Interpreting PE Teachers' Personal Theories of Learning using Interpretive Phenomenological Analysis (IPA): A case study in a non-selective school in the South East of England.

By

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Thesis submitted for the Degree of

Doctor of Philosophy

2022

Abstract

Background:

Given that teachers *raison d'etre* is to help their students learn, it might to be assumed that their theories about humans learn would be well researched. However, other than (Tann, 1993; Senden and Roberts, 1998 and Tsai, 2002) who studied student teachers, there has been very little empirical research into how teachers theorise learning.

Methodology: This research employed an approach based in interpretivist phenomenology. Understanding is gained through the researcher's involvement with the research process and the research is phenomenological as it represents the participants' consciousness and interpretive because the analysis depends on the researcher's perspective. The data was generated through the use of three interviews with each participant.

Research site and Participants: The research took place at 'Northview' Academy which is a non-selective secondary school in the South East of England consisting of approximately 1000 pupils from the ages of 11–19. The participants were four teachers (two male and two female) who were all members of the Physical Education (PE) department and had been teaching at the school for at least three years.

Findings: The participating teachers in this study did not have a strong discourse of learning to draw upon. Their theories learning existed principally as implicit theories and exhibited considerable nuance. Teaching was sometimes described in terms of developing competence but also, implicitly, they spoke in terms of competence being revealed. There was an assumption that learning was subject to 'discursive consciousness', suggesting that notions of tacit knowledge were less prominent in their consciousness. 'Progress' formed a significant part of the participants' discourse but often, it was described as a matter of value in its own right rather than making progress 'in' learning something in physical education.

It is argued that this research has implications for Initial Teacher Education; Teachers' continuing professional Development and educational policy makers.

Acknowledgements

Glossary

Term	Definition
Authenticity	Heidegger argued that *Dasein,* is a person 'being in the world' is for the most part a process of people taking the world for granted and in this we live 'inauthentically'. When Dasein no longer takes the world for granted we are said to be 'authentic' (Langdridge, 2007).
Bracketing	*See epoche*
Care	This is Heidegger's idea that 'being in the world' means that we are involved in our world. We are actively engaged with things and other people. There will be times when we are not so fully in this mode of concern such as when we are tired, bored or daydreaming (Langdridge, 2007; Mulhall, 2013).
Consciousness	We are sentient beings and receive sensory input from the world which we are 'conscious' of. Consciousness seems central to mental states but much of what we are conscious of lies at the periphery of our awareness. Hence, we can hold implicit theories (Rosenthal).
Constructivism	Constructivism is a theory about learning that assumes that in order to learn the learner builds cognitive structures to make sense of the world (Bennet and Dunne, 1995)
Dasien	Dasein is a German word famously used by Martin Heidegger in his magnum opus Being and Time, which generally translates to being, i.e. being in its ontological and philosophical sense (Moran, 2000). The key idea here is that people don't 'have' *Dasien* but 'are' *Dasien*. (Mulhall, 2013).
Das man	Like many of Heidegger's terms there is no direct translation into English. Dasien is fascinated and absorbed in the world. However, we are with other beings like ourselves. In effect 'das man' is other people and Heidegger uses it to express the idea of many people in public and this can mean that the person can be anonymous.
Discourse	A discourse refers to a set of meanings, metaphors, representations, images, stories, statements and so on that in some way together produce a particular version of events. (Burr, 2003). For Heidegger discourse was the way that meaning in the world is manifested for *Dasein* (Guignon, 2008).
Discourse analysis	Discourse analysis (DA), or discourse studies, is a general term for a number of approaches to analyzing written, spoken, signed language use or any significant semiotic event (Willig, 2001).
Eidetic	The eidetic reduction is defined as a process by which the philosopher moves from the consciousness of an individual to seek to establish an essence or 'shape' of the thing.
Epoche	Epochè is an ancient Greek term which, in its philosophical usage, describes the theoretical moment where all judgments about the existence of the external world, and consequently all action in the world, are suspended. This idea belongs more to the descriptive phenomenologists rather than the later interpretivist ones who did not feel the observer can be 'objective'.

Facticity	Heidegger felt that we are 'thrown into a world that predates us and limits or shapes the possibilities we have of being. Therefore, 'facticity' is what is 'given' to us in our situation such as our language and the environment (Langdridge, 2007).
Habitus	This is an idea developed by sociologist Bourdieu (1973) which argues that a persons 'habitus' is the social and cultural circumstances in which a person lives and inform what is deemed valuable in that environment.
Ideography	Ideographic research is concerned with seeing how a phenomenon is experienced in a particular case or cases. There is no intention to assume that the sample represents a wider population
Implicit theory	Refers to the constructions about the world that people hold which are not readily accessible to their conscious awareness. It has been argued that most of our knowledge is tacit and revealed in context (Claxton, 1984)
Intentionality	Refers to the idea that all consciousness is directed at something in the world. In phenomenology it is assumed that we are always consciousness of 'something' in our world.
Intersubjectivity	This is defined as the nature of the relationships between people in the world. Heidegger (1962) rejected traditional notions of intersubjectivity as he said they charactered the self as an isolated being. Rather he argued that the person is defined by a fundamental sociality expressed by an immersion in shared public norms and roles.
Life world	Life world is a term developed by Husserl (1931) and is used by phenomenologists to describe the world as concretely lived. Experience is the focus which means the meanings that people attribute to these concrete experiences is what is prioritised.
Meaning system	This is the idea that as they live people develop beliefs that organise their world and give meaning to their experiences (Dweck, 1999).
Natural attitude	Everyday way of seeing or being in the world where we are immersed in the world and, for the most part, it just flows past us. An unreflected view of the world (Zahavi, 2019).
Noema	The noema is not the real object but the phenomenon, not the trees but the appearance of the trees. It is what it is that is experienced.
Noesis	Refers to the way that the phenomenon is experienced.
Nomothetic	Nomothetic research generates data with a stratified sample and the assumption is that any findings can be readily generalised to a wider population (Cohen and Manion, 2018)
Ontological	*Philosophy* the branch of metaphysics that deals with the nature of being. Phenomenology has a deep concern with ontology.
Paradigm	A set of assumptions, concepts, values, and practices that constitutes a way of viewing reality for the community that shares them, especially in an intellectual discipline.

Performative/ performativity	Within the current policy landscape Stephen Ball (2003) calls performativity "a culture or a system of terror". It is enormously stressful, requiring not only consistently sound performance from a teacher but also massive energy proving it (emotional pressures, pace intensification, changed social relationships, paperwork, record-keeping, surveillance and hierarchies).
Personal theory	This is the idea that people develop internal models of reality, called *constructs* in order to understand and explain the world around them in the same way that scientists develop theories. Like scientists, they develop these constructs based on observation and experimentation. Constructs thus start as unstable conjecture, changing and stabilizing as more experience and proof is gained (Claxton, 1984'; Dweck, 1999).
Phenomenology	Phenomenology is the study of human experience and the ways that the world appears to people's consciousness. This is known as the focus being on people's perceptions of the world or their perception of things as they appear to the person.
Phenomenological attitude	This refers to the idea that for the most part we live our lives and take much for granted.
Qualia	In philosophy of mind qualia are the singular items of subjective experience. It is a term to describe the 'way that things appear' to each individual (Feser, 2005).
Reflexivity	Reflexivity refers to the process in which the researcher are conscious of and reflective about the ways in which their questions, methods and subject position might impact on the knowledge developed in all stages of the research process (Gough, 2003).
Schema	An internal representation of the world; an organization of concepts and actions that can be revised by new information about the world.

Contents

Tables, Figures, Models and Diagrams

Chapter 1 Introduction

1.1 The Context

The principal purpose of teaching is to enable children to learn and so how teachers understand the process of human learning is manifestly important. In recent times learning has become a high-profile topic in public consciousness, not only for professionals and students involved in disciplines such as psychology, pedagogy and education, but also in political and economic contexts (Illeris, 2009). In educational policy in the UK, there has been considerable interest in learning with policies such as, 'The Learning age – a renaissance for a new Britain' (Dfes, 1998); The report of the Teaching and Learning in 2020, Review Group (Dfe, 2006) and 'Apprenticeships, Skills and Learning Bill' (Dfe, 2009). Despite the interest in learning it seems that there are concerns that learning has actually become marginalised in the culture of some educational settings.

> "The word 'learning' seems to be used more and more frequently nowadays, but on closer examination it is often the case that something else is being talked about. If we look closely at school life, it can be that there is very little talk of learning. There are many 'initiatives' which claim to be about learning, but their focus is somewhere else." (Watkins, 2003: 4)

In research carried out in four schools in the UK, Lodge (2001) concluded that the dominant discourses employed in the settings were of 'work' and 'performance' and that they reflected meagre views of learning which did not seem to encourage an understanding of effective learning. She also claimed that there was a richer discourse of learning but that it was harder to find than the others. This lack of a discourse of learning is a central theme of this research and it is argued that the participants in this study had what can best be described as a 'reduced' discourse of learning to draw upon. So, it seems that while ostensibly there is an interest in learning at policy level, the lived experience of children and teachers in school does not necessarily reflect this. It should be said that the focus on learning has not been universally welcomed. Biesta (2010) coined the term 'learnification' by which he meant that there has been a shift, in formal education, from teaching to learning and that discussions about the aims and purposes of education have become

increasingly peripheral. His concern was that this might lead to teaching being seen in an overly pragmatic manner with education becoming more of a means to develop human capital (Olssen, et al. 2004; Garratt and Forrester, 2012) and less about producing citizens (Howie, 2009).

The relationship between teaching and learning is complex (Loughran, 2013) because it should not be seen that teaching 'causes learning' or even that teaching necessarily stimulates the learner in any way.

> "It is not the case that the occurrence of learning necessarily implies that teaching has taken place, and conversely, it is not the case that engaging in teaching necessarily implies that anyone has learned" (Green, 1998: 140).

Nevertheless, it is to be expected that through professional practice, teachers will have developed theories about how children learn that they use, in part at least, to underpin their teaching. Teachers' theories of learning might be expected to be highly congruent with established disciplinary theories of learning or they may be more idiosyncratic and exist more as 'folk theories' or 'lay theories'. In seeking to distinguish between lay theories and more formal theories, Furnham (1988) proposed that:

> "Lay theories are often implicit rather than explicit, with tacit, non-specified assumptions or axioms. On the other hand, some scientific theories are *formal* in the sense that they are set in an internally consistent manner" (Furnham, 1988: 3).

Furnham goes on to say that because they are rarely presented formally, lay theories are often ambiguous, incoherent and inconsistent.

In a time when political intervention in educational policy is high (Forrester and Garratt, 2016), it is instructive to consider how 'learning' 'theory' and learning theory appear in recent government policy texts.

	Theory	Learning	Learning theory
The Importance of Teaching (2010) White Paper	2	46	0
Teacher standards 2011 (updated 2013)	0	7	0
The Carter report into teacher education (January 2015)	13	69	0
Educational Excellence Everywhere. (White Paper March 2016)	0	26	0
the teacher standards for professional development (July 2016)	1	7	0

Table 1.1 Summary of times that 'theory', 'learning' and 'learning theory' appear in selected educational policy documents.

It should be borne in mind that the social construction of teachers comes from multiple sources each with their own perspectives and demands. These include external influences (such as the media and literature), 'insider' influences from academics and teachers, and the localised construction of the role by teachers in response to parents and pupils. In addition, there are the formal modes of checking accountability such as Ofsted. Each of these heterogeneous groups will have different expectations of the teacher's *raison d'etre*, thus positioning the teacher in a contested space where there are many pressures on their identity and it can be hard for them to develop into autonomous professionals. In occupying a socially constructed role, the teacher also exists within a policy context where, "notions of marketization, commodification, competition, privatisation and generally making public sector providers responsive to their consumers" (Smyth and Shacklock, 1998: 116) necessarily influence their practices. Within such a professional arena where the teacher is subject to a "relentless flow of performativities" (Ball, 2003), it is possible that the teacher may believe that it is acceptable that an understanding of how children learn is subordinate in the hierarchy of their *performance demands*.

It is against this backdrop that the PE teacher practices, navigating their way between the demands of a society locked in a 'crisis discourse' (Stronach and MacLure, 1997; Furedi, 2005) of childhood obesity, concern over hypokinetic diseases which have informed the PE National Curriculum, the requirements of Government policy (such

as developing physical competence, cognitive capabilities and life style choices) and the personal beliefs that PE teachers bring with them into the profession (Green, 2003).

It has been suggested that teachers' beliefs about learning will affect their teaching practices (Kagan, 1992; Fang, 1996). However, this argument has been shown to be insufficient; Dweck et al. (1995) make the case that personal theories enable people to interpret their world but that any related actions might be based on alternative assumptions. For example, a PE teacher might have the belief that high levels of practice time are essential in learning, but then employ strategies where the practice time for children is limited.

Previous empirical studies into teachers' theories of learning have employed quantitative nomothetic methods where it is assumed that stratified sampling leads to ready generalisability. They have rarely focused on the more subjective aspects of how teachers understand the underpinning principles of what they are enacting when they teach. Furthermore, there are no studies of PE teachers that undertake an in-depth exploration of teachers' personal theories of learning using a qualitative approach. In this research the approach will be based in interpretive phenomenology which, "… aims to gain an understanding of how participants view and experience their world" (Willig, 2001: 66). This research brings together phenomenology, ideography and hermeneutics to enable unique interpretations to be made about the participating PE teachers' theories of learning.

In developing research questions qualitative research projects often identify the process, object or entity (Willig, 2001). Hence in this research the overarching question is to use interpretive phenomenological analysis (IPA) to interpret the participating teachers' personal theories of learning.

> Research questions in IPA projects are usually framed broadly and openly. There is no attempt to test a predetermined hypothesis of the researcher; rather, the aim is to explore, flexibly and in detail, an area of concern (Smith and Osborn, 2007: 55).

Smith et al. (2009) recommend having secondary questions that can only be addressed at the interpretive stage of the process. In this research those questions

correspond to chapters 8-10 where the questions themselves emerged in the process of analysis. The secondary questions being: Interpreting the participants theories of learning from the ways they understood the aims of the subject; from the way that they 'constructed' their students and from their theories of teaching.

1.2 The Conceptual Framework

The intention of this thesis is to investigate four physical education teachers' personal theories of learning. At the time the field work was undertaken (January 2016-June 2019) all 4 teachers were in post at the same secondary school in the South of England. Underpinning this thesis is the idea that *theory* is an explanation of phenomenon in the world. "The principles that constitute a theory must indeed be scientifically acceptable, and they must explain phenomena." (Cortina, 2016: 1142). It should also be the case that theories are not confused with dogma (Bannister and Francella, 1986) and so evolve over time. Therefore, any theoretical explanation should be viewed as provisional "…. treat them as problematic, as open to reconstruction" (Carr and Kemmis, 1986).

It follows then that seeking explanations for how humans learn is an important project and in particular has ramifications for teachers and students but it should not be assumed that the theory does any more than 'explain'. To seek to establish why the participants' theories about learning as they do would require a different approach. Therefore, the interpretations made about the teachers' theories of learning must be seen as their explanations for how they feel learning happens.

The final point here is that theory is *disinterested* in the sense that it makes no difference to the phenomenon it seeks to explain. This research is seeking to make interpretations about how the participating teachers understand how the children in their classes learn. It is assumed that much of this knowledge cannot be 'recalled to order' (Glenny, 1998) but exists as tacit knowledge and therefore, an approach that recognises this is important. The argument made in this research is that interpretive phenomenology is a highly appropriate methodology because the assumption is that phenomenology is about, "...the study of human experience and the way that things are perceived as they appear to consciousness" (Langdridge, 2007: 10). Because what is sought is the participants' subjective view of their world, there has to be a process of social mediation (Pring, 2000) and so the research interview is the

research tool of choice. Furthermore, as it is likely that this research will involve tacit knowledge, a phenomenological approach has much to offer, as in such a world view, it is assumed that language and consciousness are closely related. "Consciousness does not constitute language it appropriates it" (Baldwin, 2004: 202). This means that consciousness takes language for its own use and that what is said, is reflective of the speaker's consciousness which is likely to exceed their awareness. The empirical design provided the participants with three inter-related but discrete opportunities to articulate their thinking in relation to how they felt that their students learned.

1.3 The structure of the thesis

In Chapter 2 a discussion of the nature of learning reveals the conflicting theoretical perspectives that have evolved in modern times. The chapter critically evaluates the efficacy of each theory in explaining how learning happens in humans. Reflecting on what is learned and how it is learned, it is argued that learning must always be about *somebody* learning *something* (Marton and Tsui, 2004). In this chapter the learner is located within a cultural and temporal context as inquisitive and meaning-seeking where learning is understood to be a form of transformation of experience. In this chapter it is argued that many of the established theories of learning are insufficient as they assume that the learner inhabits the world and develops 'inner' mental constructions that enable them make sense of that world. This is described as an inductive explanation, whereas a more existentialist explanation would be that it is more probable that the learner cannot make sense of the world without living in it. Therefore, learning is an embodied process.

In Chapter 3 the key themes that emerged in Chapter 2 in relation to learning, are developed by locating them within the specific discourses of learning in PE. A consideration of the history of PE in Western formal education provides the backdrop for the analysis of PE as a social construction. The subject is considered in terms of global discourses such as the relationship between 'PE' and 'sport' and PE and health. In this chapter national debates that inform curriculum development in PE are examined. These include physical literacy, physical cultures and subject hegemonies, narrowing to a consideration of the PE curriculum as a site for compromise, trade-off and social reproduction. The claims that the PE profession make for what children can learn through the subject are examined in order to contextualise the empirical

findings of this research. In this way, the interpretation of the participants' theories about learning in PE can be critically analysed.

Chapter 4 builds upon the nature of learning from Chapter 2 and the contextualised nature of learning in PE presented in Chapter 3. The chapter introduces the field of personal theories in which it is argued that personal theories draw on a broad range of influences such as beliefs, notions of truth, knowledge and personal theories as folk theories. As phenomenology is defined as a philosophy of consciousness, this chapter offers a definition of consciousness in relation to personal theories. PE teachers' personal theories of learning are thus understood within a discourse of the nature of consciousness which has been influenced by a consideration of learning in the subject and by the broader consideration of the nature of learning in Chapter 2.

Chapters 2, 3 and 4 comprise the first section of the thesis in that they present the corpus of knowledge in relation to learning, learning in PE and teachers' personal theories of learning.

The epistemological premise that anchors this thesis is presented in Chapter 5, where the tension between transcendental and existential phenomenology is explored. The rationale for employing a method rooted in existential phenomenology is advanced and provides the conceptual framework within which this thesis is designed.

In Chapter 6 the rationale for case study is presented including a description of the research site, justification for the sample, introduction to the participants and the application of ethical indicators to this study. Interpretative Phenomenological Analysis (IPA) requires the researcher to adopt a particular role and this specific IPA approach is presented in this chapter. Comprehensive data sets and the approach to data analysis are set out in the final sections of this chapter.

Chapters 5 and 6 therefore, comprise the second section of the thesis and they present the methodological principles and rationale for the approach used in this study.

Chapter 7 acts as an introduction findings section. In this chapter it is argued that the participants' personal theories of learning existed in their consciousness as espoused theories and implicit theories. It is also claimed that their theories were nuanced. These are key themes that inform the remaining three chapters. There is a third more

tentative interpretation that in phenomenological terms their theories tend to exist as representations of inauthenticity. That is to say their world is for the most part, 'taken for granted.'

In chapter 8 the participants conceptions about the aims of the subject are presented. The idea here is that learning is about somebody learning something and so how that something appears in consciousness is of significance. The chapter participants perspectives are presented under the themes of developing personal and social qualities, health and fitness and Knowledge skills and progress.

In chapter 9 the idea that the *somebody* who is doing the learning is taken as significant. Therefore, in chapter 9 how the participants' constructed the students that they taught is considered under the themes of 'the good student; motivation to learn; entity and incremental perspectives and the class viewed as a homogenous group.

The final chapter in the findings section, chapter 10, considers how the participants' spoke about teaching as a way to interpret their theories of learning. This chapter is organised using the themes of the relationship between teaching and learning'; conceptions of teaching, learning and understanding and theories of teaching which assume learning is visible and rational.

Chapters 7, 8, 9, and 10 comprise the third section of the thesis, where four dominant emergent themes are presented and interpreted.

Finally, Chapter 11 draws out the key findings from this study and identifies implications for the fields of PE, Initial Teacher Education (ITE) and Continuing Professional Development (CPD).

As such, the thesis is structured in three sections:

Section 1: Setting out the theoretical background (Chapters 2, 3, 4)

Section 2: The methodological principles and rationale (Chapters 5, 6)

Section 3: The findings and implications (Chapters 7, 8, 9, 10)

Section 1 The theoretical background

Chapter 2 – Theorising human learning

Chapter 3 – Learning in PE

Chapter 4 – Personal theories of learning

Introduction to section 1

This research is about making interpretations of the participating teachers' personal theories of learning using a methodology based in interpretative phenomenology. In order to establish the theoretical terrain, in section 1 of the thesis there are three chapters, each of which focus on the three theoretical areas in which this thesis is based.

In chapter 2 an overview of learning theory is presented. The chapter opens with a consideration of how theory in this thesis is understood. The field of learning theory is then organised into three chronological waves, and the efficacy of each group in explaining human learning is considered.

