers are free to undertake any research they wish, but that any delimiting factors or circumstances were not perceived as constraints, presumably because they formed part of that same collaborative, negotiable culture of practice.

By moving broadly from left to right down and across *Diagram 3* below the top row, the representation of elements and relations can be summarised as follows. The teachers regard as essential that, to be rendered useful, the various forms of explicit codified knowledge have to be subjected to the transformative activities of **recontextualization** according to their understanding of, and in relation to, the **teaching-learning situation** that they face daily in their practice. This activity of recontextualization, articulated by most of the teachers in each setting by metaphors of refining or filtering respectively, is something that in their view is a key feature of their professional agency. It is a central element of their professional identity, justifying their view of themselves as qualitatively different from an expert who merely transmits subject knowledge. Their sense of agency, which they seek to protect against any perceived encroachments on it by authorities, is derived from their collaborative **experience of what works** in the classroom and from their **child focus** in supporting each other to meet children's needs. For all of them, what distinguishes an experienced teacher from a novice is the ability to use their experience to recontextualize codified knowledge pedagogically. An experienced teacher is seen as exercising her **relative autonomy in a community of practice** in order to engage with those **recontextualization** activities. These activities are distinct from the daily problem-solving aspects of professional practice in the classroom, which often require immediate, interim actions that be conceptualised as

forms of what Tripp called the **practical problematic** (see the conceptualisation and literature review chapter of this thesis for a discussion of this concept). Experience of this kind of problem-solving feeds into participants' sense of **what works**, so although it is distinct from the teachers' exercise of their agency in recontextualization activities, it also influences participants' judgements about what those activities might entail. Note that this part of the model applies to the data analysed from both the Shanghai and the English settings.

The elements on the lower left side of *Diagram 3* represent the factors contributing to participants' perceptions of what constitutes relevant practitioner **experience**. That experience provides the **tacit situated knowledge** that practitioners value highly in enabling them to judge **what works**. Both the valuing of this kind of knowledge and what it might consist of, as articulated in the figurative language of metaphors and idioms used by participants in both settings, are influenced by the **cultural values** held to be important by them, in the culture of their school, the local network of schools, and in the wider social context. Although there are evident differences in some of those values, the elements and their relations in this part of the model applies to the data analysed from both settings. The other main element contributing to relevant practitioner experience is that of **professional development**, important for the participants in both the Shanghai and English settings.

The lower right side of *Diagram 3* shows elements and relations between them contributing to participants' understanding of the **teaching-learning situation**. In addition to their **child focus**, that understanding is also informed by their **school focus**, where what is judged to be of relevance or potential relevance is highly influenced by the concerns and interests of the school community of which they are

members. In both the Shanghai and the English schools, participants explicitly acknowledge and approve of their participation of the **collaborative culture in school**, though how that culture is manifested is different in each setting. That difference mainly concerns variations in how their membership of a team, and the role of the team in their social practice, are regarded. (This has not been included in the representation of the model in *Diagram 3* as it has been considered as a level of detail not presented or discussed extensively, in this and the preceding chapter, because of its relatively minor importance for the model as a whole.) The collaborative culture in school is related in each setting to the characteristics of the **communities and networks** in which the school participates. For the class teachers in each setting these affect their practice principally through **professional development** activities.

The intended outcome of **recontextualization** activities is to subordinate explicit knowledge to the principles judged to be appropriate to a particular **teaching-learning situation** in order to improve children's learning and to meeting their needs in that situation. To the extent that the practitioners themselves learn more about their practice, the process leads to enhanced **professional knowledge**, which in turn informs their **professional development** and furthers their **experience**. This inner feedback loop is represented in the lower part of *Diagram 3*. It corresponds to the feedback loops outlined in *Diagram 2* for the continuous improvement of practice and the impetus for new practitioner research and the accessing of published research. These aspects of the model also apply to the data analysis from both settings.

6.3.4 Further aspects of the relational model

The class teachers in each setting find it difficult to articulate exactly what they have learned from their experience of practice in order to exercise their professional sense of agency. In this difficulty one can discern analytically an essential characteristic of what Nonaka and Takeuchi (1995), following Polanyi (1966/2009), called **tacit knowledge**. Practitioners in both Shanghai and England value tacit knowledge at least as highly, if not more highly, than codified knowledge, in that it forms the inexpressible ingredient of what they have learned from experience that enables them to take account of specific teaching-learning situations. However, in Shanghai as in China generally, this valuing of tacit knowledge is further legitimated by wider **cultural values**. The tacit knowledge embedded in ‘four-character idioms’ but not made explicit in them is one important example of this cultural valuing of what may not be fully expressed or articulated systematically. It is what in their view enables the Shanghai teachers to solve practical problems faced in their daily practice, though drawing exclusively on this kind of knowledge can mean that their pedagogic approach is limited by what in an English context has been conceptualized as the **practical problematic**. The Shanghai teachers recognize this, even though they do not invoke that concept. They understand and accept the need for **professional development**, but primarily in order to learn through teacher networks or what might also be described as communities of practice (**CoPs**) rather than directly from published research.

In both settings, the teachers’ sense of agency in recontextualizing codified knowledge in curricular and other activities is justified in terms of a **child focus**, in particular through an overriding concern with children’s moral education and in

meeting their needs, which frequently involves establishing and maintaining good relations with parents. To this extent they see that there are **external demands** on their recontextualizing actions, where both external authorities (charged with monitoring and inspecting the school's implementation of curriculum standards) and other agents such as parents have to be taken into account. There may be an underlying tension here that is partly expressed by the Shanghai curriculum leader Yim Woo (extract 114), when she states that the responsibility for 'refining' the curriculum standard falls on her and her teaching team. She asks, why cannot 'experts or researchers' do the refining? 'They kept saying that they are going to refine the standard; kept saying, it's already being refined. However, the plan for refinement has never come out.'

It was argued in section 6.2.3 of this chapter that the Shanghai teachers use of the refining metaphor refers to recontextualization activities. Yim Woo is questioning who is responsible for doing this, and challenging the claim that external authorities, whether in the regional education department or in universities, have already done this refining. Bernstein (2000), in his discussion of the concept of recontextualization, identified what he called two fields in which he thought the recontextualizing field operates. (This has been considered in Chapter Two, section 2.7, so it will be only briefly mentioned again here, for ease of reference.) There is what he called the '*official recontextualizing field (ORF)* created by the state and its selected agents' and the '*pedagogic recontextualizing field (PRF)*' which consists of 'pedagogues' in the various sectors of education including 'schools and colleges' (Bernstein, 2000:33). What Bernstein, writing in the U.K. context, saw as a tension and struggle for control of pedagogic discourse between the ORF and the

PRF, seems in the Shanghai context also to be a tension within the PRF. If school practitioners in the English setting are positively embracing a greater responsibility for recontextualizing activities, particularly through networks that include ‘experts and researchers’ from higher education, not least because it helps to assert and maintain a professional identity for teachers as being more than merely pedagogic technicians, in the Shanghai setting this is also asserted as an important responsibility for that reason, yet is also perceived as an external demand made without sufficient support or guidance (see also extract 106, Kiki Cheung).