In employing a phenomenological approach, it is assumed that learning is about *somebody* learning *something* (Marton and Tsui, 2004) and in this case it is Physical Education (PE). Therefore, in chapter 3 an overview of how PE can be understood is presented. In addition, the claims for the benefits of PE, pedagogies associated with

PE and the PE curriculum in the UK, are considered in order to provide a subject specific context for this research.

In chapter 4 the field of personal theories will be considered. It has been proposed that a personal theory is an abstract cognitive representation that an individual forms and then uses to organize their experiences in order to help them make sense of the world. Research into this area has taken different forms. Nicolls (1992) and Barger and Linnenbrink- Garcia (2017) looked at decision making; Usher (2016) at abilities; Dweck and Leggett (1988) and Schommer (990) researched notions of intelligence. It is argued that personal theories can create a broad system of meaning (Molden & Dweck, 2006) that individuals use to make sense of the complexities of their worlds. In this chapter the detail of personal theories will be examined through the lens of interpretive phenomenology in order to establish key theoretical parameters.

Chapter 2 Theorising human learning

2.1 Introduction

This research is seeking to make interpretations about the participating teachers' theories of learning. This research is being carried out using an interpretive phenomenological approach where it is assumed that the teachers will have been 'thrown' into a particular context and time where there will be all manner of features that 'predate' them (Heidegger, 1962). This means that the participants' consciousness is situated in a context where there are established practical necessities and particular attitudes which will serve to shape how they understand that context. In this research it is assumed that the scholarship on learning theories forms part of the theoretical frame that can be used to locate the interpretations of the field work in this research. It should also be viewed as part of the contextual milieu that 'predates' the participants.

In this chapter, the nature of theory employed in learning theory will be examined and then the field of learning theories will be considered in terms of their efficacy to explain how human beings learn. The theories of learning will be presented in three broadly chronological themes. First, the behaviourist theories; second, what will be termed 'inductive theories' and third, theories of learning that draw on embodied perspectives. The critical analysis will be framed by Engestrom's (2009) claim that any theory of learning must answer four central questions. (1) who are the subjects of learning- how are they defined and located? (2) Why do they learn -what makes them make the effort? (3) What do they learn- what are the contents and outcomes of learning? (4) How do they learn- what are the key actions or processes of learning?

2.2. Towards a definition of 'theory' in learning theory

Over time theory has come to be an important aspect of academic work as it is a systematic way of understanding events, behaviours and /or situations. In academic terms theory can be understood as an independent conceptual frame that seeks to offer an explanation about a particular phenomenon. In most cases this theorising can

be seen as the accumulation of thinking by a community of scholars over a period of time.

> "Theories are widely viewed as a coherent system of connected concepts, sometimes lying within one or more perspectives. They may be used to interpret, explain or more normatively, to prescribe what should be done to improve an aspect of the social world..." (Poulson and Wallace, 2004; 13)

In reflecting on theory in science, it has been proposed that the aims of science are, "..understanding, prediction and control above the levels achieved by unaided common sense" (Allport, 1947; 63). Central to this is the idea that the phenomenon the theory seeks to explain will exist regardless of how the theory seeks to explain it. Hence, the phenomenon is necessarily independent of the theory and so the phenomenon is *disinterested* in how it is theorised. An example of this would be the rise and fall of the tides which will occur regardless of how it is explained or theorised. In this way theory can be summarised as, "…. a set of statements or principles devised to explain a group of facts of phenomenon" (Gray and MacBlain, 2012; 3). Similar to this perspective is that of (Stanovich, 1992: 21) who defined theory in an educational psychological context as, "an integrated statement of principles that attempts to explain a phenomenon and make predictions."

If theory is an explanation, then it follows that, to some extent, all theory is incomplete or partial. This is because in order to explain, theory has to simplify and so in the process of its formulation it may ignore elements that later turn out to be important. Theory is also incomplete and partial because reality changes over time and so things that could not have been predicted, when the early versions of the theory were formulated, may at a later date have to be taken into consideration (Claxton, 1984).

Human academic learning has evolved within various academic communities, each of which have their own ways of seeing the world and each of which, has developed customs and practices about what is viewed as valuable and acceptable. This is very important as it means that any theory will reflect assumptions about the epistemology of that community (Bednar et al., 1992) and in this way theory can be

seen as not only offering an explanation of a phenomenon but that it will also take a particular world view or 'perspective'. These 'ways of seeing', belonging to particular academic communities, are sometimes referred to as disciplines (Goodson, 2003). The term 'discipline', when applied in this way, is not uncontested but can be seen as a, "…technical term for particular organisations of learning and the systematic production of new knowledge" (Krishnan, 2009: 8). However, such theorising should not be viewed as exclusively concerned with producing generalised 'overarching' explanations. Partly as a result of dissatisfaction with the monolithic nature of the big disciplinary theories, there came the emergence of alternative disciplines such as Personal Construct Psychology (PCP). Here, the point of departure for theorising was to begin with the individual and trying to establish their construing (Kelly, 1969; Bannister and Fransella, 1986). The idea that people develop beliefs that help them make sense of their worlds was later defined as 'self-theories' by Dweck (1999) and has also been referred to as 'personal theories' (Fox,1983; Claxton, 1984; Tann, 1993; Sendan and Roberts, 1998).

As the capacity to learn has been viewed as a defining feature of what it is to be human, there has been a high level of interest in developing theories to explain it. These theories have tended to be situated principally in a psychological discipline although in recent times, there have been a number of significant developments which have occurred in different disciplinary fields. One of the emerging fields; neuro-science, has developed understandings about the brain that may have profound implications for education at all stages. For example, the discovery that the adult brain is almost as malleable as a child's in that it can change to meet new circumstances (Blakemore and Frith, 2006) and a developing knowledge about memory (Zheng and Gardner, 2019) have implications for educators. Nevertheless, this research is not at the point where it can necessarily make direct applications to teachers' practices (Blakemore and Frith, 2006). What does seem to have happened is that it has given rise to a number of educational initiatives such as left and right brain learning, male and female brains, Visual, Kinaesthetic and Auditory (VAK) and Brian Gym. Many of these ideas gained enthusiastic, if somewhat ephemeral support in some educational contexts and sceptics have termed them as 'neuro myths' (Geake, 2008). Another development has been that of learning as being deeply situated in the social situations in which it occurs and the idea that meaning, understanding and learning are all

defined relative to context of the actions and not to self-contained structures (Lave and Wenger, 1991; Wenger, 1998). In this way learning is viewed as being a matter of authentic inclusion in a particular setting.

As human learning is multifaceted it makes sense that to develop better theories about it requires a multi-disciplinary approach. "The *how* of learning cannot be comprehended through a single theoretical lens" (Jonassen, 2009; 14). In considering theories of learning it is important to bear in mind, that like any other theory they exist in a provisional state. Indeed, there is much that is metaphorical about the language used to describe learning and it can be seen that concepts such as 'constructivism' and the 'zone of proximal development' are metaphorical in nature. In searching for a comprehensive theory of human learning, Jarvis (2006) concludes that one does not exist and so for learning theory to exist in a highly metaphorical state, is understandable. This idea of learning theory being provisional is well illustrated by Bronowski (1978), who in thinking about how science develops, referred to the process of learning about science, being one where progress can be represented by a move from metaphor to algorithm. To illustrate this, he cites Newton's line of thinking which went from seeing the moon as a ball that had been thrown around the Earth, a somewhat crude metaphor, to developing an algorithm that sought to calculate the orbit of the moon around the Earth. Given that, it is significant that despite years of study our understanding of how learning happens in humans resides in Bronowski's terms, more in the metaphorical than the algorithmic, which of course is in itself is a metaphor!

This research was carried out using a phenomenological approach. Phenomenology is a philosophy of consciousness and assumes that the only real world is the one given to us through perception (Husserl, 1931 a) an idea he referred to as 'Lifeworld'. This thesis is based on the idea that while there is a rich history of theorising about how humans learn that has evolved in disciplines, there is comparatively little empirical research into teachers' personal theories of learning and this field will be reviewed in chapter 4.

It should be noted that over time there has been a good deal of seepage between theories that explain how humans learn and their application to teaching. Hence there are publications such as 'Constructivist teaching in Science' (So, 2002);

'Constructivist Approach to Learning. (Bhattacharjee, 2015); Teaching the Primary Curriculum for Constructive learning' (Littledyke and Huxford (Eds), 1998). What appears to have happened is that a concept, in this case constructivism, which started as a way to explain learning, has been re-appropriated and presented as a theory of teaching. Of course, it makes sense that if constructivism is widely seen as a good explanation of how humans learn then teachers might be well advised to base their practice on those principles. The point being that the relationship between theories of learning and theories of teaching should not be taken as given:

> "This analysis confuses constructivism as a theory of learning (which emphasises cognitive activity during learning) and constructivism as a prescription for instruction (which emphasises behavioural activity during learning)" (Mayer, 2009: 185).

2.3 Behaviourist theories of learning

The first wave of learning theory emerged as a product of the rational scientific focus of the enlightenment (Jarvis et al., 2003). It was developed by a number of researchers [notably, Pavlov (1928); Watson (1928) and Skinner (1985)] who tended to operate principally in a psychological discipline and much of their research was carried out with animals. Pavlov assumed that the dog in his laboratory did not need to learn to salivate when it saw food but that this was innate. He then saw that the dog would salivate when the Lab assistant came into the space. As it was the assistant usually brought the food Pavlov assumed, quite understandably, that the dog had developed an association between seeing the assistant and salivating.

The behaviourists carried out a good deal of their research with animals and this may be seen as an obvious limitation when seeking to develop theories of how humans learn. However, this group of theories are important as they set the scene for much of the research that followed. It is also worth noting that while we now have better explanations of how learning happens in humans, some of our thinking about learning, and the assumptions that we make, can be located within notions of behaviourism.

The Behaviourists developed the idea that in order to learn, a learner develops a bond between the stimulus and the response, and as such, they might be more accurately

called associative theories (Atkinson, 1996). When seeking to explain how learning happens in humans, there are a number of problems with such a theory, one of which is that it assumes that humans have little agency in their responses. However, it might be argued that some of the strategies we use as parents and teachers are in line with such thinking. For example, the teacher who requests 'hands up' before children are allowed to speak - then only speaks to children who do have their hand up - might be seen to be employing a strategy in line with a Behaviourist theory of learning. When teachers ask children to take their coats off when they enter the classroom and then reward the children who do so, with a team point, they are presumably hoping that the reward will strengthen the link between the desired behaviour and the particular situation. This can be explained as the teacher employing strategies that implicitly, are based on Behaviourism. However, in each of those examples the same learning could be explained in a different way. The act of rewarding children with more tangible rewards such as team point for taking their coats off when they come into the classroom could be explained by the child wanting to please the teacher. The child might have worked out that team points are desirable and that taking her coat off without being asked gets a team point that has becomes meaningful and so easier for her to remember. It might be that the classroom evokes memories of being asked to remove the coat and she wishes to avoid being noticed by the teacher for such a transgression. The key here is that the child is getting better at removing her coat and that her learning of this is not necessarily connected to the theory of how this learning happened. The theory merely seeks to explain and is not 'involved'.

Behaviourist learning theory assumes that a link develops between the learner and the object of learning and as such, there is a simplicity that is appealing. Much of the criticism of Behaviourism as a theory to explain learning, centres on its inability to accommodate reflective and affective dimensions of learning. Indeed, the behaviourist Watson himself had asserted that:

> "…. consciousness is neither a definite nor a usable concept. The behaviourist, who has been trained as an experimentalist, holds further, that belief in the existence of consciousness goes back to the ancient days of superstition and magic". (Watson, 1928: 2)

Another weakness with behaviourism is that it can lead to a conflation of observable actions with learning:

'...behaviourism maintains that statements about the mind and mental states turn out, after analysis, to be statements that describe a person's actual and potential public behaviour' (Maslin, 2001: 106).

This highlights two significant weaknesses with Behaviourism as a theory to explain human learning. First, it denies the possibility that one might have private thoughts but choose not to disclose them (Jarvis, 2006). A related limitation of Behaviourist theories is that they presume that there will be a strong correlation between learning and behaviour. It follows then that such theories tend to marginalise the possibility that a person might learn something but choose not to adapt their behaviour. Behaviourism does not account for the possibility that the process of developing mastery of an activity might hold a deep intrinsic appeal or that it engenders a love of learning a particular thing (Winch, 1998). Although it might be argued that primary school children can develop a deep love of gaining team points and that Pavlov's dog 'loved' the food that was put out for him. It is also quite possible that school children will want their teachers to think well of them and therefore compliance with rules that produce warm and supportive responses from their teachers, seems likely to be motivation in itself for some children however, that is not to say that the resulting behaviours can be adequately explained by an associative theory such as behaviourism. A second weakness is that there is an assumption that learning is congruent with what can be seen in 'public' whereas a better explanation of the relationship between actions and learning is that actions are visible, and therefore, learning can be inferred (Swann, 1999 b). However, if human learning is an embodied process, then emotion will inevitably be an intrinsic factor (Damasio,1994; 2000; Winch, 1998; Gee, 2008). It is also the case that the stimulus-response model of the conscious human act, or the cognitive act, ignored the functional coordinated nature of the cognitive event. Dewey (1896) reasoned that we do not, indeed, have a stimulus without the response that defines it as such, just as we cannot have a response without its correlate, the stimulus. For example, in a PE context in basketball, a child in possession of the ball might execute a jab step if the defender steps in too close. The act of the defender stepping in too close can be seen as the

stimulus and the jab step as the response. However, the response of the jab step also serves to define the stimulus, the defender coming in too close.

The final segment of this section is devoted to considering behaviourist theories in the light of Engestrom's 4 questions.

- *Who are the subjects of learning- how are they defined and located?* It seems that for the most part the learner is absent in these theories. The explanation is essentially a simple one and either the learners are assumed to be homogenous or the theory is not able to accommodate them.
- *Why do they learn-what makes them make the effort?* This leads on from the previous point. As there is no real recognition of the learner there is not acknowledgement of their motivation to learn. Motivation is either assumed to be present or deemed not to matter.
- *What do they learn- what are the contents and outcomes of learning?* The content of learning is not acknowledged. The explanation for learning in such theories often includes examples and then concepts such as 'repetition', 'reinforcement' and rewards are used as part of the rationale.
- *How do they learn- what are the key actions or processes of learning?* In essence, such theories assume that a bond develops between the stimulus and the response. When this bond is strong then it is assumed that, when presented with the stimulus, the learner will make the 'correct' response.

When using Engestrom's 4 questions it is clear that behaviourism as a theory to explain human learning has limitations. There is no acknowledgement of the learner or their motivation to learn. Furthermore, the content of what is to be learned is not taken into consideration. The main focus of the theory is on the process which assumes a rather crude form of association developing. However, such theories are important as they present a basis for the next wave of theories and also provide language about learning that we still use today with terms such as 'reinforcement' and 'reward'.

2.4 Inductive theories of learning Introduction to *Dasien*

A dissatisfaction with the behaviourist theories led to the development of a range of theories that have been grouped here as 'Inductive learning theories' but might also

be referred to as cognitive theories. These theories include constructivism; social learning theory and experiential theories. The assumption is that their explanations of learning are all built on from behaviourism. It is important to recognise that cognitive theories of learning exhibit high levels of heterogeneity, and can be seen to serve as explanations of both how we learn and how we think (Winch, 1998). Piaget's work (1973) was significant as he developed the notion that learning involved the learner actively 'constructing' knowledge about the world. He proposed that learning cannot be 'given' to the learner, but that in order to learn, the learner needs to actively engage with what is to be learned in order to build knowledge and in effect, 'discover' things for themselves. This means that 'knowledge' cannot exist as a tangible entity but is 'constructed' by the learner. Piaget saw cognitive growth as a biological, age related, developmental process and he assumed that its progress could be charted in a generally steady incremental nature (Wood, 1988). Bruner (1986), on the other hand, saw it more in terms of fits and starts. However, the key concept here is that both theories take the position that it is the learner who makes sense of their environment and the inputs they experience, by constructing links with their prior knowledge.

Within the cognitive theories of learning there is an assumption that the construction of the internal mental structure is an active intellectual process involving the generation, checking and restructuring of ideas in the light of those already held. Construction of meaning becomes a continuous process and this view of learning is often referred to as 'constructivist' (Bennet and Dunne, 1995; Twomey-Fosnot, 1996). Piaget posited the idea that the child was a 'lone scientist', who, he suggested, actively hypothesises about the world and then constructs meaning in the light of experience. He also set great store by biological age although it is important not to conflate cognitive and biological processes of development. Piaget's work was carried out exclusively with young children, which may be seen as a limitation. If cognitive development is a natural process, then it can be argued that the relationship between the learner and their life world would be insignificant (Jarvis, 2006) and this seems a difficult position to sustain. In this 'Life world' is a term that was developed in the early days of phenomenology and was used by Husserl to describe, "the only real world, the one that is actually given through perception" (Zelic, 2007; 413). This led to a more explicit acknowledgement of the social aspect of

learning. In building on Piaget's work, Vygotsky (1978) suggested that language and working with a more knowledgeable other were fundamental to developing cognition, and while he accepted that learning was related to age, he did not see it as at all dependent on it. Vygotsky argued that the role of the local culture and the presence of a knowledgeable other were crucial to support the learner beyond their existing state of competence. He argued that cultural tools are crucial in this. By 'cultural tools' he was referring to aspects such as the language available to the learner and the memories of the social exchanges in that community. He described the idea of taking the learner to the 'next stage' as the 'zone of proximal development'. This notion of a 'zone of proximal development' is very tempting as it seems very logical and even kindly. There is some decision made about where the learner is and it is decided what might come next and then the teacher helps the learner cross that 'zone'. However, while this simple metaphor is persuasive it is not without its limitations. For example, how much does a person need to know about particular content before they can learn more about it? There is also the question of how the next steps are decided. While scaffolding is a tempting metaphor it assumes a line of travel and may therefore be seen as a form of high teacher control or even an authoritarian way of thinking about learning (Illeris, 2004) but it is one which is widely espoused and upon which some of the most globally influential early years practice is built. The work of the Stockholm Institute and Reggio Emilia in Northern Italy have this model as their cornerstone:

> "According to Piagetian and post-Piagetian genetic epistemology, knowledge is an on-going construction that the individual develops by processing and organizing the information he perceives while acting within and on the surrounding reality" (Ceppi and Zini, 1998: 7).

Other theories in this theme are those such as Bandura's social learning theory and Kolb's (1984) experiential theory of learning. Experiential theories of learning have a long history and has many well-known adherents such as Dewey (1896) and Lewin (1946) . Kolb's model can be seen to represent the classic perspectives. The learner is assumed to have had a concrete experience; they then reflect on this; there is a process of abstract conceptualisation of theory building and then this is tested in an empirical manner. The cycle is then assumed to repeat.

It is also the case that while they do this in different ways, these theories make the same three assumptions.

Learning theory	Central tenets of the theory
Constructivism	Constructivism's central idea is that human learning is constructed by the learner who in the process of learning builds new knowledge upon the foundation of previous learning. This prior knowledge influences what new or modified knowledge an individual will construct from new learning experiences (Phillips, 1995).
Social learning theory- Bandura	That the learner can learn new information and behaviours by watching and interacting with other people. Internal mental states are vital and as a result of the observations and interactions the learner is assumed to have developed mental organisations to make sense of the social interactions. This theory recognises that just because something has been learned it does not necessarily follow that there will be a change of behaviour. Assumes that the learner is aware and rational.
Experiential learning- Kolb (1984)	Is represented by a four-stage learning cycle. It is assumed that the learner has a concrete experience; they observe and reflect on this; this leads to abstract conceptualising and finally the learner tries out what they have learned. This leads into the next cycle and a new concrete experience. Assumes that the learner is aware and rational.

Table 2.1 Summary of inductive learning theories

The first assumption is that learning is a process of induction. The assumption would be that the learner observes the world, sees patterns and then constructs a tentative hypothesis or theory that is then modified in the light of further experience. In an inductive explanation the premises provide evidence for the conclusions (Bailey, 2000; Swann, 2012). This can be summarised by saying that the premises are providing evidence for the conclusions which is a classic form of induction. In a theory such as constructivism the theory explains learning by assuming that the experience (premises) leads to the construction of a schema.

The second assumption moves onto a form of dualism. The assumption that the process of learning involves an 'inner' mental organisation about an outer world is problematic as it points to a dualism. In philosophy, a dualism describes the view that there can be two mutually irreducible substances. In education 'theory' and practice'

are often presented as dualism although there are those who would say that they are just two perspectives on the same thing (Pring, 2000) and as such exist in a monist relationship. In this case the notion would be that every theory requires some form of practical application and that every person undertaking anything practical will have some idea of how they will approach it. Even though their theory about how to do it may lie beyond ready articulation and is only revealed in the act of doing. In this instance the inductive theories all assume the separation between the 'outer world' and the 'inner mind' and this can be seen as a dualism. Descartes concluded that as we are cognisant of our thoughts, that this awareness is directed inwards. Hence, "I think therefore I am". A better way to express this of course might be, "I am therefore I think". (Langdridge, 2007). The alternative position is to say that our consciousness is directed at the world and so there is no separation. "We must not, therefore, wonder whether we really perceive the world, we must instead say the world is what we perceive." (1962, xvi). Here Merleau-Ponty is saying that, in effect, our only choice is to perceive the world as the one which we have been 'thrown' into. The dividing line between the 'outer world' and the 'inner' construction has to disappear and, "The world is constituted as an internal relation between them." (Marton and Booth, 1997: 13). In this way there can be no sense of the world being constructed by the learner nor is it imposed on them. The world is constituted as a relationship between the learner and their world.

> "Our consciousness is consciousness of things other than itself and any 'inward turn' of our gaze must inevitably find itself back in the one and only 'outer' world therefore. Phenomenology reveals that there is no inner world in any substantive sense." (Crossley, 2001: 47)

Crossley illustrates this point by talking about peoples' worries not being about things in their head but are actually about events that are happening in their world.

The third assumption is that these theories presuppose that we are aware of our consciousness and that we operate in the world as rational beings. For example, in Kolbs' (1984) theory it is assumed that the person learns from their mistakes and naturally tries something else or adjusts what they did in the light of their rational perspective on their experience. This is a problem because we might learn from our mistakes but we could also learn from our successes. It might even be that what

constitutes 'success' in learning is highly subjective. More importantly though, it assumes that a person operates in the world as a detached and rational agent and has the motivation to learn from these mistakes. Lakoff and Johnson (1999) argue that reason is not disembodied but arises from the nature of our brains, bodies and bodily experiences.

In the field of embodied cognition Lakoff and Johnson (1999: 5) claim that, "Real human beings are not, for the most part, in conscious control of – or even consciously aware of – their reasoning." They also make the point that reason is not disembodied but arises from the nature of our brains, bodies and bodily experience. In this way it is hard to reconcile inductive theories of learning to the person as a phenomenological subject.

In considering the fundamental nature of being, Heidegger (1962) developed a particular phenomenological perspective. He argued that we are *Dasien* which literally means 'there being' and what he meant was that we exist in a time and place. It is not that we 'have' *Dasien* it is that we are *Dasien*. The subject is always in a time and place and interacting with others participating in something. It follows then that every action comes from how *Dasien* comports itself (Mulhall, 2013). Everything around the person touches their lives and to be meaningful it has to have some social significance. In this research when the participants are asked a question such as what they see as the aims of educational assessment, they are disclosing what they feel they are able to disclose at that moment and they are assumed to be drawing on what they deem to be socially significant in their context. The other point to make here is that Heidegger argues that for the most part, we live in an inauthentic manner. By this he meant that *Dasien* does not distinguish between herself and the world in which she is immersed. She carries on with everyday habits and 'just does' as she is lost in the everydayness and to use Heidegger's term 'follows the chatter'. It is only when something acts to disrupt this that we might become aware of our own 'not being'. An example of this would be the sculptor who uses tools such as a chisel and a rasp. Those tools become an extension of the sculptor, however, if they break then suddenly the sculptor is lost and has a moment of awareness which Heidegger describes as an authentic state (Langdridge, 2007). In the authentic state we no longer take the world for granted and might live more for ourselves. The point here is that the kind of rational subject that is envisaged by the inductive theories is

problematic, particularly when taking a phenomenological world view. This is because the subject is assumed to be immersed in the activity of the moment and that there is no separation between the cognitive and the emotional (Damasio, 2010).

The final part of this section is to consider inductive theories in the light of Engestrom's 4 questions.

- *who are the subjects of learning- how are they defined and located?* It seems that for the most part, as with the behaviourist theories that the learner is absent. In each of the theories the explanation is essentially a simple one and either the learners are assumed to be homogenous or the theory is not able to accommodate them.
- *Why do they learn-what makes them make the effort?* As with behaviourism motivation to learn is either assumed to be present or as it is not recognised deemed not to matter.
- *What do they learn- what are the contents and outcomes of learning?* The content of learning is not really acknowledged.
- *How do they learn- what are the key actions or processes of learning?* Each of the inductive theories assume that the learner has an experience and then as a result of this they are responsible for creating a mental structure. The presumption being that this will help them make sense of the world in the future. In this way the process is an inductive one. It is also the case that there is an acceptance of an 'inner mind' and an 'outer world' which can be constructed as a false dualism.

2.5 Embodied theories

The genesis of human learning as being embodied can be traced back to the work of John Dewey (1938). Dewey was an influential thinker and advocate for the benefits of a properly constructed progressive education which was fully engaged with the tensions of merging a focus on personal growth and wider societal development. In seeking to develop from the inductive theories which tend to assume that learning is purely a mental act, explanations that were based more in an embodied perspective have been developed. Descartes had seen the mind as a subjective consciousness

which contained ideas that corresponded with the world. This view of the mind as representing the world was contested by Brentano (1973) who promoted the idea of intentionality. Brentano argued that all mental states are *of* or *about* something in the world and he proposed that mental states have a reference to a content or direction towards an object. In developing a more embodied theory of learning it is important to consider three prominent aspects of scholarship on embodied cognition. The first point to make is that the mind is inherently embodied, and this means that most thought is unconscious (Lakoff and Johnson, 1999; Dennett, 1991). Lakoff and Johnson (1999) refer to the unconscious as the 'hidden hand' and argue that this shapes much conscious thought. This has implications for researching personal theories as it is likely that some of the participants' theories will not be readily accessible. Second, for the most part people do not live in the world as dispassionate subjects but are emotionally engaged. It is the case that many decisions we make are based on emotion as much as logical reasoning. In researching the reasons people vote (Westen, 2007) argues that people's political brain is an emotional brain. It is not a dispassionate calculating machine objectively searching for the right facts, figures and policies. He argues that most of the time our emotions provide a reasonable compass for guiding behaviour. He also sends a message to politicians saying that, "We can't change the structure of the political brain but we can change the way we appeal to it" (Westen, 2007: xv). If follows that our engagement with the world is not limited to the cognitive domain, we need to recognise that a large part of our interest in the world is emotional, practical, aesthetic and imaginative (Stoltz, 2015).

> "The implications here are significant because such a position implies that there no longer exists a philosophical division between the object and subject because the world begins from the 'phenomenal body' and provides the means through which we can develop a sense of our own identity that is integral to coming to know the world through the experience of our embodiment that has serious ramifications concerning the act of learning (Merleau-Ponty, 1962, 2004)." (Stoltz, 2015: 478).

Stoltz is making the case that from an embodied perspective, that we know the world using all our senses and that has implications for how we learn and of course any theory that seeks to offer an explanation for how we learn, must acknowledge this.

> "By using the term embodied we mean to highlight two points: first that cognition depends upon the kinds of experience that comes from having a body with various sensorimotor capabilities, and second, that these individual sensorimotor capacities are themselves embedded in a more encompassing biological, psychological and cultural context."

> (Varela et al., 1991: 172-173)

The third point is the nature of embodiment which is the idea that the world is inseparable from the subject. For Merleau-Ponty (1962) embodiment has a double sense as it encompasses both the body as a lived, experiential structure and the body as the context or milieu of cognitive mechanisms (xvi). In this way he conceptualised the person as operating in the world as what Heidegger (1962) referred to as, a single unit of experiencing. It is proposed here that the 'inner mind' 'outer world' separation has given the message that learning happens in the mind. That is to say, 'learning' in theory is often portrayed as a primarily cognitive activity, whereas there is a strong case to say that it is the 'whole' person who learns (Illeris, 2007; Jarvis, 2006). The focus of learning theory on the cognitive is problematic as it separates the person from the social and also assumes that we can have separate mind and brain states (Jarvis, 2006). This is particularly important when considering learning in what might be deemed as more practical areas such as PE, Music and Art where, to say that learning occurs 'in the head', ignores the importance of practical 'craft' skills which are related to the cognitive but not reducible to it. In essence, the Cartesian Dualism presents a version of reality where consciousness is an inner space in which things happen and a space which the individual alone, has access. Ryle (1990) and the phenomenologists argue that by contrast, consciousness is a relationship to the external world whose 'contents' consist precisely in the contents of that world. A person does not look inside themselves and find consciousness and perceptions. Consciousness has to be a consciousness *of* something in the world as in effect a person's consciousness is simply their sensuous relationship to the world (Crossley, 2001; Rosenthal, 2005).

In this, Crossley (2001) is developing the concept of 'intentionality' which is the idea that what we are conscious of is the world we live in and in effect, there is no 'internal world' as our consciousness is always *of* something in the 'outer world'.

In the following section a theoretical model of learning presented by Illeris (2009) will be examined in terms of embodiment and also in how it matches up to Engestrom's 4 questions.

Illeris (2009) proposes that there are two basic processes and three dimensions of learning (Fig 1,1).
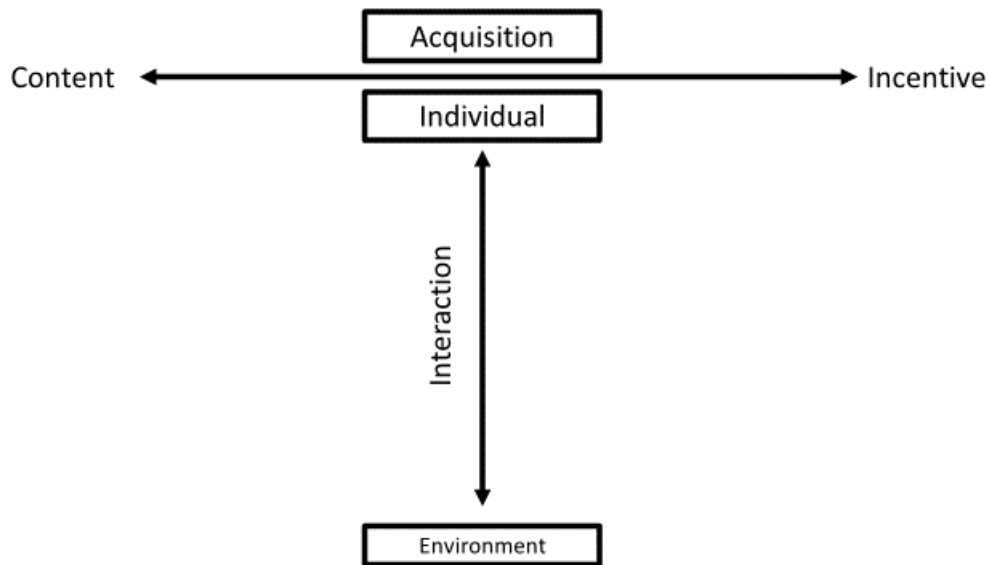
Figure 2.1 The fundamental processes of learning - Illeris (2009)

Illeris proposes that the processes of learning are the interaction between the environment and the learner. This can be read in a phenomenological manner as the learner is 'thrown' into a particular environment and then interacts with that environment- the environment being the place and the people and the cultures. In this way Illeris is conceptualising the processes in an embodied manner. The individual is existing in the environment and it may be that many of these interactions are carried out in an almost automatic fashion, with much taken much for granted. Heidegger (1962) referred to this as 'following the chatter'. In Illeris's model the learner and the environment are essential factors. In addition, Illeris includes what he refers to as, the psychological acquisition process. He argues that there is interplay between the content of learning and the incentive of providing the energy that runs the process. The double arrows in the figure 2.1 indicate that the functions are involved in an integrated manner in that they are assumed to be acting on each other.

This can be illustrated taking an example from PE. A Year 8 girl is in a class learning through Athletics. The class are organised into groups of 3 and the focus of the lesson is to develop sustained running. The children have to mark out a course of about 80 metres. They then run one lap at a pace they think they could sustain for longer. One child runs the lap, one child times them and the third child records the time. The next step is to see if they can run multiples of that. For example, a child who runs one lap in 24 seconds might then try to do 2 laps in 48 seconds. The idea being that they gradually increase the distance they run or the speed but that this is under their control. The children are finding what they can do and also setting themselves challenges. There are also many possibilities for the group to help and encourage each other.

If this sequence of tasks is applied to Illeris's model we can see that the environment is the teacher, the teacher approach, the space and place of the lesson and the other children in the class. If things go well the child will interact with all of those in a positive manner. Then crucially there is the lesson content which, in this case, is athletics but it is presented in a way that means the child has agency should they choose to use it. The incentive would hopefully be that the child enjoys working in a group; feels comfortable setting their own goals and that greater autonomy leads to improved self-efficacy. Perhaps they will also learn to enjoy the sensation of running and the feelings of pushing themselves and perhaps seeing an improvement. Also, that overcoming challenges they have set themselves as opposed to challenges from outside. The teacher, freed from taking an instructor role, has the verbal space to be able to interact with the class and talk to the children about learning. It must be emphasised here that this example is presented with a view to exemplify how a knowledge of embodied learning might be used to underpin teaching.

In applying Engestom's 4 questions to the Illeris model it can be seen that there is a better match than for waves 1 and 2.

- *who are the subjects of learning- how are they defined and located?* In this theoretical model the child is at the centre of the transactions. The dynamic nature of the model recognises that the learner is both shaped by the environment and the content and also has the possibility to shape the environment.

- *Why do they learn-what makes them make the effort?* In this model the incentive dimension is one of the key elements of the model. It makes it clear that the learner must provide the energy to learn. This is presented as an interaction with the environment and the content.

- *What do they learn- what are the contents and outcomes of learning?* The content of learning is one of the key dimensions in this model. The assumption is that this does make a difference. The difference could be in the expectations of how the child sees the value of the content although this should not be seen as fixed.

- *How do they learn- what are the key actions or processes of learning?* In this model the key learning process is the interaction. Illeris proposes that the key to learning is the interaction between the processes and dimensions.

The final task here, is to take three of the characteristics of embodiment and apply them to Illeris's model. The first is that of thought being mostly unconscious. Illeris does draw on notions of consciousness but he does not locate this in terms of awareness.

> Thus, through everyday consciousness we control our own learning and non-learning in a manner that seldom involves any direct positioning while simultaneously involving a massive defence of the already acquired understandings and, in the final analysis, our very identity. (Illeris, 2003: 403).

What he is saying here is that our consciousness acts as a control that might be seen as a kind of gatekeeping to involvement, very much in line with Claxton's (1996) idea of engaging with learning as a cost benefit analysis. He is also saying here that we might see the disequilibrium associated with new learning as a threat and so refers to a 'massive defence'. He is also saying that learning is about identity and so we can infer he is taking an embodied perspective. Later in the paper he says,

> ….and only when it thematizes such functions as learning defence, everyday consciousness and mental resistance, can learning theory become an adequate tool in relation to adult educational and learning practice today (Illeris, 2003: 404).

In this, Illeris is making the case that consciousness refers to an 'everyday' which can be read as the everyday immersion that often occurs in a 'taken for granted manner'.

Such a mode of existence is referred to in phenomenology as the 'natural attitude' (Zahavi, 2019). Heidegger (1998) spoke about people 'falling away from themselves in the world' by which he meant that many of our daily activities appear obvious and are taken for granted. As a result, much of what is closest to us is most invisible to us (Dahlberg, Et al.,2008).

The second point is that the embodied person is assumed to be an emotional person. Illeris (2003) makes the point that emotion is central to learning. He claims:

> Secondly, that all learning includes three dimensions, namely, the cognitive dimension of knowledge and skills, the emotional dimension of feelings and motivation, and the social dimension of communication and cooperation—all of which are embedded in a societally situated context. (Illeris, 2003: 396).

Illeris makes the point that the emotional dimension has equal status with other factors in his model and that this can be envisaged as a relationship that is reciprocal. The various factors acting on each other. He underlines this later by saying,

> Further, it is a process of integrated interplay between two equal psychological functions involved in any learning, namely the function of cognition, dealing with the learning content, and the emotional or psychodynamic function, providing the necessary mental energy of the process. (Illeris, 2003: 398).

Here he makes the point that the emotional state 'provides' the energy for learning. Finally, he argues that learning is 'obsessed' by the emotions.

> Therefore, all cognitive learning is, so to speak, 'obsessed' by the emotions at stake—e.g. whether the learning is driven by desire, interest, necessity or compulsion. (Illeris, 2003: 401)

The final point is that in an embodied perspective the 'inner mind' 'outer world' world-subject separation is dissolved. This is not explicitly developed by Illeris. However, Marton and Booth (1997) advance this point in some detail. On the matter of this they claim:

> The world is not constructed by the learner, nor is it imposed upon her; it is constituted as an internal relation between them. There is only one world but it

is a world that we experience, a world in which we live, a world that is ours (Marton and Booth, 1997: 13).

Here we have the position that the 'inner mind' 'outer world' dualism is dissolved by constructing both as essential dimensions of existence. We are in a world that is there for us to be conscious of but that world is not separate it is the world we inhabit (Merleau-Ponty, 1962). Therefore, any embodied theory of learning must recognise this.

2. 6 Theories of human learning - Conclusions

The purpose of this chapter was not to provide a comprehensive review of learning theory but to provide the reader with a background that is sufficient to map the findings in this research. The central idea in this chapter is that the field of learning theory has been subjected to scrutiny with the intention of considering the theories in terms of their efficacy to explain human learning. It has been proposed that we can see learning theories as belonging to one of three waves. Behavourism, inductive theories and embodied theories. These waves are in chronological order and seek to build on the weaknesses of the previous wave. An important tool of analysis was Engestrom's 4 questions.

In terms of question 1, 'who is learning' it seems clear that in the first 2 waves the learner is mostly absent. The subjects of learning are assumed to be a homogenous group who we can deduce are motivated to learn, learn from their errors and are aware of their mental processes. This is not a sustainable position as it is much more likely that people are deeply heterogenous; emotional beings who often don't learn from their mistakes and for much of the time are not aware of their mental processes but are immersed in the process of existence. What can be said is that the embodied theories seem to be an improvement as the subjective person is accounted for.

The second question addresses 'why do they learn'. As was highlighted in the response to question 1, it appears that for the most part, motivation is taken as a given, especially in the first 2 waves. This does not take into account that the person learning is a subjective being who might not find some of the required learning very appealing. This predisposition should not be seen as fixed. It is likely that strength of motivation will wax and wane. Claxton (1996) highlights this as an issue for teachers

and conceptualises the issue as a cost benefit analysis. The suggestion being that at some level of consciousness, the child is weighing up the potential benefits of engagement with the cost to them. The idea then is that part of the teacher's role it to try and persuade, cajole and encourage children to feel that there is something in mastery of particular content for them. An embodied perspective seems to have more credence as the subjective person is acknowledged.

The third question is about what is to be learned. This is a key focus and for this study will be examined in some detail in chapter 3. It seems that in the first 2 waves the content of learning is not recognised nor is there much space for considering differences in content. It appears that there is a default setting that learning is primarily a mental act. The embodied perspective seems to offer more as it takes account of the person existing as a single unit of experiencing and therefore there is an assumption that learning involves the whole-body.

The final question concerns the learning process. In the first 2 waves the process is the central focus. In wave 1 it is assumed a bond forms between the learner and the response to a stimulus. In the inductive theories, that the learner has an experience and forms some kind of mental organisation. This seems to support the idea that there is an 'inner mind' and an 'outer' world. The embodied theories address this by assuming that there is no distinction and what the learner experiences *is* the world.

In chapter 3 PE as a subject context for learning will be examined with a view to establishing a subject specific context for the research.

Chapter 3 – Learning in Physical Education

3.1 - Learning in Physical Education Introduction

This is a study that is seeking to make interpretations about PE teachers' theories of learning. In Chapter 2, disciplinary theories of learning were considered in order to reveal conflicting perspectives in relation to their efficacy in explaining how humans learn. In that chapter it was argued that all human learning is best explained using embodied theories because they are able to accommodate concepts such as, most thought being unconscious and the learner being viewed as an emotional subject. In taking a phenomenological view of learning it is assumed that learning is always about *somebody* learning *something* (Marton and Tsui, 2004). It also follows that the person will be learning in a particular time and place. Heidegger (1962) claimed what we must ask the meaning of existence and saw the person as *Dasein* which means 'being there' or existing. It must be stressed that it is not that we 'have' *Dasein* but that we are *Dasein*. It follows then that *Dasein* will be present in the midst of the various other entities in that context making sense of the interactions in a deeply personal manner. The phenomenological argument would be that the person operates in the environment and becomes immersed in it and that there are no subjects or objects, there is only the experience of the ongoing task. In thinking about learning this is important as it is saying that when we live, we are caught up in the environment and as learning is a part of existing, learning is a matter of how we exist. To use a PE example, a Year 5 child responding to a stimulus in a dance lesson, is moving and reacting along with the other children in his group. His world *is* the dance lesson and he exists in that situation, in that time and place.

In this chapter, a brief history of curriculum PE will be given and then the policy background will be examined. Following this, an examination of the claims of what

can be learned in PE will be considered under the themes identified by Bailey et al. (2009) of physical competence, social learning, affective learning and cognitive learning. The purpose of this is to draw the reader's attention to salient points that may help situate the participants theories of learning.

Underpinning this chapter are five themes. The first theme is that of convergence and divergence. If the purposes of learning are expressed as being the acquisition of a specific set of skills, then they can be said to be convergent. If the aims are expressed more in terms of principles which invite heterogenous and divergent outcomes then they are said to be divergent. The second theme is of learning to play sport or education *through sport*. Learning to play sport can be seen as convergent and technical, education through sport more child centred and divergent. The third theme is that of the nature of practical knowledge. It is argued here, that PE is naturally concerned with practical knowledge and this is characterised by being beyond discursive consciousness (O'Loughlin, 2006). The fourth theme is that of hegemony. This occurs on a macro scale with the privileging of propositional knowledge over practical knowledge. However, on a micro scale there is also a hegemony occurring between the 4 domains of PE with the more visible and performance aspects being privileged over the less visible and less measurable aspects such as social learning. The fifth and final theme is that of taking a technical or a 'lifeworld' perspective. Habermas (2010) proposed that people have a vested interest in predicting and controlling the natural environment. This, he saw as the province of the natural sciences where phenomenon can be observed and measured. The life world is viewed as the subjective world of social experience and related to the enlightenment view of the individual using their own senses. The argument then, has been that in the project of modernisation, the lifeworld has been colonised by the technical world.