In terms of Bernstein’s conception, a shift in the relations and responsibilities within the PRF has also altered the relationship of the PRF to the ORF. It was argued in Chapter Two that Bernstein perhaps gave insufficient consideration to the different agents and structures within the PRF, by arguing that this field of educational action was being reduced by the state via the ORF, in order to weaken that PRF. The evidence from this research study is that in the English setting agents within the PRF are using recontextualization as a way of maintaining the strength of that field, against the attempts by the ORF to reduce their relative autonomy. In the Shanghai setting, the same process may be under way, though the relative weakness of the communities of practice and of school networks mean that it is perceived as more of a difficulty, as well as an uncertainty about the boundaries between the ORF and the PRF. These boundaries are more porous in the Shanghai context anyway; note that the curriculum leader, Yim Woo, also has a political role within the school as a local Communist Party secretary.

For these reasons the recontextualization process, especially in the Shanghai setting, is the site of struggle over pedagogic knowledge and discourse, though contrary to

Bernstein's view this struggle does not correspond to an opposition between the agents of the state (the ORF) and educators (the PRF). In this respect, the City and District Inspectors, Po Choi and Kat Chu, seem to occupy roles that are ambivalent in that their positions and responsibilities straddle the apparent boundaries between the ORF and the PRF. This ambivalence may also partly characterize Yim Woo's position as school curriculum leader, though also involving an official political dimension.

When this recontextualization process is applied in specific teaching-learning situations, then in the view of the teachers this can lead to two positive outcomes: **changed practice** (for the better) and enhanced **professional knowledge**, where this form of knowledge is inferred to be an experiential, pedagogical integration of both tacit and explicit knowledge.

When this professional knowledge is shared, it is done so primarily between colleagues in the same school. When in the Shanghai setting it is shared with practitioners in other schools, this is seen as being primarily on behalf of the school and its prized status for educational excellence, rather than as an opportunity for collaboration. Hence this **school focus** is expressed in terms different from a corresponding school focus evident in the English teachers' interview responses.

This school focus as a matter of competition rather than cooperation with other schools, though a question of emphasis rather being exclusively or even explicitly a sense of rivalry, conditions how the Shanghai teachers regard any research activity they undertake. Such activity is always in relation to the teaching-learning situation that is at the heart of their social practice. It is seen as being necessary and useful

only if it leads to enhanced professional knowledge, yet it is also regarded as having to be undertaken in order to maintain their school's status with respect to other schools. Consequently, the need to research is also perceived as an external demand, and one that is difficult to meet because of the time **constraints** placed on the classroom or school-level research project. Indeed, such activity is seen as producing additional time constraints on what are perceived as the more important immediate tasks to be met in the teaching-learning situation. The teachers' research activities are regarded by them as important for the school's standing, but are seen as being more marginal with respect to the needs of that teaching-learning situation and to their own professional identity. This is partly due to teachers' conception of research as being something that both requires more time than they have available, and as something that requires a set of skills they do not readily possess. In this way, their own research activity has only an indirect relation to their sense of professional development, though it is not perceived as having no relation to it.

To summarise, curriculum standards and published research are both forms of explicit codified knowledge. Teachers have a sense of agency in relation to their collaborative transformation of codified knowledge, which includes engaging with and in research. This professional identity makes them feel only they can make explicit codified knowledge usable through refining or filtering it, that is, through recontextualization. Teachers use tacit knowledge gained from experience in knowing what works in the classroom. Recontextualization is the key concept characterizing this transformative process bringing differentially valued forms of knowledge together. When it works, the successful outcomes are improved practice and enhanced professional knowledge.

6.4 Theoretical proposition generalized from the Relational Model

Agency with respect to the immediate teaching-learning situation takes priority and drives the recontextualization process.

There are two main points that can be derived from this discussion of the findings and the relational model. Firstly, the most important factor for participants, in how they view research and use it, is the specific context of the situation, whether that situation is seen at the level of the classroom, or the school, the network or community of practitioners. No matter how valid the published research findings are seen to be, all teachers insist that they cannot merely apply that knowledge directly, but have to work on it by a process that they describe as filtering or refining, in fitting it to the needs of the children in their care, and to the context of the school's situation.

Secondly, this filtering process is not a relatively passive one of selection or of application to a situation. Rather, it is an active process of appropriating and transforming the explicit, codified knowledge produced by others into professional knowledge, which is a fusion of explicit and tacit knowledge. This active process is a matter of taking ownership as part of a developing community of practice. It gives practitioners a sense of ownership and control over that knowledge, which they see as a central part of their professional practice and ethical commitment. They see that they would not be doing right by the children in their care if they did not do this.

The active transformation involves a sense of agency through collaboration. It is not merely a question of whether individual practitioners can use a feeling of

empowerment to use research to inform their own practice. More importantly, the empowerment is seen as an attribute of the school culture as the organizational, social setting within which the community of practice validates itself and provides subject positions within which individual practitioners can find a way of acting professionally, and through which they have a sense of belonging and affirmation.

It is the crucial importance of this sense of agency and belonging that has not been sufficiently acknowledged in previous studies, beginning in 1996 with Hargreaves' critical publications of why teachers have not been using educational research, publications that initiated the whole debate about the value and applicability of such research. Hargreaves, and most of the contributors to the debate that followed, regarded the use of research evidence and primarily a matter of systematically incorporating it into the existing cycle of transforming practitioners' 'craft knowledge' derived from professional experience into improved practice. See, for example, Thomas's introduction to the Open University set book of readings, *Evidence-Based Practice in Education* (2004:9). So the focus for the first part of the current century has been on how to make teachers' aware of research, or how to improve their access to it, often as part of professional development. The subsequent incorporation of that research knowledge into practice has been seen to be relatively unproblematic, consequently the active agency of teachers in that incorporation has been either neglected or, when acknowledged, it has been relatively untheorized or analysed.

These two related points require the whole question of how teachers utilise research to be re-framed, to give full weight to the significance for teachers of situational, social practice and to the sense of agency within that practice.