3.2 - Learning in PE: the policy context

From the Butler Education Act (1944) until the 1980s education in the UK was left very much to its own devices. The government would fund the local Education Authorities (LEA) who in turn, managed the schools in their area. A growing dissatisfaction, especially among some right-wing politicians (Whitty, 2005) led to the public services being 'modernised' by employing practices that before this, had been the province of the private sector. These practices were based on free market capitalism and in essence, involved minimal government, market fundamentalism

and acceptance of inequality (Giddens, 1998). In 1988, the conservative government of the time passed the 1988 Education Reform Act (ERA). This did a number of things and in particular, gave the secretary of state over 400 extras powers (Chitty, 2004: Brighouse, 2011). This heralded an era where there were high levels of political intervention which still apply today and also have crossed governments of differing types. The ERA (1988) provided the impulse for the National Curriculum which for PE, came on line in 1992. Since then, the NC has undergone 4 major revisions (1994-95; 1997-1999; 2007-2008; 2012-2014). In considering who sets the PE agenda, policy makers have tended to have seen PE as 'sport in school' (Lockwood, 2000) and publications such as *Sport: Raising the Game* (DNH, 1995), *Labour's Sporting Nation* (Labour Party, 1996) and *England, the Sporting Nation: A strategy (*English Sports Council, 1997) tend to support this perspective. A prominent feature has been the shift to PE as a matter of learning sporting techniques, which in a sense has been supported by the discourses in the early versions of the National Curriculum (NC) (Houlihan, 1991). In the period from 2000 to the start of the Coalition government in 2010 there was a wave of Specialist Sports Colleges which is significant as it should be noted that there were no Specialist 'Physical Education' Colleges. Their brief was based on 6 main ideas. To extend the range of opportunities available to pupils which best meet their needs and interests; to raise standards of teaching and learning in the specialist subjects; to raise standards of achievement for all their pupils of all abilities; to develop within the schools characteristics which signal their changed identity and which reflect the school's aims; to benefit other schools and the wider community and to strengthen the links between schools and private and charitable sponsors. The specialist schools initiative came to an end in 2010 with the end of New Labour and the election of a coalition government in the UK.

It can be seen that over the years the PE curriculum has been informed by a sporting focus. The publication of the Education Reform Act (1988) that saw the advent of the National Curriculum, brought significant changes to the state sector in the UK:

> "The ERA therefore established a highly technical and technicist language for the curriculum. This formed a discursive framework, effectively defining how teachers and all others concerned with education were now to think, talk and describe practice and performance in schools" (Penny and Evans, 1999: 5).

The sporting discourse is very much to the fore in the latest iteration of the NC for PE. Of the 4 aims, two are located in a sporting discourse. First, is the proposal that children should 'engage in competitive sports and activities'. This suggests that children cannot be considered to be physically educated if they have focussed on Dance and Outdoor education. Then there is the notion of 'excelling' in a broad range of physical activities. This can be read in two ways. First in a norm-referenced manner in which case, there is an assumption that education is a zero-sum game. Or this might be that to 'excel' is to be the best you can be and borrowing from the idea of self-actualisation.

Aims
The national curriculum for physical education aims to ensure that all pupils: - develop competence to excel in a broad range of physical activities   - are physically active for sustained periods of time   - engage in competitive sports and activities   - lead healthy, active lives   Dfe September (2013)

Table 3.1 Summary of National Curriculum aims 2013

This neo-liberal ideology can be constructed as one with an economic focus (Baron, 2018) which had many side effects. The resulting inequalities led to the formation of a group of people in society who Standing (2011) referred to as the 'precariat'. By this he meant that they were people who lacked any of the kinds of security afforded to the professional classes such as representation security, possessing a collective voice in the labour market and employment security which means a protection against arbitrary dismissal. Hence their existence was 'precarious'. This is important as it has been established that learning is about someone learning something and Kirk (2020) makes the point that many PE teachers will be teaching children who are existing in that kind of precarious manner. This will inevitably affect how they see themselves and also how they view schools.

Another side effect of neo-liberalism was the emergence of what Zuboff (2019) refers to as the age of surveillance capitalism. In this, she argues that surveillance capitalism (SC) unilaterally claims human experience as free raw material for translation into behavioural data. In education this manifested itself in the

emergence of a government enforcing QUANGO, the Office for standards in Education (Ofsted) where school reports are published 'on-line' and the explicit message is that this is a matter of transparency. Ball, (2003) referred to this as a government sponsored process of naming and shaming. This raises the question of the importance teachers give to the project of improving their position in the school performance tables. The next question is how congruent the project of moving up the performance table is with educating the children in their classes. There is also the idea that when a child's work is marked and they get a grade, that grade is often then placed in a larger data set. That is used as way to 'track' the child's performance and also as a way to 'measure' teacher effectiveness. In PE this might be seen as similar to publishing the results of class fitness testing.

The final element of neo-liberalism to be considered here, is performativity. Ball (2008) argues that performativity is a policy 'technology' that is designed to change the meaning of practice and social relationships. The values of the project of education shift from being a 'social good' to an 'economic good' (Furlong, 2008). In such a milieu, the worth of a person is related to their performance. High performing teachers are worth more than low performing ones. Children who perform well and get high grades are a signifier of value to the school and can help the school gain a better place in the school performance tables. Learning, itself, is subject to commodification and more learning is deemed better than less learning and there is less space for the meaning of what is learned. The worth of the person is what they can 'perform'. In terms of teachers' working lives, this is manifested by teacher performance management observation of lessons, 'work scrutiny' and checking on teachers' performance. This tends to be framed in aspects that can be readily observed. In many ways this is congruent with the kinds of technical rationalism Schon (1987 in Fish, 1995) sought to counter with his model of professional artistry. In this, the teacher is assumed to embrace uncertainty; sees education as intrinsically worthwhile; theorises from practice; uses interpretations and appreciation to think about teaching and sees that, which is most easily fixed, visible and measurable, as mostly trivial. It also assumes that teaching belongs to what Habermas (1988) described as the 'technical' *manmade* world. In this, Habermas was arguing that in many situations people need to be able to control and predict the natural environment. Inquiry in this field requires a mode of research and

knowledge-production that relies on observation and measurement in order to produce testable general explanations. The question then, of course, is the extent to which this is an appropriate way to understand learning in school.

The significance being, that if the assumption is that the person is a single unit of experiencing then context matters and so the importance that the participants give to the policy landscape is a significant dimension of this research.

3.3 - Learning in PE: Overview

Physical Education and Sport, in their various forms, have a long history in Western formal education (Tinning, 2010) and the justification for its inclusion in the school curriculum has resided in three principal ideas. First, notions of health and the concept that exercise is seen to be a part of a good education. Second, that it is a site for the development of personal and moral qualities such as determination, character development and moral aspects such as embracing the idea of 'fair play'. Third, the development of physical competence which is manifested in the activities chosen which are deemed to be culturally valuable in a time and place. It is important to note that a different emphasis has been placed on each one at different times. In the early to mid-nineteenth century, English public schools developed strong traditions of games playing and athletic achievement which became known as 'athleticism' (Mangan, 1981). This period saw the emergence of games which, especially in the public schools, were viewed as a powerful force in developing moral, social and cultural values (Dixon, et al., 1957; McIntosh, 1968). This tradition inspired Newbolt's (1892) poem *Vitae Lampada* which was suggesting that attitudes forged on the playing fields of England were crucial in fighting battles abroad as the Captain in the poem, exhorts his soldiers to 'play up and play the game' even as they are facing a battle where the enemy are in a much superior position.

During the twentieth century, alongside the emergence of the Welfare State, came a growth in state education where PE/ Sport enjoyed an unchallenged place in the curriculum (Kirk, 1992). However, whilst its place within the curriculum was secure, the focus was on the development of physical capital (Bourdieu in Shilling, 1993) with little consideration for the development of intellectual capital (Reid, 1996). In the post war period, whilst its place on the curriculum was unchallenged, the practical knowledge that defined the subject, placed it in a sub-ordinate position to other

subjects whose primary concern was with intellectual development (Kirk, 1992). This idea of a subject hegemony is important as it might be expected to colour how the participants in this study see the status of their subject. What should be noted at this point is that in their survey of PE in 167 countries, Hardman and Marshall (2000) found that while there was widespread support by governments for PE in policy, there was often a lack of commitment to resourcing it.

In seeking to define PE it is worth considering what we know about how teachers, themselves, see the subject. In his sociological study of PE teachers on PE teaching, Green (2003) concluded that PE teachers subscribe to a variety of perspectives that he termed 'ideologies'. In his research he identified the ideologies of health; sport and 'traditional' team games; academic ideology; a re-emergence of health ideology; 'Education for leisure'. 'Sport for all' and the 'New PE'; 'Sport Education' and the 'valued cultural practice' of sport; and what he saw as the resurfacing of the sporting ideology. In reflecting on his findings, Green (2003) concluded that PE teachers' views on the nature of their subject are often far from philosophical. In this, it is assumed that he takes philosophy as being abstract, detached, and rational. Rather, he sees them as being ideological and made up of what he describes as, in some cases, almost 'mythical ideas' about physical education. The range of ideologies Green (2003) identified in his study may be seen as representative of a profession that is rich in heritage and has eclectic influences, which supports Kirk's assertion that the field (PE) is 'conflict ridden' (2010: 12).

The idea that the curriculum reflects underlying hegemonies is well established (Apple, 1990) and is a motif that occurred following the Educational Reform Act (1988) which gave rise to the National Curriculum. In this PE was designated as a 'foundation' subject rather than a 'core' subject which can be seen as related to the 'epistemic value of subjects' (Winch, 2012). Over time, the main purpose of PE has been characterised by a concern with the "regulation of bodies" (Armour, 1999: 5) rather than the "education of pupils' embodiment" (Armour, 1999: 5). This can be seen to be related to the hegemonies associated with the privileging of intellectual knowledge over physical competence which for PE, may have been challenged by the emergence of examinations in PE in the 1980s. This was also mirrored by the

growth of higher education level study in sport at the same time (Green, 2008). This theme is explored in more detail in section 3.2.5.

The aims of the subject have long been contested and arriving at a definitive definition of PE has given rise to much discussion. One of the debates has centred on the differences between 'Sport' and 'Physical Education' (Murdoch, 1989; Bailey, 2005; Kay, 2005). In exploring these differences, Murdoch (1989), did not offer to resolve the issue but proposed a number of relationships. She positioned Sport and PE as opposites, as in sequence and as integrated which, in effect, enables us to view them on a continuum. It needs to be borne in mind that in many parts of the world the term 'physical education' is barely recognised (Hardman and Marshall, 2000), yet is the term most widely used in the UK to represent the taught curriculum of physical activity.

In presenting a review of the evidence for the benefits claimed by PE, Bailey et al. (2009) combine PE and School Sport (PESS) as a means to resolve the PE/ Sport question:

> "We ought to acknowledge from the outset that our decision to use the phrase 'physical education and school sport' (abbreviated as 'PESS' throughout this review) was not taken lightly. The language of our subject is a conceptual and ideological minefield, and articles continue to be published arguing about the relationships that might or might not exist between 'physical education', 'sport', 'physical activity', and so on" (Bailey et al., 2009: 1).

In seeking to define PE it is worth noting that it is a subject that, with Religious Education (RE), is one of the few that routinely include the word 'education' in their title. This might be seen as a reflection of the collective insecurities PE teachers feel about the worth of the subject (McNamee, 2005) or as a claim that the subject has educational worth that goes beyond the immediacy of taking part in sport. Terms such as 'physically able' and 'physically educated' focus on the body as an object and position it in a functional way in terms of what it can do in a sporting context. In an attempt to move to a more embodied perspective, Whitehead (2001; 2010), proposed the concept of 'physical literacy':

> "Physical literacy from a phenomenological perspective is a far broader term and includes aspects concerned with being able to perceive intelligently and respond appropriately" (Whitehead, 2001: 128).

In referring to 'broader', Whitehead is suggesting that physical literacy takes a wider and more embodied position than that which is implied by simply 'Physical Education' or the notion of being 'physically educated'. In her work, Whitehead takes a deeply monist and embodied perspective, rejecting any suggestion that there are mind body dualisms at work. Related to this, it has been argued that the practices traditionally associated with physical education, often position bodies as objects, and then movement becomes an instrumental outcome of practice (Wright, 2000: 35). At this point it is worth pausing to consider that state education post Education Reform Act (1988) is best described in instrumental terms with the educational outcomes being aims at producing citizens who are independent, resilient, are enthusiastic about the free market and being entrepreneurial. Of course, this runs counter to the idea of a liberal education where education was deemed to be an education for its own sake and a matter of personal enrichment.

If the claim of physical literacy is that it extends the conceptual understanding of PE, a further perspective is offered by Kirk (2010), who proposes the notion of 'Physical Culture'. This concept foregrounds the cultural backdrop, which, Kirk argues, is an inseparable dimension of the body in the physical world, and in this way, advances Whitehead's notion of Physical Literacy:

> "An important feature of the concept of physical culture is that it counteracts the tendency in physical education to consider only or mainly the body in nature (the biological and mechanical body) and to ignore or dismiss as irrelevant the body in culture (the signifying and symbolising body). The notion of physical culture proposes that the human body is in nature and culture simultaneously, and that neither can be reduced to the other" (Kirk, 2010: 99).

In terms of definitions of PE, Alderson and Crutchley observed that there appeared to be no professional consensus regarding what being 'physically educated means or how it might be achieved' (1990: 40) and these uncertainties continue to be articulated:

> "The fact that the Qualifications and Curriculum Authority (QCA, 2005) saw fit to ask the question 'what is the purpose of physical education in the school curriculum?' more than a decade on from the introduction of the National Curriculum for PE (NCPE) in England and Wales, illustrates the persistent and enduring lack of uncertainty surrounding the nature and purposes of PE" (Green, 2008: 7).

There is clearly a lack of consensus within and between various interested groups (scholars, teachers and policy makers) in terms of definitions, aims and purpose of PE. What is less clear is how these ideologies of PE might affect teachers' personal theories of learning and, in turn, the extent to which ideologies about the purpose of the subject and their personal theories of learning might inform their teaching.

3.4 - Learning to be Physically competent in PE

3.4.1 Physical competence: Introduction:
It seems self-evident that physical education will seek to develop physical competence. In a review of the educational benefits for PE this is highlighted. "Unsurprisingly, perhaps, there is suggestive evidence of a distinctive role for Physical Education and School Sport (PESS) in the acquisition and development of children's movement skills and physical competence" (Bailey et al., 2009: 1). What is less clear is whether this is to be interpreted as 'education in movement' or 'education through movement' although clearly it might be that both options are seen to have value. There is also a question is considered about 'education about movement'. Bailey and Doherty (2003) claim that this should be the minimum expected content of lessons.

3.4.2 The activities of PE
In considering the possibilities for developing physical competence it is important to recognise the activities of PE. In the main, the activities can be summarised as games; gymnastics; athletics; dance' swimming and outdoor and adventurous activities (OAA). OAA is also known as Outdoor and Adventurous Education (OAE).

Games seem to have an unquestioned place on the PE curriculum and take different forms. While initially teachers tended to employ a skills approach, in the last 40 years there have been a number of innovations. There have been Games centred approaches (GCA); Game Sense or Teaching Games for Understanding (Thorpe and Bunker, 1986); Tactical Games Models (Mitchell et al., 2013) and Play Practice

(Launder, 2001). These innovations all advocate similar principles such as playing an adapted form of the game from the outset. One of the arguments for this is that it is more enjoyable (Tinning, 2010) although given the contextualised nature of learning, it also makes more sense. Learning games by not playing games but learning skills that will help them solve problems not yet experienced, runs counter to common sense and most learning theory.

Games may take the form of team games such as netball or individual games such as badminton. Green (2008) reports that children with SEN are more likely to be included effectively in individual games although the precise reasons for this are not clear. The question then, is what kinds of physical competence can children learn through games? The key physical skills are related to personal skills and small tactical interplay and the capacity to read the game and apply skills to make the best decisions. Pill and Hyndman (2018) make the case for developing a model based on Gestalt Psychology. For many years Gymnastics and Dance were central to PE programmes. In both, there has been a tension between viewing them as a sire for learning technical skills in a formal manner and then much more child centred approaches. In dance this was exemplified by Lowden's (1989) call to 'get the dance from the child', while in gymnastics there was the move to 'educational gymnastics' (Williams, 1979). In both cases the assumption was that the activity was a place for creativity and a focus on process and the kind of divergent learning that is central to child centred teaching. In gymnastics this was exemplified by 'educational gymnastics' where the focus was on what the children could do and then move on from that. The emphasis was on solving problems and developing skills at the pace of the child. Often themes such as 'flight' 'levels' and 'transfer of weight' were used to focus the lesson (Williams, 1979; Long, 1991). Smith-Autard (2002) argued that the justification for a child centred approach in school was that the emphasis was on the process; that the focus was on creativity; and that the mode of thinking was about problem solving. It should be noted that both educational gymnastics and curriculum dance as described by Lowden (1989), focus on mastering principles as content. They are also the only aspects of the PE curriculum where the quality of movement is ostensibly 'the point' and so might be seen to serve a kinaesthetic element.

Athletics on the PE curriculum has faced the same challenge of other activities. The traditional approach was to teach children the techniques and the children are

expected to throw 'age appropriate' implements and run over recognised distances. However, this has been shown to lack differentiation and in many cases reinforces what children cannot do rather than seek to enable them to improve. This led to a range of child centred athletics being developed. In these, the child is no longer assumed to be of a homogenous body type, experience and motivation and the teachers set the children a series of challenges. Morgan (2011) used these principles to develop a series of challenges which he based on the idea of a mastery climate. The principles, being tasks that are self- referenced; students being involved in decision making about the structure of the task; seeking to develop nurturing relationships; recognition of effort and improvement; use of mixed ability groups and flexible time for task completion.

In the UK OAA is a mainly school-based hybrid of outdoor education and outdoor pursuits. It must be said that OAA in its implementation has tended to focus on improvised activities where the focus is on problem solving, leadership and team work. In an analysis of models from across the world, Sutherland and Legge (2016) concluded that there was little consensus about the of purpose of OAA/OAE. They ask the question about the extent to which OAA is a concern with skills learning and/or fostering personal growth. While they seem to be appropriate questions, they might not be mutually exclusive.

While it has been reported that the provision of outdoor education within schools has declined in the UK over the past two decades due to factors such as the reduction in local authority outdoor education centres, safety concerns, and cost (Allison & Telford, 2005), outdoor education still seems to hold a place in the physical education curriculum. Indeed, Williams and Wainwright (2016) have recently conceptualized a pedagogical model for outdoor adventure education in the UK context. Their research was based on a review of scholarship in the field. They concluded that the major impact of OAE is upon the affective domain, and that this is particularly relevant to students developing a positive self-concept. In addition, they felt that learning is also evident in the cognitive and physical domains, but this is secondary to learning in the affective domain. Drawing upon the analysis of the research literature, the major theme for the model is identified as 'personal growth through adventure' and 'OAE' is suggested as the name of the model.

3.4.3 Developing physical competence: What kind of knowledge is required?

It is important to consider the nature of the knowledge involved in developing physical competence as this affects theories of learning that seek to explain how learning happens. In researching personal theories of learning, how the knowledge appears in the participants' consciousness, will be of significance. In chapter 2, one of Engestrom's questions that was used to consider the efficacy of learning theories was directed at the content of learning. The knowledge required to carry out practical tasks is known as practical knowledge which is sometimes referred to as procedural knowledge (Cardinal et al., 2004). Essentially, this involves knowing *how* to do something like riding a bike, playing a musical instrument or making a suit. Practical knowledge often involves implicit learning, which is where the learner learns but may not be aware of it. Indeed, often this kind of knowledge exists 'beyond discursive consciousness' (O'Loughlin, 2006) and is referred to as tacit knowledge, the kind of knowledge that is often only revealed 'in context' (Claxton, 1985). The musician is asked to play a song and is not sure how to do it. The act of them sitting at the piano and reminding themselves of the opening chords might be enough to enable them to play it. One of the questions around practical knowledge is how the learner might be said to demonstrate their understanding. The counter to this would be that to participate in games requires an understanding of the rules, by playing to the rules, demonstrating an appreciation of the game and being able to influence it through overcoming problems using skill at an appropriate time. All those requirements need the person to demonstrate their understanding by 'doing' those things. It might be that a person could not articulate a solution to any of those requirements but could 'do' them. There is also the requirement to interact with team mates and cooperating with the opposition over the rules, all shows high levels of understanding in a dynamic context. Newton (2000) proposes that relevant to the content of understanding in games is the *relational components the nature of the relational components and the level of understanding.* This kind of knowledge is sometimes referred to as 'implicit learning as it involves building knowledge that is not fully accessible to consciousness (Seger, 1994). Seger also suggests that this often involves learning about information that is more complex than a single simple association and does not involve processes of conscious hypothesis testing.

3.4.4 Physical competence: Summary

It is axiomatic that PE is a concern with physical competence. In research like this that is aimed at interpreting the participants' theories of learning, understanding how they see the possibilities for learning offered by the subject and also how they understand the nature of the knowledge, is of importance. It is evident that the PE profession has been influenced by a debate about the nature of physical competence. Namely, that there is an ideological tension between a sporting technical ideology and a more child centred focus on process. How the participants articulate a position on these debates or their awareness of these will be of significance. The final point to be made is that *how* practical knowledge is understood is likely to be a prominent focus. The idea that often, practical knowledge lies beyond ready articulation is an important philosophical idea and will be central to this research.

3.5 - Social learning in PE

Given the social nature of most PE lessons with children often learning in groups, it is not surprising that there are many claims for social benefits in PE (Ciotto and Gagon, 2018; Barker et al., 2017; Andrew et al., 2019). Given this, it is remarkable that social learning has had comparatively little recognition in the various iterations of the NC. Laker (2000: 2005) called this a 'glaring inconsistency'. The evidence, in for social learning in PE is summarised by Bailey et al. (2009:1) as:

> "In the social domain, there is sufficient evidence to support claims of positive benefits for young people. Importantly, benefits are mediated by environmental and contextual factors such as leadership, the involvement of young people in decision-making, an emphasis on social relationships, and an explicit focus on learning processes"

A significant point is the idea that these benefits are 'mediated' by various factors. This is an echo of Newton's claim for the interaction of what he referred to as 'relational components' in developing understanding. High among these are the culture in the classroom and the relationship between the teacher and the students. Daniels (2001) referred to pedagogy as, in part, a relationship between the teacher and the student, the extent to which, social benefits are seen as a priority for the teacher. Paul Ramsden's (2003: 67) famous quote that, "… from the learners' perspective the assessment defines the curriculum" is helpful here as the word 'social'

does not appear in the current NC for PE. Nor does it appear in the Kent 'Assessing to Learn- Learning to assess' (Advisory Service Kent, 2007). In the Edexcel GSCE specifications (2020: 14) there is a section where the students study *Physical, emotional and social health, fitness and wellbeing*. It appears, that while social learning is valued, it does not inform the 'high stakes' summative assessment in as obvious a way as more performative aspects. The absence of social learning from summative assessment might be because assessing social benefits is seen to lie outside the more visible and rational aspects of learning in PE, in particular, where the assessment is of practical knowledge and propositional knowledge. This should be read as something of a contradiction as there is widespread endorsement of children having 'fun' and 'enjoyment' in PE to the point it can be considered a *sine qua non* (Green, 2003; Tinning, 2010; Beni, et al., 2017).

Bailey et al.'s (2009) focus on decision making seems logical as when people have agency, they are likely to be able to exercise a degree of self-determination and this can cause higher degrees of ownership. This was a part of the rationale for adopting child centred teaching of practical knowledge highlighted in section 3.4. In conceptualizing agency Biesta and Tedder (2007) argue, agency is something people achieve and is not something they possess. Alongside the idea of agency is that of social responsibility (Morris et al. 2003). The concept being that through the PE lessons, children are expected to take care of themselves, take care of others and also their surroundings. Morris proposes that such an aim requires a shift in focus and makes the point that for such an aim to make a difference this has to be a whole school initiative.

The social element of PE can be viewed as a matter of learning to be social or learning through social means. The idea that PE lessons might be the site for social development has a long history. That children can learn social values and develop personal characteristics, has been widely advocated. OAA has often been considered to be a site of social learning. One of the possible differences is in the assessment constructs. Whereas the teachers may exhibit a preference for skill learning when engaged with team games in OAA, the principal assessment construct is the team work and so it might be easier for the teacher to switch their focus to the social processes. To use Adventure Based Learning (ABL) embodies the kinds of student-centred approaches outlined in section 3.4. In seeking to encompass a form of

adventure, where the educative purpose of the experience is emphasized, and students reflect on their personal and social development through a debrief process.

There have been claims that PE 'naturally' lends itself to group work. This may well be the case but that is not to assume, that how the teacher mediates this in practice, is not a factor. How teachers put this into practice and the sense that the children make of the demands of effective group work will be important factors. It could also be that to say PE is a natural site for social learning might be to compare good practice in PE with poor practice in the classroom. There is no reason to assume that social learning cannot be incorporated into classroom lessons.

3.6 - Affective learning in PE

Closely related to the social goals are affective goals in PE. Given that 'fun' and 'enjoyment' are said to be high on the agenda for many PE teachers (Green, 2003) it might be expected that affective learning is at the heart of the subject.

> "In the affective domain, too, engagement in physical activity has been positively associated with numerous dimensions of psychological and emotional development, yet the mechanisms through which these benefits occur are less clear" (Bailey et al., 2009: 1).

Bailey et al. (2009) are saying that there are possibilities for affective learning but that how this is to be achieved is less clear. In reflecting on how PE can contribute to affective learning Laker (2000) proposed a model (model 3.1) where he envisages the person as a subjective entity. He proposes that the affect is a matter of the moral and the aesthetic. The moral, he suggests is to do with autonomy, altruism and responsibility. This feels very much like a model of citizenship where the learner in PE is being encouraged to be an effective citizen with the assumption this will have positive effects on their affect. It is also the case that acts of altruism can make people feel happier. In research into the effects of performing acts of generosity Rowland and Curry (2018) concluded that performing acts of kindness can have a positive correlation with increased happiness. Also, that observing acts of kindness can have similar effects. The implications for this are that it might be in lessons that a focus on being a good partner in a badminton lesson, pacing another child to help them improve their time in athletics or listening to other peoples' ideas in a gymnastics lesson could invoke similar feelings. Having autonomy is widely acknowledged to be positive for mental health on the basis that, if we feel that things are under our control,

we feel better. Brighouse (2006) argues that autonomy can be justified instrumentally because it promotes human flourishing.

On the other side of the model is the aesthetic attitude. This acknowledges that the appreciation of movement has an aesthetic. The finely choreographed movement at a line out in rugby union, if well executed, serves to secure possession. However, especially to the practiced eye, this will have an aesthetic value. This can be applied to any aspect of movement. Of course, in activities such as gymnastics and Dance, 'how' it looks is the point. In this section, Laker is also saying that when performing the process of being playful when trying to execute the movement with maximum efficiency might also be seen as being aesthetic.
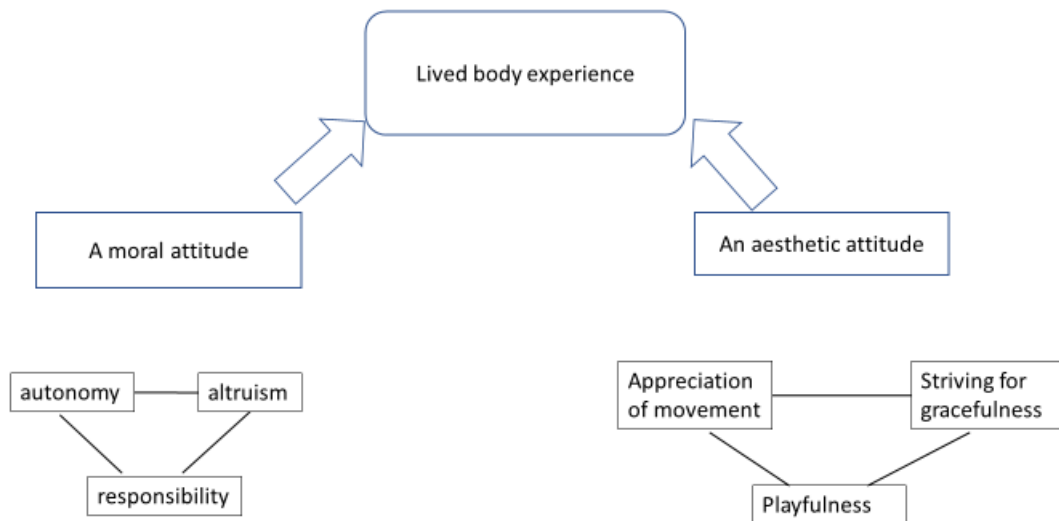
Model 3.1 Laker (2000) - Content of the affective domain as it applies to PE

The idea that exercise and moving are often seen as almost essential for mental health, has been widely promoted although this is not necessarily supported in the research. One of the issues must be that to find causal links in such a complex area, is a severe challenge. In a study that sought to correlate the relationship between physical activity and grade point average and PA and mental well-being in Norwegian adolescents, the researchers were not able to find any positive correlation between PA and mental health or PA and academic performance (Vedoy et al., 2020). Halliday

et al. (2019) found that Physical activity was associated with all the markers of mental health. In particular, there were stronger correlations with engagement and perseverance than other domains.

One of the central factors related to affective learning in PE is the focus on health. The assumption being, that if we are healthy, or feel that we are healthy and feel we are in control of events this can have a positive influence on the affect. This can be summarised as being a concern in promoting life-long engagement with physical activity, learning about health and fitness and a more implicit message about the 'ideal' body. The aim to encourage lifelong engagement with physical activity can be seen as something of a curriculum outlier. There are few, if any other subjects, that have such an aim. The NC for maths does not have, as one of its aims, 'to promote a lifelong engagement with mathematics'. It is also not an easy aim to research even with a longitudinal study although Engstrom (2008) published a study which he carried out over 38 years! In his conclusion he says,

> A middle-aged individual's level of exercise is closely linked to that person's social position and, accordingly, to his or her educational capital. The children and adolescents with the greatest chance of achieving this middle-class position were those from backgrounds with a relatively high social positions and/or high grades in school. If they had a strong sport habitus as well, their inclination to exercise was strengthened. (Engestrom, 2008: 319)

On the basis of this Engestrom's study it would seem that what happens in PE is not the main determining factor of life long engagement in PA. The aim of learning about health and fitness hides a good deal of uncertainty. First, that health and fitness are clearly related but not the same as any GCSE PE student will attest. Second, that often what is on the curriculum is children 'doing' exercise and it is assumed that the children are learning *about* fitness or even health and fitness. The third aim is to do with assumptions of the 'ideal' body. This appears to be an instance of 'hidden curriculum' and there has been a good deal of scholarship in this field. An example of such research is that by Johnson et al. (2013) who investigated how 'healthism' and ideal body discourses were produced, re-produced, negotiated, and resisted by pupils and Physical Education (PE) teachers in a Scottish secondary school. The headline findings were that pupils viewed health as an individual responsibility to

maintain a particular body shape through diet and exercise and in addition they articulated a strong adherence to aesthetic, gendered and functional ideals. The teachers demonstrated a high-level awareness of the pressure on adolescents but it seemed that a side effect of some of their teaching, was understood by their students to exacerbate concerns about body image.

In a time when the policy context has given rise to groups of people who live a precarious existence (Standing, 2011) it is likely that (see 3.3.2 for more on this) PE has something to offer children. "…that participation in regular physical activity and all this entails in terms of becoming physically competent and literate – indeed, physically educated – is hugely valuable and important for all young people" (Kirk, 2020: 3). This serves to highlight the importance of teachers being aware of students and adopting a culturally relevant pedagogy (Howard, 2003).

In considering the place of affective learning in PE it has been argued that if education is viewed as belonging to the subjective 'life world' then affective learning has a clear purpose and would fit very well. However, if the modernisation of education by the manmade technologies is seen to hold sway, then it might be seen as less relevant. The fact that it is so hard to prove a causal relationship between teaching and the affective domain does not necessarily diminish its value. Perhaps a focus on the affect might be seen as a means to counter the highly performative and managerial practices in schools. The last step in McNamara's fallacy is helpful here. "The fourth step is to say that what can't be easily measured really doesn't exist. This is suicide". To say that the affect does not exist clearly is to deny the obvious. The question then, is how this is viewed by teachers and policy makers. In this study, how affect learning appears in the consciousness will be significant.

3.7 - Cognitive learning in PE
The philosopher R.S. Peters (1966) proposed that education must involve the initiation into 'worthwhile activities' and that these activities should have intrinsic worth. Furthermore, he was a strong advocate of cognitive knowledge and this might be viewed as an example of higher status being afforded to subjects associated with propositional knowledge. It is worth bearing in mind that the phenomenological position would be that we live in the world as a single unit of experiencing (Heidegger,

1962) and as such there is no separation between the emotional and the cognitive (Damasio, 2010).

Bailey et al. (2009) suggest that how PE contributes to the cognitive is often not well understood.

> "Likewise, the mechanisms by which PESS might contribute to cognitive and academic developments are barely understood. There is, however, some persuasive evidence to suggest that physical activity can improve children's concentration and arousal, which might indirectly benefit academic performance (Bailey et al., 2009: 1).

The problem with the perspective that PA can improve children's concentration is that it reduces the intrinsic value of the subject. It appears that there are two different questions to be considered. First, the extent to which involvement in PE helps children learn cognitively in other subjects. This question might be a misdirection. Second, how can we understand the place of cognitive learning in PE, which seems more to the point. In response to the first question this can be understood as an example of subject hegemony. In the same way there is some anecdotal reporting of children being routinely removed from PE lessons for 'catch up' lessons in maths and literacy. There are no reports of children being removed from Maths to improve their Indian dribble!! The response to the second question is more complex. Significantly, even in a subject where practical knowledge is at the centre, demonstrating knowledge in a cognitive manner can be of high status. In 2008, Kent Advisory service developed a scheme to aid teachers with assessment in PE. It was entitled 'Assessing to learn-learning to assess'. One of the things it did was to provide 8 level criteria. Looking at the level 8 (top) criteria it is noticeable that there is an emphasis on propositional knowledge. There are criteria that focus on, 'recognise the importance of evaluation'; children being 'thorough at the audit stage'; children being able to '…describe the benefits of a regular review in order to achieve the highest levels of performance' and 'recognises the importance of living an active healthy life style'. That is not to denigrate any of those aims as a worthwhile part of being physically educated but they all focus on propositional knowledge.

The focus on cognitive as a significant element in education, sends messages to children about what is valued. It might be that this sustains the idea that the ideal pupil is rational and logical.

> While cognitive views remain deeply influential in education, both explicitly and implicitly, they sustain a sometimes dangerous fiction that learners only develop as such when they overcome the body, subduing the senses and relegating passion to the dimension of animal existence. In this way creatural existence with its immediate bodily feeling remains in the shadows.

(O'Loughlin, 2006: 69)

O'Loughlin is arguing that there can be times when it is assumed that removing emotion is seen in a positive way and that the cognitive is seen to hold sway or as she says that the cognitive 'subdues' the body.

In PE the emergence of Sports Science degrees in Higher Education and GCSE and A Level courses in PE have grown a good deal. In 1990, 639 students took A levels in PE/Sport (Green, 2008) whereas in 2020 that figure was around 11,500 (Data Lab, 2020). While most GCSE and A level courses include a practical assessment as one of the summative components. The growth of PE as an examination subject has led to an increased focus on naturally incorporated propositional knowledge into the subject. These courses have become a growing feature of school curricula.

The final point to be made here is, that having some focus on the cognitive, seems to have possibilities for inclusion. The knowledge of how to execute the Fosbury flop can be a matter situated as a concern with practical knowledge but the theory of how to execute an effective high jump in this manner can also be subject to biomechanical analysis. In this way the same thing can be understood in using different epistemological positions. It might even be that there is much cross over. That is to say, knowing that the free knee driving up causes the essential bodily rotation, cannot be a negative. Understanding the biomechanical rationale for this might also be of interest and value. If that knowledge helps make sense of the 'feelings' of the performance then so much the better.

The place of cognitive learning in PE is far from straightforward. It is situated in a hierarchy where it is seen to be superior to practical knowledge in its place in

education. It will be significant to see how this appears in the participants consciousness.

3.8 - What can be learned in PE?: Summary

In this chapter the content of what can be learned in PE has been considered under five themes. The first theme is that of convergence and divergence. It seems clear that there is a tension between PE as a site for inducting children into particular knowledge and beliefs which would be convergent and seeking to educate them *through* the activities. A good example of this is the health focus. Is the idea to inculcate the notion that exercise is some kind of *sine qua non* or is the purpose that the children are educated with the intension that they will then be able to make informed decisions?

The second theme, is closely related to the first one. This is to draw a distinction between PE as learning to play sport and PE as a site for being educated *through* sport. The former is clearly a more convergent aim and the latter much more divergent. Seeing how this appears in the consciousness of the participants will be of interest in the field work.

The third theme is that of the nature of practical knowledge. It is argued here that PE is naturally concerned with practical knowledge and this is characterised by being beyond discursive consciousness (O'Loughlin, 2006). So, it is quite possible that understanding can only be demonstrated by 'doing'. This is a key concept that will be of great significance in the field work.

The fourth theme is that of hegemony. This can be seen to occur on a macro scale with the privileging of propositional knowledge over practical knowledge. This will be an important aspect underpinning the field work. On a micro scale it has been argued that there is also a hegemony occurring between the 4 domains of learning in PE. The more visible and performance aspects being privileged over the less visible and less measurable aspects such as social learning.

The fifth and final theme is that of taking a technical or a 'lifeworld' perspective (Habermas, 2010). It has been argued here, that in effect, learning belongs to the

'lifeworld' but in school, has been colonised by the manmade technical world. This is particularly clear in assessment where the emphasis on awarding numbers to judgements is what Rowntree (1987: 74) referred to as, "…a pseudo objective façade". In philosophy this might be viewed as a 'category error'. Something that belongs in the lifeworld, being treated as if it was in the technical world.

In the next chapter the characteristics of personal theories will be examined.

Chapter 4 – Personal Theories of Learning:
a phenomenological perspective

4.1 Personal theories of learning- Introduction

This is the third and final chapter in section 1 of this thesis. The purpose of section 1 is to set out the theoretical background to this research. The nature of theory as it applies to learning theory is considered in chapter 2. In that chapter it was argued that human learning is best explained using embodied theories but that the discourses from earlier, less sufficient theories, still inform the language. In chapter 3 the context of learning in Physical Education (PE) was presented and issues in the subject were identified. In particular the Physical Education and Sport relationship; the lack of a wide consensus in the role of PE in teaching health and fitness; the privileging of propositional knowledge and the adoption of technical perspectives. This research is seeking to make interpretations of the theories that the participating teachers hold about how children learn and so situating it in the field of personal theories was seen as a logical choice. The epistemological approach for this research is set in interpretivist phenomenology which, "…aims to gain an understanding of how participants view and experience their world" (Willig, 2001: 66). Therefore, phenomenology should be viewed as a concern with people's consciousness of the world (Smith Et al. 2009). In this case what is sought is to make interpretations about the participants' theories of how children learn as they appear in their consciousness. In seeking to make interpretations, Interpretive phenomenology (IPA) acknowledges that it is impossible to gain unmediated access to someone else's construing, hence the need to engage with their accounts in a systematic manner (Smith Et al. 2009).

This chapter has three aims to do three things. First, it will present a definition of personal theories and an overview of previous research which can be located in a personal theory category. Second, it will develop a rationale for how this can be understood in an interpretive phenomenological approach. Third, it will present an overview of previous research in the personal theory category where aspects of learning were the focus.

4.2 Personal theories: Mapping the theoretical field

While the term 'personal theories' has been widely used over the years it is best seen as a general term for describing approaches to research that take individual's perspectives as the point of departure for theorising. It is a concept that is not associated exclusively with any philosophical positions, except to say the eponymous nature of the title 'personal theories' indicates an interest in the detail of how people see their worlds.