To begin that re-framing, it is necessary to note, as one of the findings from the analysis of the English case data, that the problem of using codified, published research knowledge is not one of communication or dissemination, as Bassey suggested. Nor is it necessarily one of engaging teachers in research, as the TLRP project suggested (see Chapter Two, section 2.3.2). These are both factors, but they are not seen as crucial by these teachers. Although some of the respondents refer to the difficulties of having enough time to read published research, in the English case the problem of access seems in many respects to be resolved practically by using evidence-champions who are given time to access research findings and the responsibility of communicating them to the rest of the community. Similarly, engagement with research is not an issue for these teachers, because they see such engagement as an essential element in their professional practice and identity, which in turn is both derived from the school's culture and endorsed by it.

The teachers conceive the most important research activity is what they themselves do as part of a process they describe as finding out 'what works'. This practical engagement emphasises a positive view of research, though it is also a problem with respect to the dominant discourse of educational research. It is a problem that has been much discussed in the debates about the notion of the teacher-researcher. The problem here is that action research, or any teacher-researcher activity that is concerned with producing situated knowledge, which by definition is focused on a particular context, even if that context is one of networked schools, cannot produce, and does not aim to produce, codified knowledge that is seen to have value regardless of the specific context. Yet that codified knowledge is precisely what

educational research in a wider, 'academic' sense aims to produce, and it is this that is valued most by policy makers as well the wider (global) research 'community'.

The different values placed upon various kinds of knowledge, principally tacit and explicit knowledge, is something that can only be inferred from the interview responses. Nevertheless, the inferences that can be made from respondents' comments about what research means to them provide a means of understanding the connection, for the respondents, between that meaning and the view of the school culture.

Respondents' interpretations of what research means depends on whether it is published research or something they do. If it is published research, then the idea of filtering is very important. If it is something they do, then the emphasis is on 'what works'. What connects both interpretations is: whether respondents are finding out about published research or whether they refer to what they themselves are producing, everything has to be seen in terms of the immediate school context and their professional knowledge of it. A focus on the importance of the school is evident for all respondents. This strong allegiance to the school culture and identity influences significantly how respondents see their roles.

Research is seen by all respondents as a necessary part of the teaching role, and also for professional development. Yet any professional knowledge produced, either by engaging in research projects, or through training or derived from studying research produced elsewhere, is seen by all as only relevant to what is important for this school. Any sense of research being relevant to a wider community of practitioners,

or to the teaching profession as a whole, is minimal. Some respondents regard anything not useful for improving their particular school as pointless.

Can this be regarded as evidence for the existence in this school of a 'community of practice', as conceptualized by Lave and Wenger (1991)? This seems likely. Note that this exists alongside a sense of a wider network that includes other schools, but while this is important this particular school community is still given priority.

Note further that research is regarded as important for improving practice, but only a few respondents are able to describe or articulate how it is actually used for such improvement. This tends to remain part of their professional knowledge, as a tacit element. Following on from this, the valuing of tacit knowledge derived from practical experience is very high. Explicit or codified knowledge is regarded as always being something that has to be filtered and judged according to 'experience', because professional knowledge derived from practice and experience is always regarded as more 'useful' than explicit knowledge produced elsewhere.

There is nothing in the interview responses to suggest that this valuing of tacit experiential knowledge in relation to how educational research is perceived is seen as wrong or insignificant. On the contrary, the respondents themselves regard it as highly significant. This valuing of situated knowledge over codified knowledge, which is related to the distinction between tacit and explicit knowledge, though not exactly equivalent to it conceptually, means that the only way educational research in that wider sphere of rigorous academic scholarship, regarded as possibly informing policy development, can be useful to practitioners is by considering more closely exactly what is involved in that 'filtering' process to which teachers give priority. The

problem is that the teachers themselves cannot easily express explicitly precisely what that process entails. The issue here is that what counts as valid and reliable evidence for the practitioners is not necessarily what would be counted as valid and reliable by scholarly principles, or by policy makers, particularly where that policy is seen to be best developed by the kinds of 'scientific' study that is seen as analogous to scientific studies in medicine, with its emphasis on large-scale clinical trials across many contexts or in highly controlled ones. The teachers are shrewdly and cleverly engaging with the discourse of educational research, in employing concepts such as evidence-based practice, but the activities designated by their use of this discourse do not correspond to what academic researchers and policy makers mean when using that discourse. And the reason for this lies in the different value placed on situated knowledge, however much that knowledge is made explicit.

Eraut (1994) has sought to invoke the analogy of teachers with medical practitioners in order to argue that what teachers do as professionals is not merely a matter of applying codified research knowledge to practical situations. In a discussion of what he calls 'practice-based evidence' (in Thomas & Pring, 2004), he sees teachers as professionals like doctors, whose responsibility is to come up with a good diagnosis when presented with a problem. Hence teachers are prepared to use (and do) research if it helps them with their diagnoses, but this is entirely different from scientific medical research designed either to identify the cause of illnesses and diseases, regardless of individual patients, or to test the efficacy of particular drug treatments.

By analogy, teachers use research findings in making a diagnosis of children's learning needs in a particular school situation. Indeed, in the English case respondents frequently made reference to 'problem-solving' in relation to 'meeting

children's needs' and how they see research as only being useful if it helps them to find those solutions. Making a diagnosis involves a combination of tacit and explicit knowledge. But what Eraut misses, or does not regard as significant, is the same thing that is missing from that whole published debate about evidence-based practice or practice-based evidence: agency.

In the English case, the sense of agency is more implicit than explicit on an individual level. What comes through more strongly is the sense of belonging to a collaborative school community. How much is this specific to this school? It should be taken into account that this school may not be typical. Also, how much are the respondents presenting the agreed school policy because that is what they think an academic researcher wants to hear?

If, however, the interview responses are taken as representing the actual perceptions of the interviewees, what can be noted is how the different roles of respondents seem to affect their perceptions. One might expect that the newer, less experienced teachers would also have less of a sense of agency than the more experienced teachers. But what the interview data shows is that there is a difference, but it is not this, because all teachers, whatever their role, have a similar sense of agency in relation to a collective enterprise which is the community of practice in the school. Instead, the subtle difference is that the more experienced teachers, those in a strategic or specialist role, have a stronger sense that the school culture, and hence the community of practice, is something that has to be worked at constantly and developed; whereas the less experienced teachers tend to take the culture and community as given, and are just pleased that they are in a 'good' school.

So, for the English practitioners, agency is more a social, collective or at least a collaborative matter than an individual one. In order to understand this, a more complex concept of agency needs to be developed, and Barnes' relational conception of it might be a starting point, as argued in Chapter Two, section 2.6.