A review of empirical studies using personal theories shows that a range of methodologies have been employed under the theme of researching 'personal theories'. In diagram 4.1 an overview of the relationship is presented.
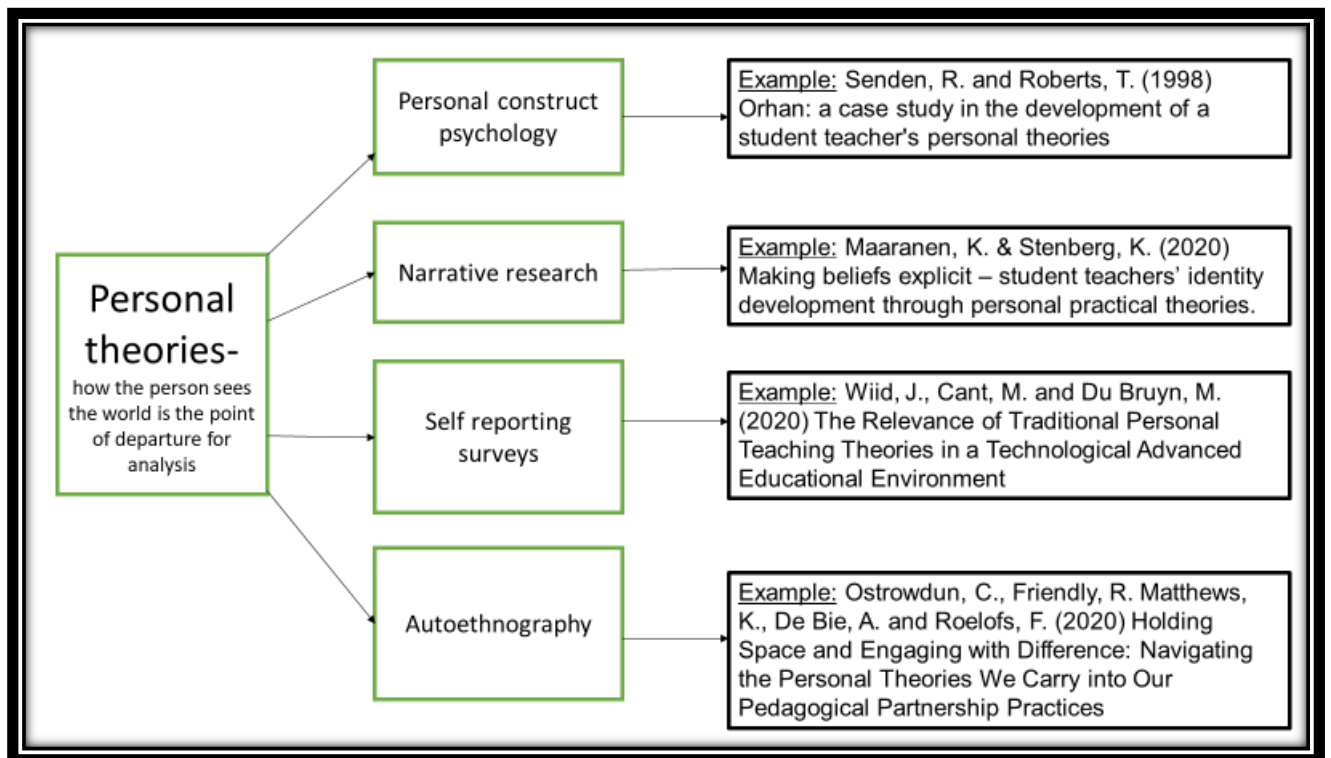
Diagram 4.1 – Personal theories and research approaches

The approaches in diagram 4.1 are given as examples and a more complete summary can be found in appendix 3a. The case made here is that theory is an explanation and that in 'personal theories', the interest is in how people theorise aspects of their worlds to explain particular phenomenon. It is to be understood that in many cases these personal theories will be hazy, incomplete and often unarticulated. Closely related to personal theories are what Furnham (1988) calls

'lay' theories. In this sense 'lay' is taken to be someone who is not highly trained or does not have detailed knowledge of a particular subject.

> Because they are rarely, if ever, presented formally, lay theories are frequently ambiguous, incoherent and inconsistent. That is people can hold two mutually incompatible or contradictory ideas or beliefs at the same time and not be particularly troubled by the inconsistency (Furnham, 1988: 3).

In terms of personal theories, it is assumed that how people theorise the world gives the researcher an appreciation about how the participants 'explain' particular phenomena. In diagram 4.1 four contrasting research projects that have all drawn on the idea of personal theories, have been presented. All of these projects were under the 'banner' of personal theories but each one has utilised a different set of epistemological assumptions.

The idea of a 'personal theory' can be interpreted as a form of mental organisation that a person creates in response to their interactions with their world. It must be emphasised that research employing a personal theory perspective, does not imply any particular epistemological affiliation other than saying, this is research that belongs to a relativist paradigm where it is assumed that the purpose is to explain how people in specific contexts understand and interpret their social reality (Cohen Et al. 2018). In looking at previous empirical studies it can be seen that a number of different theoretical positions have been employed to focus the approach. There has been attribution theory, Ross (1989); Weiner (1994); Dweck et al. (1995). Narrative research, Brickhouse (1989); Maaranen and Stenberg (2020). Autoethnography- Ostrowdun et al. (2020); Action research- Harnett (2012); Papadopoulou et al. (2020); Personal Construct Psychology (PCP)- Senden and Roberts (1998); Tsai, C. (2002); Mixed methods, Tsangaridou and O'Sullivan (2003); Harnett (2012) and Surveys, Chan (2001); Ommundsen (2001) and Barger (2016 and 2019). It should be noted that there are no studies under review where phenomenology was the approach and so this is one of the contributions to theory that this research will make.

It has been claimed that the term 'theory' is often assumed, implicitly, to refer to something that can be articulated (Tomlinson, 1999). However, one of the most consistent findings of many studies into personal theories is that many personal theories exist, to an extent, as 'tacit' theories. That is to say, theories that lie beyond

ready discursive consciousness (O'Loughlin, 2006). This was highlighted in personal theory research by Ross (1989; Tann (1993); Dweck, et al. (1995); Wong (1989); Ommundsen (2001); Bratten and Stromso (2005); Levin and Ye (2008). This is an important theoretical position in this study. It is important to note that 'consciousness' is not to be understood as a synonym for awareness but that it is better to consider this in terms of mental states. "Consciousness is a feature of many mental states but, on this picture, it is not necessary or even central to a state being a mental state" (Rosenthal, 2005 :21). What is important here is that it is likely that the participants in this study will hold theories that are largely implicit but because consciousness appropriates language (Rosenthal, 2005) then interpretations can be made from what the participants articulate. A more complete rationale for this will be developed in chapter 5. However, at this stage it is vital to state that the assumption here is that there is no sense of a binary between implicit and espoused theories. Rather that they exist on a notional continuum. In considering the relationship between consciousness and unconsciousness, Damasio (2010) argues that the two states should be conceptualised in the manner of a dimmer switch. In the same way it will be argued that espoused, or explicit theories and implicit theories exist on a continuum and that their relationship is forever shifting.

Argyris and Schon (1974) argued that there are differences between what people say and what they do. However, they argued that there are theories consistent with what people say they do and a theory consistent with what they do and that often there is a difference between the two. Hence, the difference is not between theory and action but between espoused theories and theories in use. An example of this might be a PE teacher who espouses the idea that her lessons always enable high levels of academic learning time but when she teaches her lessons often has children queuing up. In an action study carried out by Harnett (2012) it was found that teachers' implicit beliefs and routinised behaviours often had a negative effect on teachers' relationships with their students. By making these differences visible and then reducing the dissonance it was found that teachers were able to make incremental changes in their interactions with their students. A key point to note here is that implicit theories can be made explicit but only if the person holding the theories chooses to bring their attention to bear on these theories. In this research, where it is assumed that people live in an embodied manner the assumption is that "….. thought is mostly

unconscious.." (Lakoff and Johnson, 1999: 3) which is also a perspective held by Dennett (1991) who claimed that most mental processes are not readily accessible.

4.3 Towards a phenomenological rationale for personal theories

To be in a position to interpret how the participants in this research are conscious of how children learn, an approach based in interpretive phenomenology was employed. Phenomenology has been defined as the "science of consciousness" (Lind 1986: 325). Like any field of scholarship Phenomenology has not settled on a single perspective on consciousness.

> Phenomenology does not cohere to an agreed method, or accepts one theoretical outlook, or one set of philosophical theses about consciousness, knowledge and the world (Moran, 2000: 3).

Moran's comment is pointing to the idea that the early phenomenologists such as Husserl, focussed on the essential structures that allow objects we normally take for granted, to constitute themselves in consciousness (Moran, 2000). This can be seen as Husserl's way to 'recover' aspects of our lives from the natural attitude (Husserl, 1900). The 'natural attitude' was Husserl's way to describe our everyday immersion in our own existence and experience that we tend to take for granted. However, the argument would be that how we see the world, colours our experience of it but that, for the most part, we are unaware of it. This is often referred to as a transcendental approach as what was sought was to 'surpass the usual limits' or transcend that which people routinely presented to the world. The later phenomenologists, such as Heidegger and Merleau Ponty, took a more existential perspective. Heidegger (1962) took the view that phenomenological analysis had to start, not with Husserl's notion of intentionality, but with the conditions required for there to be an intentionality. This gave rise to his idea of, '*Dasein'* which means that we exist or 'are being'. Heidegger was arguing that for much of the time we just exist and that we, in his words, 'follow the chatter' or live by taking the world for 'granted'. This is a state he described as 'inauthentic' and He felt that people needed to live more for themselves rather than follow others because in those moment people would become 'authentic'. To be 'authentic' in these terms can be interpreted as moments where we "..*Dasien* no longer takes the world for granted but instead, recognises the fundamental reality of being …" (Langdridge, 2007: 31) or we become aware or our being then so we

become authentic . Heidegger (1962) also argued that the person is a single unit of experiencing' as so he was promoting a deeply embodied notion of what it is to be. The very fact we are 'there being' gives meaning, for us, to our existence which he described as 'care'. In other words that how we understand the purpose of what they do is shaped by the very act of existing where we do (Langdridge, 2007).

In this research it might be that the participants start a line of response and then realise what they are espousing is not what they really think. It might be a question they don't understand and in the process of seeking clarification, they might have a moment of revelation and become more authentic in a phenomenological sense.

In this study what is of interest is how learning appears in the participants' consciousness. The concept of 'intentionality' is central to phenomenology and refers to the object of consciousness. The idea that when a person is conscious, their consciousness is directed at something in the world. Although this state of consciousness may lie at the periphery of their awareness.

> It is to be noted here that consciousness is to be understood not as a limited awareness, but in a much broader sense which would also include preconscious and unconscious processes (Giorgi and Giorgi, 2008: 26).

In this, 'preconscious' is best understood as part of the mind that exists just below conscious awareness. In considering the nature of personal theories in this study it is assumed that many of the theories that the participants hold about learning, will be implicit. However, in the relationship between thought and speech it is one where they are, "intimately connected" (Rosenthal, 2005 :71). The case can be made is that language cannot occur without thought, but thought unexpressed in speech can occur. Therefore, it is possible that implicit theories can be interpreted from language. In reporting on Merleau-Ponty (1962), Baldwin (2004: 202) argues that "Consciousness does not constitute language it appropriates it".

Finally, emphasis must be given to the notion that much of our lives are lived without 'paying too much attention'. This is an important idea to bear in mind in this research as it is possible that the teachers will have been immersed in their professional lives and that they may not have paid too much attention to how children learn but are busy 'getting on with the job'. Therefore, questions that are asking them to reflect on their practice, in a particular way, may cause moments of 'authenticity'.

4.4 Personal theories of learning

Initially theories of learning were seen as the exclusive province of the 'big theory' or disciplinary types of theory. These 'big' theories were highly structured and rational. For the most part, disciplinary theories form a conceptual structure and then people are 'fitted' into that pre-existing theoretical frame. That is not to say that disciplinary theories are fixed, as it may be that if this process of 'fitting in' is viewed as sufficiently problematic across enough cases, then the theory may shift or evolve to accommodate that. Hence, the existence of the three waves of learning theory that were proposed in chapter 2. Over time the earlier theories were increasingly seen as insufficient to explain human learning and this prompted psychologists to seek better theories. It was also the case that there was some dissatisfaction with disciplinary theories and a feeling that 'reversing the telescope' had merit which gave rise to the development of approaches that Dweck (1999) refers to as 'meaning systems'. Meaning systems are based on the principle that understanding how individuals see the world is of interest, and that this forms the starting point for theorising. One of the early fields was that of Personal Construct Psychology (PCP). In reflecting on the emergence of Personal Construct Psychology (PCP), one of the research methodologies that lie within a meaning systems field, Bannister and Fransella (1986: 29) suggest that,

> "Traditional psychology is not, in the main, about persons. By making the person the central subject-matter of psychology, construct theory changes the boundaries and the content of the existing science."

In 'meaning systems' the starting point for theorising is that, through living *in* the world people develop cognitive structures that enable them to make interpretations *about* the world. This means that the point of departure for theorising is the individual and a desire to understand the kinds of beliefs, theories and personal schemas that provide a cognitive structure, or the cognitive architecture (Jonassen, 2009) that enables people to make sense of their worlds. These personal theories can be seen as a combination of various elements:

> "...everyone has some set of beliefs and information about himself- his personal, largely unarticulated philosophy, psychology and physiology. This is part of the theory of how I see myself, my aspirations and goals

in life, my rights and obligations, and how" my body works: what makes me sick and where my heart is" (Claxton, 1984: 15).

Teachers are involved in helping children to learn it has been widely recognised that much of the knowledge that professionals such as teachers have is tacit and 'revealed in context' (Polanyi, 1966; Eraut, 2000 and 2010; Reinders, 2010; Elliot et al., 2011; Lejeune, 2011). Therefore, it is unlikely that the participating teachers in this study will be able to recall their theories of learning 'to order' or it may be that because the act of teaching is primarily concerned with practical knowledge, that the theories of learning that guide teachers, are implicit and revealed principally in their actions. That is not to say that they lie beyond articulation but that they can only be revealed under appropriate conditions. The task of the researcher therefore, is to create those conditions.

A key idea in phenomenology is that of intentionality which is the idea that consciousness is always a consciousness of something.

> "We are caught up in the world and we do not succeed in extricating ourselves from it in order to achieve consciousness of the world. If we did we should see that the quality is never experienced immediately and that all consciousness is a consciousness of something"

> (Merleau-Ponty, 1962: 5-6).

In this study the 'something' is the participating teachers' theories of learning. This is important as the Cartesian view of consciousness was that it was directed inwards and was not necessarily a consciousness of anything (Crossley, 2001; Feser, 2005) an idea that has been termed the 'egocentric predicament'.

In considering this, it is important to recognise how 'consciousness' is to be understood. There are physical events in the world that can be studied by science and exposed for public examination however, also worthy of study, are the individual subjective experiences of people known as *qualia* that belong in human consciousness and which are experienced from the 'inside' (Feser, 2005). In this research, personal theories of learning are taken to be a form of qualia and so a methodology that enables interpretations to be made about them, is required:

"Phenomenology is concerned solely with the structures and workings of human consciousness and its basic- through often implicit- presupposition is that the world we live in is created in consciousness, in our heads"

(Craib, 1992: 98).

Phenomenology is seen to have a focus on consciousness (Lind, 1986) although in this, it must be remembered that *consciousness* is to be understood not as a limited awareness, but in a much broader sense, which would also include preconscious and unconscious processes (Feser, 2005).

In a study which sought to gain insights into student teachers' personal theories, Tann (1993: 55-56) expands upon Claxton's thinking by suggesting that,

"...theory in this context refers to a person's set of beliefs and, values, understandings, assumptions. Such 'theories' are at a 'common sense' level and relate to types of life-experience based on knowledge and understandings that a person draws on to guide their actions."

It may be that personal theories exist as theories that can be readily espoused (Schon, 1987) in which case, they may be seen to exist in an explicit state or alternatively, they may lie beyond ready articulation and so are said to exist implicitly:

"Implicit theories of intelligence are constructions of people that reside in the minds of these individuals, whether as definitions or otherwise. Such theories need to be discovered rather than invented as they already exist in some form in people's heads."

(Sternberg, 1990: 54)

In research with student teachers, personal theories were described as, "...an underlying system of constructs that student teachers draw upon in thinking about, evaluating, classifying and guiding pedagogic practice" (Senden and Roberts, 1998: 231). Senden and Roberts' conclusion that personal theories will guide pedagogic actions is an appealing argument as it suggests a smooth flow and causal relationship between perceptions of learning and the immediacy of practice in any given learning situation. However, Dweck et. al. (1995) propose that while personal theories may

inform the ways that we see the world, they may not necessarily underpin related actions.

There is a critical mass of opinion among scholars that supports the existence of personal theories (Claxton, 1984; 1990; John, 1996; Dweck, 1999). This corpus of work comprises dimensions such as, beliefs and knowledge which together, form cognitive organisations. These enable us to interpret, make sense of the world and potentially (although this is contested) guide our actions. Given the manifold ways that we exist in the world it seems likely that we develop many such theories and, "Because there is no one 'best' theory, we may need several rather different looking theories about the same phenomena in order to account for it" (Claxton, 1984: 4). It also seems likely that given the multitude of social contexts we inhabit, we will develop theories that allow us to make sense of, and operate in, each context.

The question of how susceptible to change these theories are is of considerable interest. The reforming of personal theories in the light of experience and further thought may be seen as a metaphor for learning in that, "The process of testing and improving the personal theory that guides us through life is what we call learning" (Claxton, 1984: 20), a perspective which is in line with Popper's (1994) proposal that learning occurs when the learner strives to resolve the mismatch between expectation and experience. This posits the question as to how malleable personal theories might be and also the circumstances under which people could be prepared to modify their theories. If a person is ready to reshape their theories then we might see that they are open to learning and if not then they could be seen as resistant. This is problematic as it seems inevitable that there will be theories that we are all more ready to change than others, and the fact that in the process of change, people may have to 'let go of' some key ideas that, at some level of consciousness, they see as defining features of their identity. It has been proposed that an important first step in conceptual change is the realisation that one is dissatisfied with one's existing ideas about the world (Patrick and Pintrich, 2001). Religious views and political positions might be seen as examples of personal theories that people might be reluctant to change even in the face of compelling evidence or argument to do so, not least because, to relinquish such ideas might mean they could no longer be seen to be authentic members of social groups that hold similar ideas. From this we can infer

that learning involves change, not just in terms of a perspective, but in how identity is constructed. This provides a rationale for the notion of learning having the potential to be 'transformative' (Mezirow 1991, 1997). So, there is an argument to be developed that learning can change us in fundamental ways which hopefully will be seen as positive and developmental. In this way, 'development' may be viewed as synonymous with learning, "Learning is not the result of development; learning *is* development" (Twomey-Fosnot, 1996: 29). This also resonates with Jarvis' (2006) position of learning being an embodied phenomenon.

The field of personal theories is not without its critics. Thomas (2007) advances two broad arguments against the efficacy of personal theories. First, he posits the idea that it is doubtful to assume that, "one's practice in the classroom is justified by one's personal theory, which is taken to be more secure or reliable than the practice or context from which it was generated" (Thomas, 2007: 32-33). However, this position assumes that 'personal' theories inform actions as well as perceptions, a view which chimes with Dweck et. al. (1995). For example, as a PE teacher I might know that in order to learn, children need a lot of good quality practice attempts close together but I might then teach a javelin lesson in such a way that the children spent much of the lesson time queuing up and only use 'correct weight' implements despite the fact that the class is comprised of children of very different heights and weights. Thomas' second argument is that, "…theory pays too much heed to that which is established" (Thomas, 2007: 33). In this, he is advancing an argument that we can become trapped by our theories of the world through assuming that there is no other perspective. However, this presumes that these theories are fixed rather than a kind of current 'best explanation' (Claxton, 1984: 31). Claxton also suggests that personal theories are always inadequate, "... because the world is changing and so the business of improving theories is unending" (1984: 32). In considering the malleability of personal theories in a personal psychology context (PCP) Bannister and Fransella (1986) propose that,

> "A theory is not dogma. Objection to theories can be based upon a belief that they are limiting, blinkering and imprisoning devices. This belief confuses dogma with theory" (Bannister and Fransella, 1986: 3).

This is a powerful argument in support of personal theories as it can be argued that a defining feature of a personal theory is that it *must* be malleable. However, this raises methodological problems for this work as the research is trying to make interpretations about cognitive constructions that might be continually shifting or evolving. These methodological implications will be addressed in Chapter 5.

4.5 Teachers' personal theories of learning
In considering theories of learning (Claxton, 1996) proposes that the most commonly held theories are that learning should be error free, rational and explicable, although it is unclear upon what empirical research Claxton bases these assertions. In the previous section it was argued that 'teaching' might be seen to comprise a set of socially constructed rituals that the teacher will be aware of from many diverse sources such as their own experiences as children in classrooms, media and literature (Lortie, 1975). For student teachers this is referred to as being 'insiders' (John, 1996) whereas in many professions the newcomer to the profession may never have been in the context before and so they will be essentially 'outsiders'.

Learning, as established in Chapter 2, is always about learning *something:* in considering what personal theories of learning teachers hold, it is possible that such theories exist in a symbiotic relationship with their personal theories about the nature of knowledge.

Given that the field of personal theories is a relatively mature one, the volume of empirical research is comparatively sparse.

Summary of empirical research into personal theories- In chronological order	
Author (s) - Year	**Title**
Anning, A. (1988)	Teachers' Theories about Children's learning.
Brickhouse, N. (1989)	The teaching of the philosophy of science in secondary classrooms: case studies of teachers' personal theories
Cole, A. (1990)	Personal Theories of Teaching: Development in the Formative Years.
Tann, S. (1993)	Eliciting Student Teachers' Personal theories.
Brown, D. and Rose, T. (1995)	Self-Reported Classroom Impact of Teachers' Theories about Learning and Obstacles to Implementation
Sugrue, C. (1996)	Sugrue, C. (1996) Student Teachers' Lay Theories: implications for professional development, in I.F. Goodson

	& A. Hargreaves (Eds), Teachers' Professional Lives, 154-177. London: Falmer Press.
Sugrue, C. (1997)	Student Teachers' Lay Theories and Identities: implications for professional development, European Journal of Teacher Education, 20, pp. 213-226.
Senden, F. and Roberts, J. (1998)	Orhan: a case study in the development of a student teacher's personal theories
Chan, K. (2001)	Validation of a measure of personal theories about teaching and learning.
Ommundsen, Y. (2001)	Pupils' affective responses in physical education classes: the association of implicit theories of the nature of ability and achievement goals.
Tsai, C. (2002)	Nested epistemologies: Science teachers' beliefs of teaching, learning and science Chin-Chung Tsai Journal of Science Education, 24:8, 771-783,
Bratten, I and Stromso, H. (2005)	The relationship between epistemological beliefs, implicit theories of learning among Norwegian postsecondary students.
Barger, M. (2016)	Do the Messages Matter? An Investigation of Classroom Messages and College Students' Personal Theories about Education.
Barger, M. (2019)	Connections Between Instructor Messages and Undergraduate Students' Changing Personal Theories About Education
Wiid, J., Cant, M. and Du Bruyn, M. (2020)	The Relevance of Traditional Personal Teaching Theories in a Technological Advanced Educational Environment
Papadopoulou, V., Kyriaki, T. and Palaiologou, N. (2020)	Teachers' Personal Theories of Teaching: Managing Cultural Diversity in Mainstream Public Primary Schools in Greece

Table 4.1 Chronological summary of empirical research into personal theories related to learning.

The focus of the research has been with student teachers, teachers, theories of teaching and students (Anning 1988; Tann 1993; Sugrue 1996; Ommundsen 2001; Bratten and Stromso, 2005). These studies considered a range of issues around personal theories of learning. Whilst Anning's (1988) study was concerned with teachers' theories about children's learning. The findings of this study concluded that,

Teachers generate theory through cumulative experiences and reflections on teaching and learning. It is argued that a research tradition in which theories are generated from teacher and pupil realities and needs is more likely to focus on issues of central rather than peripheral concern to practitioners. Moreover, if teachers themselves are involved in the processes of generating theory which is then articulated in familiar language then it is more likely to be shared with colleagues and translated into practice (Anning, 1988: 144).

Anning is making the case that theorising from practice is more likely to focus on issues of immediate concern to the teachers. The point is also made that the nature of the language is significant and so encouraging theorising from language based on practice might be of value. Tann (1993: 68) sought to elicit student teachers' personal theories. The headline findings of this study were that,

… because personal theory is so embedded in the way each of us thinks students found it hard to articulate and, if articulated implicitly, they found it very hard to spot assumptions and to challenge them.

In this study Tann is concluding that the students themselves were not in a position to make in depth interpretations. Sugrue (1996), on the other hand, carried out research into student teachers' lay theories and the implications for professional development, whilst Ommundsen's (2001) study was concerned with pupils' affective responses in physical education classes and the association of implicit theories of the nature of ability and achievement goals. Chan (2000) in research in Hong Kong with students found that the students held three epistemological beliefs. Namely that knowledge was seen as innate or related to the field; that there was 'expert' knowledge that had authority in the field and knowledge as 'certainty' that was related to traditional concepts about teaching and learning. More recently, Bratten and Stromso (2005) investigated the relationship between epistemological beliefs and implicit theories of learning among Norwegian post-secondary students. There is a need, therefore, for a study whose prime purpose is to seek deeper understandings about teachers' personal theories of learning.

The most recent empirical studies have focussed on teaching rather than learning. In a more recent study, (Papadopoulou et al. 2020) researched teachers' theories of teaching in relation to how they managed cultural diversity in a mainstream, public

primary schools in Greece. The headline finding was that the teachers' personal theories (5 participants) on which they based how they managed cultural diversity, were largely determined by an assimilative approach. That is to say the teachers saw that the process was one of taking the children from other cultures and inducting them into the school culture as it existed. An alternative to this would be to employ a 'funds of knowledge' pedagogy where the knowledge and experiences that the child brings are used as a way to enable them to access the classroom activities. The authors argue that this might point to a lack of awareness about what other approaches might be employed.

In higher education, Wiid et al. (2020) looked the relevance of four basic theories of teaching (transfer, shaping, traveling, and growing) which were analysed and elements of each were included in questionnaires to lecturers. It was clear from the study that critical thinking was the preferred teaching theory of lecturers. The conclusions of this study are that the lecturers should use a more uniform approach but this seems to ignore the possibility that students might enjoy different approaches.

Personal theories are closely linked with notions of knowledge and mind, "Generally it appears that people are most comfortable dealing with cognitive issues when they are formulated in ways that fit with the mind-as-container metaphor" (Bereiter and Scardamalia, 1996: 487). If the mind is viewed as a container it follows that there must be an assumption that knowledge is seen as a tangible commodity that can be deposited in the mental container.

Reporting on research into practising teachers' knowledge of how children learn, Brown and Rose (1995: 21) concluded that implicitly most educators, "...believe that students learn in a passive manner by reacting to forces external to them, rather than in an active manner as producers of their own knowledge". In contrast, it has been found that teachers hold eclectic and common-sense views of learning that highlight the importance of active involvement, the need for an emotionally secure learning environment, and the value of trial and error (Anning, 1988). These perspectives raise the possibility that even though teachers might espouse pedagogies that work on the assumption that learning will take place through a process of active knowledge construction, they can simultaneously hold on to notions of learning as a process of transfer:

> "Studies of teachers' beliefs show that student teachers often hold fast to an intuitive transmission model of teaching despite the constructivist view taught in most ITE courses"

> (Torff and Sternberg, 2001: 4).

The notion of teachers holding more than one theory at the same time is also illustrated in considerations of the place of heuristic activities in learning. Tinning (1987) suggests that teachers might espouse the value of trial-and-error as a generally worthwhile process, yet he also states that 'proper' learning occurs when someone the learner perceives to be authoritative, tells them something. This is to be read within the context of transparency, rationality and control, represented by the audit cultures that underpin educational policy (Ball, 2008; Ward and Eden, 2009), which is based upon the belief that the action of teaching causes children to learn what was intended by the teacher and also that learning will occur immediately. This was exemplified by the National Literacy and Numeracy strategies (DfES, 1997) that provided teachers with detailed schemes of work that were to be delivered not only within a Literacy of Numeracy hour, but broken down into sub sections of an hour. If it is accepted that learning is an idiosyncratic process of sense making carried out by the learner and that the learner learns not *by* being taught, but *through* being taught (Green 1998), then it follows that the teacher has to accept that they must cede control of what is learned. This sets up a tension between policy expectation, the teacher and the learner.

It would seem from the literature that 'learning', 'teaching' and 'knowledge' are deeply interrelated to the point where, to isolate each one for the purposes of examination, is unhelpful (Illeris, 2007). This proposition is underpinned by an essentially dualist perspective which means that rather than seeing teaching and learning as deeply integrated and interconnected, that implicitly, they are often represented as separate entities:

> "We have to develop implicit theories of action in order to make professional life tolerable. There are too many variables to take account all at once to, so we develop routines and decision-making habits to keep mental effort to a reasonable level"

> (Mason, 2002: 7).

What can be concluded here is that while there is some empirical research about implicit theories in general, there is comparatively little on teachers' theories of learning. Given that bringing about learning in others is the central purpose for teachers this may seem surprising, but in a policy landscape where teacher accountability is a prime concern (Docking, 2000; Olssen Et.al., 2004; Taylor-Webb, 2007), teaching becomes a performance that has merit in its own right. An alternative perspective might be to look at teaching in terms of how the teacher enables children to learn, although this is open to interpretation. However, this is also problematic as teachers may feel that they are caught between two endeavours. Namely, that they may see that they are to help children learn what is prescribed and is determined independently of their engagement with the learner or to see learning as an open-ended project that is partly determined by the learner themselves, where there are no prescribed 'learning outcomes' (Swann, 2012). However, it could be that the methodological problems of establishing constructions that exist at the periphery of consciousness, may have deterred researchers in the past.

4.6 Personal theories: a phenomenological perspective-Summary

This chapter had three aims. First, the field of personal theories has been considered and it has been claimed, that in research terms 'personal theory' can best be defined as a category of research that is most congruent within a relativist paradigm. While it clearly signals a focus on researching individual perspectives, it is not affiliated to any particular epistemology position. Previous research in this field has employed a variety of approaches such as Personal Construct Psychology, narrative and autoethnography. Up to this point there has been no research based in interpretive phenomenology and so this work will be making a contribution to the field.

Second, a rationale for a personal theories category of research was justified through making the case for a methodology based in interpretive phenomenology. These points are considered in more depth in chapter 5. A key justification, however, is that the participants' theories are likely to exist as implicit theories but that consciousness appropriates language (Baldwin, 2004) and so it is legitimate to interpret implicit theories from the participants' responses.

Third, the previous research into theories of learning was considered. Previous studies have focussed on a wide range of topics in the field and so it is impossible to be able to report on a solid incremental knowledge base. The one factor that does

seem to be widely agreed is that personal theories, to a large extent, are held implicitly. The other major considerations are how the learning process is conceptualised, differences between teachers espoused theories and theories in action and how the role of the learner is understood.

Given the comparative lack of research in personal theories of learning field, this study will make a contribution to knowledge. In addition, there are no studies of this kind where PE teachers were the participants.

This chapter completes section 1. The next, is chapter 5 which introduces section 2 of this thesis. Section 2 is focussed on the methodological justification for the research method.

Section 2 – Methodology and Method

Introduction to section 2

In section 1 of this thesis the theoretical background to the research was examined. In chapter 2 the nature of theory as it applies to learning theory was considered and an evaluation of the efficacy of learning theories to explain human learning was presented. In chapter 3 the context of learning in Physical Education (PE) was established and issues related to learning in the subject were identified. In chapter 3 a theoretical background to personal theories was developed which included a definition of personal theories and an overview of previous research in this field. In addition, there was a rationale for how this might be understood using an interpretive phenomenological approach and an overview of previous research in the field was included.

In section 2 of this thesis the approaches to the research are presented and a case for employing Interpretative Phenomenological Analysis will be made and there are 2 chapters. In chapter 5 the case for a phenomenological methodology is made and in chapter 6 the fine details of the research methods are presented.

Chapter 5 – Phenomenology psychology as a means to make interpretations about personal theories of learning

5.1 Introduction

This research is seeking to create the conditions where interpretations about the participating teachers' personal theories of learning can be made. In Chapter 4 it was established that much of what we know lies beyond ready articulation (Claxton, 1990) and cannot necessarily be recalled to order (Glenney, 1993). Therefore, it follows that the data gathering process has to be one that enables the participants to articulate about aspects of their lifeworld. It follows then, that a methodology based in phenomenology is ideally suited as Phenomenology is concerned with the study of human experience and the ways in which things are perceived and appear to consciousness (Langdridge 2007). The presupposition being that the world we live in is created in consciousness although many of those conscious experiences will be experienced implicitly (Craib, 1992). Phenomenology may also be considered as a means to describe what manifests itself to consciousness by the experiencer (Moran, 2000). In this chapter the case for employing Interpretative Phenomenological Analysis (IPA) as an approach to the research, will be made.

In Chapter 4 it was claimed that people may hold their personal theories consciously or they may exist at the 'periphery of consciousness' (Merleau-Ponty, 2003), in which case they may be said to be 'implicit' (Carpenter, 2012; Claxton 1984; Tomlinson, 1999). In chapter 4 it was argued that, in the past, there appears to have been a tacit assumption that the personal theories people hold are either explicit, or implicit. It should be noted that explicit theories are also referred to as espoused theories after seminal work by (Argyris and Schon, 1976). However, such a neat binary seems

problematic. In considering the concept of consciousness it has been claimed that, "People do, of course have many more beliefs and preferences at any given time, that occur in their stream of consciousness" (Rosenthal, 2005: 25). Therefore, what seems much more likely is that personal theories exist on a continuum where the person holding them may have theories about learning that they can readily espouse and others that are implicit. This may be seen to be similar to the idea of implicit bias where it is argued that, "…actors do not always have conscious, intentional control over the processes of social perception, impression formation and judgement that motivates their actions (Greenwald and Krieger, 2006: 946). To make interpretations about the participants personal theories requires the researcher to interpret the participants' responses and then make a second level of interpretation. That is to say, the researcher asks a question, the participant responds and then the researcher has to make an interpretation of the response. For example, a participant might say that they feel that precise and measurable learning outcomes are essential in PE lessons. The espoused theory of learning might be interpreted as one where learning can be predicted and controlled. However, it is also possible to say, that the participant holds the theory in a more implicit manner and that there is a 'causal' relationship between what is taught and what is learnt. It can also be claimed that they see the process of learning as one of knowledge being 'acquired' rather than constructed. This kind of ontological analysis is very much the central purpose of IPA where it is assumed, that how participants view and experience their worlds is the focus of the research. To this end the researcher acknowledges that it is impossible to gain direct and unmediated access to someone else's personal world and so IPA researchers engage with participants' accounts in such a way as to seek an insider perspective or first-person perspective (Willig, 2001). Another way to understand this is to bear in mind that

people's perceptions are not readily available, 'as we cannot look inside their heads' (Smith, 2009) and so a method of generating data that will enable interpretation of the participants' theories is required. In this chapter, the case for employing Interpretative Phenomenological Analysis (IPA), a method within phenomenological psychology, will be advanced. Knowledge generated employing a method based in hermeneutics is characterised by an assumption that 'truth' exists, but is only accessible through interpretation by the researcher (Rothe, 2000). This is a good illustration of the researcher position in relation to the research here being that of an insider.

5.2 Considering the efficacy of Phenomenology as a means to make interpretations about personal theories

When we sense aspects of the world this can be described as an 'inside' view which is deeply subjective and is known to philosophers as *qualia* (Feser, 2005; Margolis, 2006). Because we cannot have direct access to another person's 'inside view', what is required is a methodology that underpins methods that enable the researcher to make interpretations about the nature of the 'insider' perspective. Therefore, in essence, the project of phenomenology, when applied to research, is to seek understandings about other people's qualia. In this research that is the ways that the participating teachers understand how learning occurs. Central to phenomenology is the relationship between *noema* (what is experienced) and *noesis* (how it is experienced). This relationship is known as 'intentionality' (Sokolowski, 2000; Langdridge, 2007) and is the idea that every experience is a 'consciousness of something' or an object of consciousness. Indeed, phenomenology has been defined as the, "science of consciousness" (Lind, 1986: 325). It should be borne in mind that phenomenology is far from a homogenous discipline but has evolved through time

although, as we have seen, at its heart, lies the idea that how people perceive the world is of interest.

> 'Though there are a number of themes which characterise phenomenology, in general it never developed a set of dogmas or sedimented into a system' (Moran, 2000: 4).

In this research the case for employing a deeply hermeneutic approach based on the existentialist theories of phenomenology will be advanced.

Phenomenology has been described as a radical way of 'doing' philosophy and can be viewed as a practice rather than a system (Moran, 2000). In this context, 'radical' is defined as the idea of getting to the heart of the matter. Phenomenology can be seen as an alternative perspective to the deeply rational approaches advocated by Kant and Plato (Wrathall, 2005). As such, it provides a highly appropriate theoretical foundation for this study.

Phenomenology has evolved through time although, at its heart, lies the idea that how people perceive the world, their 'inside' view, is of interest. Phenomenology was founded by Edmund Husserl (1859-1938), a German philosopher and mathematician. It was Husserl who proposed the descriptive (eidetic) approach to phenomenological inquiry (Benoist, 2003; LeVassueur, 2003; Wofnar and Swanson, 2007). The notion of the eidetic reduction is a fundamental principle that underpins descriptive phenomenology; it is a process through which the researcher seeks to move from a consciousness of how individuals describe concrete objects, to a position where they gain an insight into the 'essence' of their understanding, so achieving an understanding of the *eidos* (Greek: "shape") of the thing itself (Wojnar

and Swanson, 2007). The idea being that the research 'brackets' themselves out of the process by suspending any of their presuppositions and so can get to a point where they can see the essence, the shape, of the thing as experienced by the subject of the research. This can be seen as deeply problematic as,

> "One might believe that one has full access to one's own experiential processes, but, even if this was true this access is not fully sharable with the critical other, and this attitude does not account for the unconscious dimensions."

(Giorgi and Giorgi, 2008: 49)

The principle of 'going back to the thing itself' was a central theme in Husserl's work (Langdridge, 2007; Smith et. al 2009). Phenomenological reduction is also a method of bracketing empirical intuitions, on the behalf of the researcher, away from philosophical inquiry, by refraining from making judgments upon them. Husserl uses the term *epoche* (Greek, for "a cessation") to refer to a 'suspension of judgment' regarding the true nature of reality (Moran, 2000). Bracketed judgment is an *epoche* or suspension of inquiry, which places in brackets whatever facts belong to the *essential* nature of the investigation. That approach can be seen as a concern with objectivity, rationality, fixed biological facts and assumes a fixed physical reality (Kemmis and Smith, 2008). Husserl's focus on 'the thing itself' reflects an interest in what is signified, or how the participant sees the object of consciousness, rather than the signifier. In researching PE teacher's implicit theories of learning (2012) I found that they tended to talk about assessment as a matter of showing progression in learning as the children moved up the assessment levels. In this case, the signifier would be the participants' perception that the key aim of assessment is that the children must be awarded grades. An interpretation of this might be, that what is

signified by this, is that the participants hold a somewhat reductionist and instrumental view about the aims and purposes of assessment which is held at an implicit level.

The original aim of phenomenology was seen as a concern with description and not explanation (Spinelli, 2005). In other words, the focus was upon understanding how people experience their worlds without attempting to provide explanations or seek causal links between events and personal perspectives. This is an important idea in this research where the aim is to interpret and not explain the participants theories of learning. Martin Heidegger (1889-1976) was deeply influenced by Husserl's work but also developed it by bringing a more existential dimension to phenomenology (Wrathall, 2005; Langdridge, 2007). He departed from Husserl's perspective as he did not feel it was possible for philosophers to investigate things 'in their appearing' and to be able to identify their essences in a neutral or detached way. Heidegger argued that all people are inseparable from the world they inhabit and therefore it is not possible to 'bracket off' one's way of seeing and identifying a phenomenon (Langdridge, 2007). To this end, Heidegger developed the idea of *Dasein,* literally meaning, 'there being'. It is proposed that this had three distinct purposes (Mulhall, 2013). First, that in everyday German usage it enables the human being to be referred to in terms of what is distinctive about them. This is very helpful in research like this where the person's personal theories of learning are sought because, given that the participants' views of the world are experienced as a form of *qualia* then their way of experiencing the world will be distinctive. Second, Heidegger felt that many time-honoured terms such as 'subjectivity' and 'consciousness' were prejudicial to his project because he was seeking to move past such constructions and begin theorising from the person. Third, is that he saw *Dasein* as a theoretical *tabula rasa*

which was devoid of any pre-conceptions and so could accrue any signification that Heidegger wished. It should be noted that Heidegger is not suggesting that we 'have' *Dasein* but rather from being in the world at a moment in time and in a place, we 'are' *Dasein*. Context is significant as there cannot be a *Dasein* without a world and what *Dasein* is can only be read off the world as it acts in the world (Wrathall, 2005). In other words that *Dasein* is to an extent public in the sense that what people do and say is assumed to be reflective of how they are 'being' and can be 'read' by others. This is an important point for this research as the participants are all teachers in the same PE department and so are co-existing in a shared professional world. It is also a key idea in seeking to dissolve the separation between mind and the world. In this line of thought the person is seen as an agent in the world where all actions are simultaneously mindful and embodied (Crossley, 2001).

In thinking about *Dasein*, Heidegger proposed that our ways of existing must be seen within their historical and cultural context and understood with regard for the constitutive role of language. Therefore, he argued that the best that can be achieved is *interpretation* rather than *description* (Guigon, 1983). This perspective is supported by Ricoeur (1991) who posits the idea that hermeneutics, the philosophy of interpretation, is an indispensable element of phenomenology. It is worth noting that it has been claimed that Heidegger saw his work as more phenomenological than Husserl's. This is because Heidegger felt that Husserls' work was too theoretical and too abstract (Smith et.al. 2009). Hermeneutics as an epistemological position is fundamental to this study as it provides a means by which constructions (that by definition, may not be readily accessible to the participants themselves), can be interpreted. By employing levels of interpretation, it also means that interpretations of

personal theories that are located on the explicit theory and implicit theory continuum, can be made.

When applying phenomenological philosophy to psychology, the aim is to focus on people's perceptions of the world in which they live and what this means to them. In other words, with a focus on the lived experience (Dahlberg et al. 2008; Langdridge, 2007). Heidegger (1962) devoted much of *Being and Time* to a detailed consideration of what it means to be in the world. He felt that 'phenomenology' meant to 'let that which shows itself be seen from itself'. In other words, to concern ourselves with how things appear in our experience. This can be illustrated by considering how a physicist might try to persuade you that when you look at a bench, what you *really* see are light waves bouncing off the reflective surface of physical bodies. In this, her argument would be un-phenomenological, as she is confusing two different things. The first is the causal interaction of our bodies and objects in the world, and the second is what it is actually like to experience the world. The physicist's account thus strays from what you actually experience directly- park benches and people- and tries to reconstruct that experience in foreign terms because, in effect, it confuses experiences and causes (Wrathall, 2005). In this research there is no intention of making any judgement about the efficacy of any pedagogical practices that the participants articulate in the course of the field work. Nor will any attempt be made to evaluate their theories of learning. The purpose of this research is to make interpretations about the nature of their personal theories of learning and then, as a part of the process of analysis, situate them within the theoretical frame of the grand narrative theories identified in chapter 2.

Interpretative Phenomenological Analysis (IPA) requires the researcher to attend to the participants' life world and then develop interpretations which help to explain what it is like to be that person in a particular context. A key element of the research process is that of reflexivity which can be understood as the idea that because there cannot ever be a, "one-way street between the researcher and the object of study" (Alvesson and Skoldberg, 2000: 39). In other words, that the researcher will have invested in the research and will not come to any encounter without preconceptions. In 'Being and Time' Heidegger argues that in any encounter in the world, how it is understood, will be grounded in a particular conceptualisation of the object of interest (Mulhall, 2013). In a sense, this is essential as if we came to any subject completely free of preconception, it would almost certainly be impossible to grasp the object at all.