Agency has emerged in this case study as the necessary component in what the practitioners call filtering. This is an active process of participants making the codified knowledge their own. It is crucial to their collaborative work, and so filtering is the essential means by which teachers exercise agency and develop it, in order to establish and maintain the community of practice, and to derive a sense of belonging to that community, which in turn is how they derive their agency.

By analogy, and in terms of the same kind of analogy as Bazeley used to explain the difference between categorization and theorization (see section 6.1 above), one can think of the activity of buying something off-the-peg, as 'ready to wear', and then taking it home in order to adjust and tailor it to one's own measurements. This tailoring metaphor perhaps describes better what the teachers are doing than does their own metaphor of filtering, as tailoring has a much more active connotation, implying the taking of material from elsewhere (the uncut cloth) and engaging in an active process of customizing it to the specific context of these children, in this school. Maybe teachers are slightly self-effacing, and know from long experience of dealing with authorities that to use a filtering metaphor in their discourse draws less attention to their own need for, and emphasis on, a sense of agency and appropriation. This is another reason showing that the calls for teachers to be given greater access to published research findings is to miss the point, and to make the same mistake as thinking that it is a matter of dissemination.

Equally, as Stenhouse (1975) and later Carr and Kemmis (1986) argued, and following them the whole discourse around the reflective practitioner and action research, encouraging the notion of teachers as researchers and conceiving teaching as evidence-based, or evidence-informed, practice implicitly acknowledges the importance of agency and a sense of owning the knowledge produced, but presents this as an alternative to 'filtering' published codified knowledge. But these teachers actually see it as another element in that filtering process. The English participants talk about doing classroom research in order to confirm 'what works' or what published research claims about 'what works'. For them, the filtering means finding out 'what works in this context', because they are suspicious of, or even reject, the idea that what works can do so across all or many contexts. So, action research is not for teachers a way of producing codified knowledge in the sense that academic scholars might understand it. Instead, the participants see action research (though mostly they do not use this term) as a vital part of that filtering process, particularly the checking and confirming stage of that process.

6.5 Conclusion

In summary, participants see themselves as practitioners for whom the specific context in which they seek continually to solve the problems of meeting children's needs is a matter of developing situated, professional knowledge that gives the greatest significance to a school culture of collaborative practice. This form of knowledge values highly its tacit component, but as practitioners in the

contemporary policy context the English participants see this as a question of professional development based on utilising experience as part of a developing community of practice, while not expressing it directly in these terms. The knowledge derived from that professional experience is deployed in order to ‘filter’ the codified knowledge produced elsewhere. Any research that they engage in themselves is part of that filtering process, to confirm ‘what works’ in their specific context. It is an activity that is part of the recontextualization process. The dominant, individualistic conceptions of agency make it hard to arrive at a better analytic understanding of why it is so important, and exactly how practitioners make research work for them. This research study shows that a more complex conception of agency, in relation to different forms of professional knowledge, is needed than is generally utilized in educational discourse, or indeed in the academic discourse of the social sciences.

Chapter Seven: Conclusions and Implications for Further Research

7.1 Proposed answers to the research questions

This study has addressed three main **research questions** and one that is subsidiary to them though of more than minor importance. The first one is: what kinds of meanings and values do school teachers attribute to the use of educational research in relation to their own practice? The second, related question is: how do social practices contribute to the use of research by practitioners? The third question is: what does the available literature indicate about the meanings and values attributed to educational research in relation to school practices, particularly in England and the Shanghai region of China? A further, subsidiary question is: do variations in teachers' social practices reveal any cultural orientations to different kinds of knowledge? These questions were intended to explore in two school settings, primarily one in Shanghai and for complementary case purposes one in England, whether the debate begun in the 1990s about the usefulness or otherwise of educational research had led to any practical resolution for the teachers concerned. That debate highlighted a problem with the way that research knowledge is presented. This was stated by Black and others in their reflection on an influential research project, *Assessment for Learning*: —

Teachers will not take up attractive sounding ideas, albeit based on extensive research, if these are presented as general principles which leave entirely to them the task of translating them into everyday practice — their classroom lives are too busy and too fragile for this to be possible for all but an outstanding few.
(Black et al., 2003:12)

This study has shown that in the Shanghai setting the teacher-practitioners do have the perception that the task of translating principles into practice is indeed left almost entirely to them, with minimal support from inspectors. This does not mean that those teachers refuse to take up ‘attractive sounding ideas’ or turn their backs on pedagogic innovations. On the contrary, the school has a reputation for leading and managing pedagogic change in that context. Yet it is a major challenge for those teachers, and the interview data shows that the way they experience it as a burden with respect both to their workload and to their capabilities suggests that, even if the challenge is being met, it is not pointing to the general way forward in this area.

The evidence from the English setting is that there has been some progress in terms of the solution for teachers proposed by Black and the others’ reflection on their project: ‘What they need is a variety of living examples of implementation, by teachers with whom they can identify, and from whom they can derive both conviction and confidence’ (Black et al., 2003:12). According to the participants, this has been achieved by the establishment of a collaborative schools’ network, which also functions as a learning community for both practitioners and pupils. Although this organizational structure is probably transferable, the emphasis by Black and others on specific exemplars at the level of practice seems to depend on the individual excellence of experienced practitioners to provide those exemplars. This may or may not be transferable to other settings, presumably dependent on the skills of the practitioners in that context.

What is not obvious from that emphasis on exemplars is the nature of the process involved in producing them. That ‘task of translating’ principles and other codified knowledge resulting from research remains, to use Black and Williams’ (1998) own

metaphor, a black box. This study has shown that, within a knowledge-creating school (Hargreaves, 1999), the process involves a reliance on a form of social practice that is familiar to them from the tasks that they carry out in translating curriculum subject knowledge into ‘what works’ in the classroom, and which can be conceptualized as recontextualization. To put it in terms of the kind of ‘fuzzy generalization’ favoured by Bassey (1999:51-54) in the reporting of case studies: the use, if any, that school practitioners make of academic research *is likely* to depend on whether they can appropriately recontextualize that research according to the professional knowledge they value in their own practitioner networks or communities of practice.

It can be seen from this summary statement that in answer to the first research question, the kinds of meanings and values that participants tended to attribute to educational research are closely related to their sense of what works in the classroom. If the research can be subjected meaningfully to recontextualization according to their view of what works in the specific situations they know then it will be valued highly, though its findings will not be regarded as being amenable to direct application. If research cannot be subjected to recontextualization then it will be regarded as inappropriate to the immediate situation, though this judgement will not be made without initial investigation sometimes involving some small-scale action research undertaken by the teachers themselves. In other words, educational research of any kind is not rejected or ignored; on the contrary, it is readily sought, but not as something that displaces the practitioners’ sense of agency. However proven it might be elsewhere, research must always be transformed in relation to the context of the situation facing the teachers daily. The principles that they have derived, mostly tacitly, from their shared experience about good practice are deployed to give

meaning and value to research produced outside of their own context. For research produced by themselves or others in the Shanghai context, it will still not be regarded as meaningful or valuable if the research activity is perceived to be a requirement imposed by external authorities, even if they have some discretion over the research topic. For research produced by teachers in the English context, it is perceived to be meaningful and valuable as much for how it enhances the sense of the school community as for its potential enhancement of transferable good practice.

The study indicates that with respect to the second research question that social practice is crucial to the perceived use of research by practitioners. If individual teachers are expected to do research on their own without extensive support and guidance, and without being part of a team that is prepared to work collaboratively and given the time and resources to do so, then they are not likely to fulfil this expectation, not because of a lack of motivation but because of a perceived lack of skills and time. This view was expressed strongly in the Shanghai setting and hardly at all in the English setting. This is perhaps not surprising as in the Shanghai context research tends to be more a matter of individual responsibility, whereas the organisational structure and processes in the English school, and the network in which it plays a leading role, ensure that practice is indeed social rather than individual in emphasis.

The third research question, concerning what the available literature indicates, was addressed mainly in Chapter Two of this study, the conceptualisation and literature review. That review concluded that because the conception of educational research is itself problematic and contested, there are important differences in that literature about how teachers should regard their professional practice, and the role of

engagement with or in research as part of that practice. The review identified four main approaches related to those differences. None was seen to be fully adequate, either to an understanding of the problem or to resolving it. The inferences from the review were that the literature tends to proceed from an insufficiently theorized conception of professional knowledge with respect to the differential valuing of the tacit and explicit knowledge that teachers must integrate as professional knowledge; and from an insufficiently relational conception of agency. Both inferences were shown by the data analysis reported in this study to be justified. The interview responses of the research participants could not be fully explained by the conceptions available in the existing literature. In particular, the priority given by participants to protecting their sense of professional agency, informed by their view of being uniquely positioned to deploy professional knowledge of their teaching-learning situation, and how that agency is exercised in the process of recontextualizing explicit, codified knowledge produced by research and policy makers in order to make it meaningful, are prominent features of those interview responses that existing literature either ignores or treats as relatively unimportant.

This leads to the findings with respect to the fourth, subsidiary research question.

Yes, the variations in social practice between the Shanghai and the English settings reveal cultural orientations to knowledge, but not quite as might be anticipated.

Practitioners in both settings tend to place a higher value on tacit, situated knowledge derived from their experiential learning than on explicit, codified knowledge produced elsewhere. The difference in cultural orientation is that this higher valuing of tacit knowledge is more likely to be validated by the wider society in China than is the case in the English context, where the need to produce a good evidence base, in the form of codified knowledge with which to underpin practice, is more present.

The sense of professional agency in the English setting is perceived to be enhanced and justified by the transformation of tacit into explicit knowledge, whereas in Shanghai the sense of professional agency is perceived to be more closely related to an ethical commitment towards pupils, even if the practice involved in demonstrating that commitment relies on tacit understandings. In both case settings, the sense of agency as empowering is derived more from a corresponding sense of belonging to an emergent community of practice than from individual professional development, though teachers' tacit knowledge acquired through their experiential learning from practice is conceived by them as a key outcome of that development. That sense of belonging is itself derived from a movement of collaborative participation and reification, more readily seen from a Chinese cultural perspective as akin to a dynamic balancing of contrary yet complementary opposites, as in the traditional principles of *Yin* and *Yang*.

7.2 Conclusions in relation to previous research

To what extent do the answers to the research questions provided by this study align with what the literature review suggested has been proposed by previous research?

The previous section has summarised the conclusions from that review with respect to insufficient conceptualisations of the research problem. This section considers the implications for how relates to the current debate about the utility and the utilisation of educational research. The original problem posed in the mid-1990s was that many teachers in schools do not seem to be using educational research. In the various

articles and reports that initiated the debate about this, discussed in the literature review, the finger of blame was pointed at academics who, it was claimed, tend to focus on research topics and problems that are only of interest to them. This explanation was the one that dominated that original debate, with educational research done in academic institutions being attacked or defended with equal vigour, though with not much rigorous evidence to support opinions on either side. There is no evidence from the research study reported here that teachers regard academic research as lacking in relevance to their context of practice. They may have time to focus only on research that is concerned directly with pedagogy rather than on wider issues about education in society, yet there is no evidence that teachers regard research on those issues as useless.

The second explanation considered in the literature review was that academic research is either hard for teachers to access or it is not disseminated properly. Again, there is no evidence from this research study that its participants regard access or dissemination as a key factor. In Shanghai, lack of time to read published research was a difficulty, though this did not affect participants' eagerness to become familiar with such research; they also invite academics to come and talk to school practitioners, as well as inspectors assuming responsibility for dissemination. In the English setting, a distribution of responsibilities across a network and the employment of specific 'champions' with the resources to access published research has helped to resolve any perceived problems regarding dissemination. One obvious difference in both China and England since the debate was initiated in the 1990s is the enormous growth in the internet, providing a great deal of online access to all manner of research resources without a teacher having to go anywhere near a scholarly library. Yet this social change does not seem to have been incorporated into

the continuation of that debate, whose focus has remained on the quality of academic research and whether it is reported in an accessible discourse.

What the participants in both settings in this study present as the most fundamental priority for them is how to use both their existing knowledge or ‘what works’ in their teaching-learning situation and to use research where that might prove useful to improve ‘what works’ in that situation. What matters to teacher-practitioners is their teaching-learning situation, their school community and teaching team, and their students. The particular children under their care, not children in general, are their focus. Anything that does not help them to stay with that focus and what they see as their fundamental ethical task is necessarily set aside; they do not have time to make such research relevant if it is not perceived to be capable of helping with that focus. It is important to note that no research finding is regarded as being immediately relevant and straightforwardly applicable, so when existing literature debates the usefulness or otherwise of educational research, what tends to be minimized or ignored altogether is that practitioners regard their own agency as being what makes research meaningful. This is because by its very nature, such academic research cannot take account of the specific characteristics of the practitioners’ context.

Academic research generally seeks outcomes that will produce explicit knowledge seen to be applicable across contexts. Even case study research, and action research whose prime aim is to enhance particular practices, attempts to come up with knowledge that might be transferable to other contexts, as with the study reported in this thesis. Explicit knowledge that is relatively context independent is more highly valued by policy makers than other forms of knowledge, hence the status accorded to

randomized controlled trials and quasi-experimental methodologies by government authorities in England, and the emphasis on ‘scientific research’ made by the educational authorities in Shanghai; whereas for the teachers and practitioners in this study, the knowledge that matters for them is context-dependent, dependent on ‘what works’ and their knowledge in that particular classroom situation. So it is not therefore that they ignore or dismiss research into pedagogy, but they do regard all such research produced outside of their context as something that they will have to work on, to make it meaningful and usable.

Attempts by authorities to impose general pedagogic approaches or particular methods of teaching as a matter of policy that is justified by such external research evidence can of course be implemented by inspection regimes, and teachers will strive to make them work as a matter of professional responsibility. But the idea that a particular pedagogy has been proven to work across many contexts, and so should be applied in the specific context which the teachers in this study are facing daily, is not something that they agree with, because they do not regard it as good professional practice to minimize the influence of the specific situation in this way. The participants in both settings are saying in effect, ‘Sorry, but unless we are given the opportunity to use our professional sense of agency to try out and even test a particular pedagogy in our specific context, then we experience this as an external imposition that does not lead to good practice, and will not enable us to fulfil our ethical commitment to meeting our children’s needs to the best of our capabilities.’ They will avoid using research findings that they feel cannot be applied in their specific context, though they are prepared to do what they see as their rightful professional work on the explicit knowledge that comes from those findings, to establish for themselves whether or not that knowledge is applicable. In this way,

engagement in research is a necessary complement to engagement with research, and both are crucial elements in the recontextualization process.

7.3 Recontextualization

At the heart of what teacher-practitioners do to make it relevant and usable is a process that was conceptualised by Bernstein (2000) in the 1990s in his highly systematized model of the pedagogic device. This process concept, which is also an organizing principle of pedagogy, is recontextualization. At the end of that decade Dowling (1998) took up Bernstein's concept and has continued to modify it in his subsequent research. It has been invoked in the model derived from the analysis of data in the study reported in this thesis, and in the tentative theoretical formulation suggested by that model. Although Dowling's (1998) definition has guided the concept's use here, that use is slightly more restricted than either his use of it or Bernstein's. This is mainly because the evidence from this study does not justify the kind of generalized use of the concept that both Bernstein and Dowling employed. Instead, there is evidence here that teachers engage in a recontextualizing process when trying to make meaningful for classroom purposes the explicit research knowledge produced elsewhere, because this is a process with which they are familiar in making usable curriculum documents and other codified knowledge embodied in textbooks or similar published learning resources.

The key point from this study is that teachers engage in recontextualizing explicit codified knowledge, though when asked about what they are actually doing in this process, they cannot spell out in systematic ways exactly what they do. They can give a number of small examples, but mainly when asked to describe what they do in any general terms or systematic terms, they use cultural idioms or metaphors.

In other words, they are using their situated tacit knowledge, just as Nonaka and Takeuchi (1995) found in their study of craft workers and organizational professionals, as Schön (1983) argued in his studies of professionals engaged in reflective practice, and as Lave and Wenger (1991) found in their studies of different kinds of apprenticing within communities of practice. In each case the practitioners articulate their situated tacit knowledge in idioms, metaphors, anecdotes or examples. In this study, the metaphors and cultural idioms used by the Shanghai participants were grouped around the notion of ‘refining’. This is similar to the metaphor of ‘filtering’ most often used by the English participants. The participants were not in a position to say systematically or procedurally what such metaphors actually entail in practice. That is, the metaphors remain metaphors; they do not signify precise procedural concepts that can be stated in explicit, codified form. The most that can be said by them is that the refining or filtering takes place according to the principle of ‘what works’ in their specific situation, not situations in general, and that their knowledge of what works comes largely from their professional experience.

This does not mean that they do not also use their explicit knowledge; nor does it mean that their tacit knowledge is never translated by them into further explicit knowledge in the form of reports of their own research. Indeed, their existing tacit knowledge and new explicit knowledge are incorporated into enhanced professional knowledge that is both individual and shared. But all participants, including the novice teachers, express a strong sense that this is something they are doing, not having done to them. This strong sense of agency is how the meaning of their social

practice, and their associated professional identities, are maintained and developed. Being instrumental agents of ‘the pedagogic device’ or of any other model that reduces their professional role to one of implementation rather than co-creation is not something they intend or value, and any model that misrecognizes their view of their own agency will probably miss the point about the meaning of recontextualization too. By showing this, the research reported here differs subtly from what existing research literature on this problem has presented, and to this extent the study reported here may be claimed to be offering a distinctive contribution.

7.4 Implications for further research

What this study has found, and presented in answer to the research questions that have driven it, has implications for further research and for the direction of educational research, particularly into pedagogy, as well as for policy considerations regarding the professional development of teachers. These will now be indicated.

For the practitioners in this study, there is a broad difference between their orientation to educational research and the aims or principles governing that research, aims that are shared with other branches of social research. One of the aims of the latter is to produce explicit codified knowledge that is context-independent, or at least does not depend for its meaning and value on one specific context or several similar ones. ‘Context’ here includes time as well as social space: explicit codified knowledge has value to the extent that it is seen to be valid over a period of time, and is not confined to a few occasions or refer to one particular conjuncture.

Although all codified knowledge is expected to be revised or more fundamentally changed as wider social conditions change, as a general rule-of-thumb the longer

those conditions are perceived to remain in place, the explicit codified knowledge that persists in appearing to be valid during that time is valued more highly than explicit knowledge that pertains to the present moment. For example, Sinclair and Coulthard's (1975) model of teacher-pupil interaction in the classroom as a structure of initiation-response-feedback [IRF] is regarded as having explanatory power for many different kinds of formal classroom environment, over many time periods since its first exposition in the 1970s. As a consequence, the explicit codified knowledge it embodies is highly valued in educational research (MacLure, 2001:182).

In contrast, for the practitioners in this study their orientation to research, including their own, is about producing professional knowledge according to the principles of their tacit knowledge of 'what works' in their present situation. That professional knowledge may have a wider validity across other contexts and its validity may endure for a long period of time, but that is not what they are aiming for, as a principal reason for engaging with and in research. Their children's learning and developmental needs, and the immediate teaching-learning situation in which they must be met, are their paramount concern; they take priority over everything else.

So the contrast is between an orientation that is positively valued towards what is situated and context-dependent, and research aims that are context-independent with respect to the explicit knowledge produced. This contrast can be seen within the field of educational scholarship regarding action research, as considered in the conceptualisation and literature review of this thesis. In as much as teachers engaged in their own classroom research in both settings could be said to be doing action

research, then the knowledge produced tends to be valued highly by those teachers, mainly because it is research about ‘what works’ in their situation. For that very reason, the status of that knowledge will not tend to be as highly valued in the wider educational research community, because it would be seen as being too context-dependent. That wider community is not the main concern of these practitioners; it would probably be unreasonable to expect anything else. They would not see their engagement with and in research to lead to knowledge that is valid and relevant for all teachers everywhere, or even for many teachers and schools elsewhere. Indeed, they would oppose this on the grounds that claiming to know ‘what works’ elsewhere would undermine the professional identity and integrity of their colleagues in other school situations and contexts.

Furthermore, these teachers express no great wish to be signed up as participants in vast randomized-controlled trials of teaching interventions, which would reduce their role as teacher-researchers to being cogs in a grand research project machine. The school leaders in each setting are open to being involved institutionally in collaborative projects across larger professional networks than their current ones, though not as the main research activity for their individual teaching colleagues. Their view can be summarised as expressing that the further the origin of the explicit codified knowledge from the immediate situation, the harder it is to make such knowledge relevant and meaningful for that situation.

Although the participants unanimously regard it as appropriate and good for their practice to work with published research knowledge and engage in research themselves, even if it is challenging to do so properly without (in the Shanghai case) enough resources, support and time, this does not directly overcome the research

problem that initiated this study, of how to make educational research more used and usable.

What is to be done? However much teachers engaging collaboratively in research into their own situations is something to be endorsed, ultimately state policy-makers would not be likely to regard this research activity as sufficient for establishing the evidence-base for their policies. Necessarily they have to operate institutionally at the level of the whole society. They must develop policies that would be appropriate for a whole country, or at least for a whole region in the case of China. In the present circumstances of formal state education in both China and England, the policy-making authorities are not going to grant complete autonomy to schools or networks of schools to develop their pedagogic policies and practices, though as both settings here showed there is more relative, local autonomy than perhaps all teachers believe is available to them. What, then, is the role for academic educational research that might be expected to inform state policy-making and which necessarily cannot just be submitted to recontextualization entirely at the local level? In Bernstein's terms, the *Official Recontextualizing Field* is unlikely to cede control to the *Pedagogic Recontextualizing Field*, particularly (as Bernstein himself pointed out) since the 1980s the tendency has been in the opposite direction with the former demanding greater control over the latter (Bernstein, 2000:33;56-61), even though this might have been disguised by apparent regional and school autonomy regarding governance, and by changed management styles, 'veiled' hierarchies and communication networks (Bernstein, 2000:70).

One possible way forward is to take a step back from this contrasting dilemma, and to ask what academic researchers might do to help practitioners in schools understand better what their recontextualizing actually involves. What are they actually doing when they are ‘refining’ or ‘filtering’ research and other kinds of explicit codified knowledge? Rather than focusing academic research on discovering pedagogic principles and procedures that aim for outcomes that state in effect, ‘this is how to teach this particular subject or curriculum content more effectively’, which is likely to be perceived by school practitioners as telling them how to do their professional job, it might be better to focus on trying to discover exactly how teachers actually bring their tacit knowledge and explicit knowledge together collaboratively, to integrate them into enhanced professional knowledge that will inform their improved social practices for meeting their students’ needs.

What do those metaphors of refining and filtering actually entail? Can the situated tacit knowledge implicated in those processes be transformed into explicit codified knowledge that is relatively independent of particular pedagogic contexts? Although no doubt many research studies could be found that report on how teachers use learning and teaching resources in the classroom, and how what they do in the classroom is aligned by them with the requirements of curricular and other explicit knowledge to which they are accountable, might it be possible to ascertain what successful recontextualization might look like? Might it also be possible to produce explicit, relatively context-independent knowledge about the context-dependent activity of recontextualization? Which factors in particular contexts enable successful recontextualization, and which hinder it or set barriers to its accomplishment?

These questions return the argument to the challenge of integrating theory and practice in educational research, to the concept of praxis as expressing that integration, but only if it can be made meaningful for the twenty-first century and not remain linked intrinsically to action research as earlier formulations of that challenge proposed (see Chapter Two, section 2.7).

Practice, as they say, is ‘theory-soaked’. If that is so, we need a separate word to connote the combination of the act of teaching and the values, evidence, theories and collective histories that inform, shape and explain it, a word that will lead us away from the blinkered pragmatism of ‘what works’ into the realm of ideas and argument. That word ... is pedagogy. (Alexander, 2008:173)

The praxis of pedagogy: Robin Alexander’s call for a little unpacking of ‘method’, cited in the introduction to this thesis (Chapter One, section 1.1), has led the unpacking involved in this case study to open up a third word where that praxis meets research.

The kind of further research implied here by this study, though beyond its scope, would concentrate less on the outcomes of pedagogic activities, on how such activities can be measured and evaluated by their effects on pupil attainment and achievement. It would also concentrate less on what teachers actually do in the classroom. Both of these kinds of research are worthwhile and necessary, and they are widely undertaken, but in themselves they would not help practitioners to develop their professional knowledge and capabilities with respect to those aspects of their social practice beyond the classroom door, those activities that they call refining or filtering and what has here been subsumed under that third word, a concept of recontextualization. By seeking to understand exactly what those metaphors name,

but do not explain, academic educational researchers might thereby make their research more useful and useable, helping to overcome the dilemma about meanings and value attached to different kinds of knowledge in relation to different learning contexts, whilst fully acknowledging and respecting practitioners' professional sense of agency and identity.

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Appendix 1: Interview Schedule

This appendix presents the final interview schedule of structured questions that were used in the semi-structured interviews in both the Chinese and the English case settings. The questions were developed after several revisions, incorporating minor amendments following the piloting of the schedule with a small convenience sample of Shanghai school teachers.

Interview Schedule: structured questions

1. How long have you been a teacher of English? How long in this school?
2. Would you regard yourself as an experienced teacher? [Follow-up:] What do you think makes a teacher experienced as a practitioner, as distinct from being a novice?
3. Please explain for me what the word ‘research’ means for you.
4. Do you think research is part of your work as a teacher? [if yes:] Can you tell me about a recent occasion when you used research, or would have liked to use research? [probe further as to whether it was expected or self-initiated, and whether the research was published or the teacher’s own]

[If no: it would be helpful if you could give me some reasons for this. Is it because you would like it to part of your work but practically it’s not possible, or because you think it is a mistake for anyone to think that research is part of teachers’ work?]

5. Tell me about a time when you successfully solved a problem in your teaching. Can you talk me through how you went about solving it?

In the future, if you face a problem or a challenge in your teaching, how would you go about dealing with it? For instance, would you rely mainly on your teaching experience, or would you seek advice from colleagues, or would you go to a

government document or book or research paper? [and if they say 'a combination of all those]: what if you received conflicting advice? What would you do then?

6. Do you think research should be part of your work as a teacher?

7. Could you help me to see how you use your experience in your practice as a teacher? [Could you tell me how you keep up to date with your professional knowledge? When you are improving your practice, can you help me to see how you go about doing this? Could you talk me through an example of how you improve your practice?]

8. Are there any barriers or difficulties that you think make it difficult for you to keep your subject knowledge or pedagogical knowledge up to date as part of your work?

[If so:] What are those barriers or difficulties? Is it possible to overcome them, in your view? [If not:] What are the things that make it possible for you to keep up to date?

9. Do you see yourself as someone who works mainly on your own or mainly as part of a team of teachers?

10. Can you help me to see what it means to belong to the language team?

11. How do you see your role as part of the language team?

12. How would you like your team to work – as it is now or in some other, different way? [what are the aspects of working in a team that you think I should know about?]

Appendix 2: On Observation Data

Three key points from the observation of meetings and classes in the Shanghai case setting

1. As teachers know I am a PhD research student in England, they show their interest in what is the big picture in the western pedagogical understanding. Thus, I was asked to deliver a presentation for the team of teachers on 'Educational theories and principles for teaching and learning'. After my presentation, the overall comment was that it gave them a better understanding of what they are asked to do in the form of tasks from the district inspector. One important question I received was about action research and the status of it in U.K. schools.

2. In every teachers' meeting, individual teachers discuss either children as a whole or individual children who have behavioural problems. The main focus was on children's background, and the fact that they come from families of migrant workers. For example, in one meeting Wun Ya talked about her class, and that one boy went missing. Eventually it was discovered that he had left home. Afterwards, when he was asked why he did this without talking to anyone he knew or to his teacher, his response was that he has not seen his mother for a long time. The lack of affection and attention that those migrant workers' children experience at home has led to some of these children showing behavioural difficulties at school. Because there is no other support infrastructure or any equivalent of British welfare or social services, the teachers in this Shanghai school have a strong ethical commitment to the emotional nurturing of the children in their care and to their moral education, over

and above that which any professional practitioner would possess. Although this is an important component of the reformed curriculum, the characteristics of the school enrolment means that the teachers give this ethical commitment a very high priority, and consequently this priority is evident in many of their interview responses.

The other example was shared by Nam Chau. One topic of teaching topics in her English language class was about ‘Where do you go in winter vacation?’ This vacation period encompasses the Chinese New Year and is expected to be an extended family gathering, the counterpart of the Christmas vacation and family gathering in the U.K. She said that the children in the class were ‘*ya que wu sheng*’, silence reigns (literally this means ‘neither crow nor sparrow could be heard’). Later, the teacher found out that most of children’s migrant parents simply do not have the time or money even to go back to their home towns or villages and families. Many of them have to keep working through the national holiday. In other words, they children are lack social and cultural opportunities to enable them experience what is normal for much of the population, including the national festivities and contact with their extended family, which is very important in Chinese culture. So Shanghai teachers had to prepare what they called ‘zero teaching hour’ before they introduce students to many curriculum topics. Nam Chau explains: —

When we had the ‘open class’ [demonstration for other teachers] for Year One, the District Inspector said that the main purpose is to help us understand and do better on Year One’s ‘zero teaching hour’. The process of this is research for us. It involves identifying zero points [=threshold concepts] and how to embed them in a contextual topic while meeting the curriculum standard.

Because the textbooks that teachers are expected to use consist of many contextual topics that are not relevant to the children’s experiences or lives outside of school, they have to recontextualize the curriculum materials for each lesson. Unlike many

other schools in the region that have a different enrolment profile, these teachers cannot just follow the textbook. Instead, they have to spend additional time recontextualizing learning resources. Consequently, focusing on how to improve their practice in this respect is their main research activity. It is a form of what in the U.K. is called action research, though the Chinese teachers were not familiar with this term until I discussed it with them.

The responsibility for compiling the recontextualized learning resources for each lesson is shared with other English teachers in the Teaching and Research team within the Primary School. Each teacher is responsible for one unit. The pedagogic use of the resources is then agreed by the team.

3. An assessment scale for compiling feedback on students' emotional development was set as a research task by the District Inspector Kat Chu. Several of the teachers' meetings I observed were concerned with developing this scale. The task was not completed by the teaching team during the time I was collecting observation data, as had been expected.

The following extract from a recorded discussion with the District Inspector shows the relationship between the regional authority with respect to research and the Inspector's view of why the task was not completed by the school teachers within the timescale set. In Bernstein's terms, this interview evidence indicates something of the relationship between state agents of the Official Recontextualizing Field and teachers who are required to be active agents in the Pedagogic Recontextualizing Field.

Kat Chu: Teachers did not finish making that Evaluation Scale in the end. We did not follow this up. Because at that time, we wanted to do a case study, you know? However, because time is limited

and the City Inspector did not intend to participate in the teaching and research activity [note: meaning the evaluation scale as part of the research activity] we just focused on preparing for one special class that he definitely intended to observe.

Researcher: When you raised this task for teachers, what was your hope?

Kat Chu: One was the basis of research. I hoped to see feedback on the [development of] students' emotions.

Researcher: When teachers tried to do it, did you expect what they would do?

Kat Chu: There must be a discussion and guidance. I assigned them to study and learn some information related to the making of the evaluation scale.

Researcher: How should they learn?

Kat Chu: There is some stuff. I gave them some resources and materials, which is Yong Huo Cui's books, who is from East China Normal University, a specialist on classroom observation. And his students from the university came and did some lectures for us. I showed teachers some scale forms that others developed. I showed them all [referring to teachers in the school I observed]. I told them to learn and then based on others' examples, they can design a scale on the basis of our theme.

Researcher: So you had certain expectations. Teachers cannot just do it themselves following their own thoughts.

Kat Chu: Yeah, yeah, yeah. It was a pity that it was not completed in the end.

Researcher: Will you continue doing it with teachers?

Kat Chu: Shanghai municipal authority is doing this thing, but it is a bit hard to push it down [to teachers]. Because the development of the evaluation scale form needs to meet a scientific standard, and you need a team to walk in the class and observe, yet the recording and noting ability in the team is different. So it is a problem of whether the noting and recording is scientific or true. It is a questionable matter. Considering all these difficulties, to carry on making the scale form is hard. It's mainly a lack of professionalism.