At its most basic, reflexivity can be seen as a consideration of the ways that the researcher may affect the research process (Yardley, 2008). It is vital for the researcher to aim to be as conscious and reflective about the ways that their questions, methods and their own subject position (as white/black, middle class/working class, insider/outsider) might impact on the knowledge produced (Langdridge, 2007). This is what Yardley (2008) refers to as a matter of transparency.

Because in interpretative phenomenology there is no attempt to 'bracket out' the researcher, there is a process that Findlay (2008) refers to as the 'dance' between reduction (bracketing out the researchers' preconceptions) and reflexivity, where the researcher is building interpretations. At this stage of the process, the researcher must acknowledge their own perceptions of the participants' responses, always going

back to the participant's words to ensure that the interpretations, as far as possible, are grounded in the participant's life world, or the 'return to the thing itself' (Husserl, 1931b). However, it has already been established that interpretive phenomenology grew out of dissatisfaction with descriptive phenomenology. There emerged scepticism about the possibility of being able to move the enquirer away from the distraction and misdirection of the assumptions they brought to the project (Smith et. al. 2009). The series of reductions was seen as deeply problematic by more contemporary phenomenologists, "The most important lesson that the reduction teaches us is the impossibility of a complete reduction" (Merleau–Ponty, 1962: xiv). However, it was also accepted that to get to understand how the *other* experiences the world and to be able to get into a position where interpretations can be made, the researcher must be aware of their own presuppositions and make the 'familiar strange' (Holliday, 2002), "In order to see the world and grasp it as paradoxical we must break with our familiar acceptance of it" (Merleau-Ponty, 1962: xiv).

5.3 Intentionality

In employing a research method based in phenomenology, to make interpretations about teachers' personal theories of learning, attention needs to be given to the notion of 'intentionality' which is a central characteristic of phenomenology:

> "That every act of consciousness that we perform, every experience that we have is intentional. It is essentially consciousness of 'something'" (Sokolowski, 2000: 8).

It has been established that Intentionality is the relationship between what is experienced (noema) and the way it is experienced (noesis) (Langdridge, 2007). In this research the participants' ways of experiencing learning are the *noema* and *how* they

experience is the *noesis*. At this point it must be emphasised that experience of the noema, in this research, is a focus on how the participating teachers make sense of their interactions with their students in terms of how they think that learning happens. Of course, in trying to capture the way that the world is seen by an individual, phenomenology is concerned with developing knowledge that is non-propositional (Willig, 2004):

> "Husserl decided to start with the problem of how objects and events appeared to consciousness since nothing could even be spoken about or witnessed if it did not come through someone's consciousness. It is to be noted here that 'consciousness' is to be understood not as a limited awareness, but in a much broader sense which would also include preconscious and unconscious processes"
>
> (Giorgi and Giorgi, 2008: 26).

The notion of 'preconscious' whilst not 'repressed' in Freudian terms, can be applied to thoughts that are unconscious but given appropriate circumstances are capable of being brought to consciousness. Given this, there is a strong argument to suggest that the relationship between the *noema* and the *noesis* can exist at an implicit level as well as an explicit one. A point of interest is to consider the extent to which all mental phenomena might be seen as intentional. There is an argument to suggest that feelings and sensations are not intentional in that they are not directed towards an object (Searle, 1983). However, an awareness of a feeling and sensing something *is* intentional because it is the experience of *something* -which need not be a tangible object - but it is the phenomenon itself, which is experienced. In this, Brentano's

(1973) proposal that all mental acts are intentional seems to hold (Spinelli, 2005). To be clear, in this research the intentionality lies between the participants' perceptions of how they feel learning occurs and their articulation of those perceptions (Noesis). Therefore, what is sought in this research is to make interpretations about how the *noesis* is articulated.

5.4 Authenticity

In considering the nature of *dasein* Heidegger (1962) argues that it is absorbed in the exigencies of everyday life with little space for reflecting on the significance of living (Guignon, 1983). Heidegger referred to this as being in a state where we 'follow the chatter' and for the most part live in an unreflected state taking the world as given to us. This can be seen as similar to Husserl's notion of the natural attitude which is a term, he used to describe our 'everyday way of seeing the world' (Langdridge, 2007). In this mode Heidegger felt that we are living in an inauthentic manner. However, Authenticity is when *dasein* no longer takes the world for granted but instead recognises the fundamental of reality of being (Langdridge, 2007).

"In this everyday mode we have not really found ourselves—in fact, we have lost our true selves, our authentic selves. In this mode, we are inauthentic." (Sherman, 2009: 2)

It is important to say that this is not intended to be pejorative in any way rather it is intended to be a way to describe a way of being in the world.

Heidegger (1962) used the term 'authenticity' to refer to what he saw as the capacity to be fully human and not to being true to one's unique inner nature (Guignon, 2008).

Authenticity might also be thought of as a virtue, and interesting questions arise whether such a virtue should be regarded primarily as a personal or as a social virtue.

Recent studies suggest that teachers in the UK are working long hours and have limited access to continuing professional development (Sellen, 2016) while a survey by Green (2018) found that the demands on student teachers was a major cause for them leaving teacher education courses. Interestingly a survey carried out by Walker et al (2019) sponsored by the Dfe focussed its headline findings on saying that there was a trend for teacher hours to be reduced from a previous survey but they are less inclined to say whether this is still too high. This has ramifications for this research as it is possible that the participating teachers may be living their professional lives in an 'inauthentic manner' for some of the time because they are dealing with high demands and working long hours. The challenge for the research is to identify moments of inauthenticity and authenticity as this will inform their theories of learning.

5.5 Intentionality, consciousness and language

This research is seeking to make interpretations about the teachers' theories of learning by carrying out an analysis of their verbal reports. The efficacy for such an approach lies in the idea that speech is an intentional act (Searle, 1983; Merleau-Ponty, 1962). It is important not view 'intentionality' as synonymous with consciousness in the sense of awareness. That is to say that, when the participants are talking about how they experience aspects of children's learning, that it can be expected what they say will reflect how they understand this. In addition, that this can be read on the level of the explicit message but also that what they say may be interpreted as having implicit implications as 'words are never empty' (Merleau- Ponty, 2003).

Husserl started with the problem of how objects and events appeared to consciousness, arguing that nothing could even be spoken about or witnessed if it did not come through someone's consciousness. In this, *consciousness* must be seen as a heterogeneous mental state as it is important to recall that *consciousness* is to be understood not as a limited awareness, but in a much broader sense, which include preconscious and unconscious processes (Giorgi and Giorgi, 2008). In Phenomenological terms, 'Preconscious' refers to the reservoir of all that we can remember, or all that can be recalled, given appropriate circumstances. In reflecting on issues related to 'immediate' consciousness, it has been argued that while it involves a type of certainty, this certainty does not necessarily constitute true self-knowledge (Joy, 2008). In other words, we might well reflect on aspects of our stream of consciousness but, that reflection will be focused on particular aspects and may miss other elements, hence it is, at best, a partial view. So, reflection may be seen as pointing back to that which is un-reflected with the intention of escaping from itself (Ricoeur, 1974). In this, Ricoeur is positing the idea that given the circumstances, the sub-conscious 'escapes' and becomes conscious. This is a perspective that is supported by Merleau-Ponty (1962) who argues that the process of reflection on experiences can affect the state of consciousness:

> "When I begin to reflect my reflection bears upon an unreflective experience; moreover, my reflection cannot be unaware of itself as an event, and so it appears to itself in the light of a truly creative act, of a changed structure of consciousness..." (Merleau-Ponty, 1962: xi).

In other words, it is argued that it is possible for a person to bring unconscious notions to conscious awareness, by attending to specific sections of their perceptual field, a

phenomenon that psychologists refer to as selective attention (Howarth and Gillham, 1981), or the varying currents within ones' stream of consciousness. The implication for this study is that the relationship between noema and noesis, in this case, how the participants experience pupil learning in PE, will exist in varying states of consciousness. Hence the way that personal theories have sometimes been tacitly presented as a stark binary between being explicit and implicit has to be challenged.

A crucial point to be made here is that it has been established that phenomenology is a concern with consciousness, that it is assumed that theories of learning may be held as espoused theories or as implicit theories and that the data for interpretation will be verbal reports. It should be remembered that Heidegger saw language as more than a tool for communication but also as a way we constitute our consciousness of the world (Guignon, 1983). Another way to conceptualise the relationship between states of consciousness and language is to say that, "…. consciousness does not constitute language it appropriates it" (Baldwin, 2004: 202). That is to say it is not so much that language reveals a persons world view but that their world view is 'captured' by language.

This is a study that is concerned with the participating teachers' personal theories of learning and as such, relies on interpretations of their verbal accounts. Husserl (1931) suggested that 'we live in our acts' by which he meant that our beliefs about the world are represented in the ways that we function in the world. However, in this instance, there is a question to ask about the extent to which teachers base the act of teaching on theories, explicit or implicit, of how children learn or is it a series of socially constructed rituals. These rituals being designed to meet the 'flow of expectations' as

demanded by custom and practice, in the professional context and the policy landscape?

While it is axiomatic that thought, or states of mind and speech are closely interrelated, they are not the same and therefore there will be degrees of asymmetry that need to be explored, "Speech acts must not only resemble the thoughts they express; they must differ in important ways (Rosenthal, 2005: 71). By this, he means that speech cannot occur without thought, but thought unexpressed in speech and thinking can occur. Of course, the problem of whether we can think about of aspects of consciousness that we cannot articulate was one that exercised Wittgenstein (1963). Merleau-Ponty has also considered this:

> "It is, indeed obvious that speech cannot be regarded as a mere clothing for thought, or expression as the translation, into an arbitrary system of symbols, of a meaning already clear to itself" (Merleau-Ponty, 1962: 452).

In this Merleau-Ponty is saying that we might have ill formed thoughts that we are not readily able to articulate. In phenomenology Merleau-Ponty felt that the relationship between mental states and speech was a highly congruent one,

> "…since it is thought that which has meaning, the word remaining an empty container. It is merely a phenomenon of articulation, of sound, or the consciousness of such a phenomenon, but in any case, language is but an external accompaniment of thought" (Merleau-Ponty, 1962: 205-206).

Related to this Searle (2002) proposes that speaking is an intentional act as when we talk, we are always talking about *something*. It follows then that in this project the *noesis* is what is sought in the interviews. The participating teachers' verbal reports

can be seen as possessing congruency with their mental states but that not all their mental states will be available for analysis. Therefore, attending to language is a valid way to make interpretations about the participating teachers' espoused theories (explicit) as well as those that exist in a more implicit state.

5.6 Interpretive Phenomenology and discourse

Discourses have been described as practices that are not only used to describe objects in the world they also help to construct those objects (Foucault, 1972). Burr 2005: 64) defines discourse as:

> "A discourse refers to a set of statements, metaphors, representations, images stories, statements and so on that in some way together produce a particular version of events."

Guignon (1983) argues that Heidegger understood language to serve to enable communication and also to as a way to constitute a person's reality. That is important to this research as the discourses that the participants draw upon can be seen to both act as a form of communication and also as a means whereby, they 'construct' a view of the world. A key idea here then, related to the research approach is that Heidegger felt that discourse was the way in which the meaning of the world is manifested for *Dasien* (Langdridge, 2007). How we understand the world and by implication out 'being in the world' can only be made visible through discourse. Heidegger (1978: 217) later argued that language was "the house of being". While Heidegger was sympathetic to other forms of language analysis such as discourse analysis, as might be expected, he felt that discourse was a fundamental element is how our 'being in the world' can be disclosed. Iwuagwu (2011) argues that Heidegger saw discourse as a mode of being in the world. Indeed Heidegger (1962: 172) states that discourse is the, "..significant articulation of the intelligibility of being-in-the-world". This can be seen as being congruent with the idea that consciousness does not constitute language but that it appropriates it. This has important implications for this research as the discourses that are used by the participants are the means by which they can make their being-in-the-world visible.

5.7 Previous research into personal theories

The challenge for the method in this research is not just to reveal the participants' personal theories, but to be in a position to be able to make interpretations about constructions that lie beyond articulation, and yet are reliant on language to reveal them. In considering previous empirical studies into implicit theories, the methods employed have tended to rely on statistical analysis of existing psychological inventories and questionnaires, rather than the in-depth qualitative approach to be employed in this study. In considering issues related to 'exactness' in social science research, it is suggested that the results of applying statistical method to the study of social phenomenon have, '…on the whole been 'insignificant' and disappointing' (Hammersley, 1989: 114). In addition, previous studies into implicit theories have tended to employ nomothetic approaches that are concerned with making claims which can be generalised to wider populations. There have been comparatively few empirical investigations into personal theories. In a qualitative study that sought to elicit student teachers' personal theories with 32, Year 1 B.Ed. primary student teachers, Tann (1993) generated data through analysis of the student teachers' student group reflections, lesson plans and resources. Ommundsen (2001), carried out a study that investigated pupils' affective responses in physical education classes with a particular focus on the association of implicit theories of ability and achievement goals. This study drew on 217, ninth grade pupils in Norway and used hierarchical and moderated regression analysis of the various questionnaires. In an investigation into the relationship between epistemological beliefs, implicit theories of intelligence, and self-regulated learning among post-secondary business administration students, student teachers and education students, Braten and Stromso (2005), employed a Schommer epistemological questionnaire. In a study

with one student teacher that sought to understand the development of personal theories while on an Initial Teacher Education course, Sendan and Roberts (1998), used a method based within Personal Construct Psychology (PCP).

Therefore, it can be concluded that research into teachers' personal theories of learning is not a well-established field. What research there has been has tended to use qunatative methodologies and so this study has the potential to make a significant contribution to the field.

5.8 Making the case for Interpretative Phenomenological Analysis (IPA)

IPA is concerned with cognition and it is proposed that IPA is compatible with a social cognition paradigm because it subscribes to a belief in, and a concern with, the chain of connection between verbal report, cognition and physical state' (Smith et al., 1999: 219). In other words, the assumption that people carry sets of cognitions that they use to make sense of their world (Willig, 2004). IPA starts from the position that the accounts people give, will tell us something about their more private thoughts, feelings and perspectives. Therefore, in this study there is an assumption that it is possible to make interpretations about the participants' theories of learning through analysis of the interview transcripts. While there is likely to be 'distortion' in the sense that participants may well wish to present themselves in particular ways that in itself is significant. The analysis and interpretation of their verbal accounts offer a valid source of data to develop understandings about their personal theories of learning. Indeed, it is to be expected that multiple interpretations may be possible.

Within an interpretative phenomenological paradigm, language is seen as constitutive, "The linguistic turn has insisted that truths are textual; that the way we

see the world is 'always already' infected by language" (MacLure, 2003: 4). Heidegger advanced the case that, "On the constitutive view of language, it is the 'grammar' of our intentional language that determines the *essence* or *being* of the entities found in the world" (Guigon, 1983: 129). He also proposes that "The world that is constituted by our everyday language of intentions and goals, is one in which entities are *ontologically* defined by their internal relations to other entities within the context of interest and goals projected by agents" (Guigon, 1983: 129). Willig (2008) reminds us that language is indexical- meaning it is dependent upon the context within which it is used.

IPA may be seen as the bringing together of two branches of philosophy, namely, phenomenology and hermeneutics (Smith et. al., 2009). IPA belongs to an epistemological canon which takes a relativist ontological stance (Brocki and Wearden, 2006). 'Relativist' refers to the idea that conceptions of truth or moral values are never absolute, while 'ontological' refers to the essence of being or existence. In this study it is assumed that the participants inhabit their teaching worlds in ways that are unique to them, and the research seeks to understand how they see learning.

The key difference between IPA, grounded theory (GT) and discourse analysis (DA) is an epistemological one. IPA is concerned with seeking knowledge about how people see the world and that people's accounts reveal something about private thoughts and feelings. IPA assumes that participants, "... seek to interpret their experiences into some form that is understandable to them" (Brocki and Wearden, 2006: 88), and so the interview may be seen as a process by which the participants describe their life world and, to an extent, create it through language. Discourse

analysis is concerned with how events of reality are manufactured, negotiated and deployed in conversation and as such does not seek to produce knowledge of things but an understanding of the processes by which they are *talked* into being. Grounded theory is a method that is designed to identify and explicate contextualised social processes. In GT data gathering and analysis aim to allow concepts and categories to *emerge* from the data without preconceptions and as such is underpinned by a *realist* orientation. Each research method will have underlying assumptions that it makes about the world. IPA, on the other hand, is concerned with participants' subjective experiences of the world and assumes that people can 'experience' the same objective experience in radically different ways. A phenomenological view does not deny that to some degree, many of us share similar interpretations of reality. Evidence that we do share in our mental frames and models of experience is available in abundance and should not be discounted nor even disputed (Spinelli, 2005). This may be seen as analogous with philosophical perspectives of 'truth as consensus' as proposed by Bridges (2003). Indeed, phenomenologists place equal importance upon structured investigations that seek to clarify our understanding of the interpretative *invariant structures* shared by all members of our species (Moran, 2000; Spinelli, 2005). This is because, from a phenomenological perspective, it is these invariant structures that provide the foundational bases upon which our unique interpretations of reality are formed. All that is being argued for now is that, regardless of how singular or generally shared our interpretations of the world may seem to be, they remain *interpretations* (Spinelli, 2005; Smith et. al., 2009).

In terms of the researcher's role, IPA acknowledges that any insights gained from the analysis of a text, in this case the interview transcripts, will necessarily be a product

of the researcher's interpretation. This is fundamental as clearly, while such research is interested in how the participants view learning, it is not possible to look inside a person's head.   It requires, therefore, a process of engagement, analysis and interpretation (Smith, 2009). Although IPA aims to understand the participants' life world it also recognises that this is only possible through the researcher's engagement with, and interpretations of, their accounts. DA emphasises the constructive and functional nature of language and therefore the role of the researcher is necessarily that of *author.* That is to say, DA acknowledges the researcher's active role in the construction of the research. In employing a GT research approach the researcher is essentially acting as a witness and as such, must be careful not to import their own preconceptions into the process. In this case, the researcher's role is to present an account of the social reality in a systematic manner.

In summary, it is important to acknowledge that DA is a heterogeneous method which can be undertaken in a number of ways (Wetherall et al. 2001). Whilst DA is both 'constructed' and 'constructive' through language (Potter and Wetherall, 1987), it is a method that is less interested in the cognition behind the language and therefore may be seen to be limited in terms of revealing participants' implicit theories. GT assumes that there will be an objective reality that can be identified through repeated analysis and theory-building until a point of saturation is reached (Charmaz, 2014). However, as a potential method for this study, it is potentially problematic as it is likely that the implicit theories that the participants hold, may well be inconsistent. In studying 'Lay theories' in social sciences, Furnham (1988: 8-9) noted that "People may also hold various beliefs about different aspects of social life whose implications or

assumptions are mutually contradictory, but not realise that." So it may be argued that IPA, a method that is concerned with exploring in detail how participants make sense of their worlds through interpretation of their language (Smith and Osborn, 2008), is well suited to researching personal theories.

5.9 Quality indicators of IPA studies

Quality in research is always marked by a concern with such factors as validity and reliability (Robson, 1993; Yin, 2009; Silverman, 2010). In IPA, following a review of research employing IPA between 1996 and 2008, Smith (2009) identified criteria for evaluating IPA research which he argued, fell into three categories. The first criterion is that of consistency with IPA. In other words, that the study is seeking to listen carefully to how the participant is experiencing the phenomenon under consideration and that the data generation is marked by the researcher listening attentively and being prepared to see the phenomenon from the participants' perspective. Second, there must be transparency about the processes undertaken by the researcher. This includes the development of the research instrument, the data generation and the lines of thought that underpin the interpretations. Third, the evidence base for any claims that are made are drawn from the corpus of data that is considered to be sufficient. This involves a consideration of prevalence, representativeness and variability. Prevalence refers to how much of the thing is there and how it is presented in the corpus of the data. This might involve including the participants' words in the research account. Representation is concerned with the extent to which, what is sought exists in the corpus of data. In other words, have all the participants been fairly treated or are the emerging themes over-reliant on the words of a few participants. In IPA there is always a balance to be struck between convergence and divergence. In

other words, how much is there (density) and how does this play out with each participant. In such ideographic studies there should be degrees of variation, as even in a small sample of relatively homogenous participants it is probable that how they see their worlds will be subject to considerable variations. There will be much to be learned from such nuances (Smith, 2009).

5.10 The 'dance' between reduction and reflexivity

In order to carry out the analysis, the participants' views need to be established through careful questioning. At this stage the researcher tries to get as close to the participant as possible. There also has to be a stage of acknowledging the researcher's own position. The relationship between reduction and reflexivity is described by Findlay (2008) as a 'dance' and is illustrated in Diagram 5.1. At the outset in the interview, the researcher tries to get as close to the participant as possible (top arrow in diagram) by listening carefully, and through judicious use of prompts and empathy, seeks to allow the participant (P) to reveal their perspectives and as far as possible suspend their own preconceptions. In this way there is a process of reduction or bracketing operating. In the next stage the researcher brings the focus back to themselves (bottom arrow in diagram) and at that point tries to acknowledge their own fore understandings and so, is applying a reflexive focus to the process. Because this needs to be an iterative process the researcher can then oscillate, or 'dance', between their own perspectives and the participants' words (*p*).

Researcher

Participant's words

(*p*)

P= Participant themselves
p= Participant's words
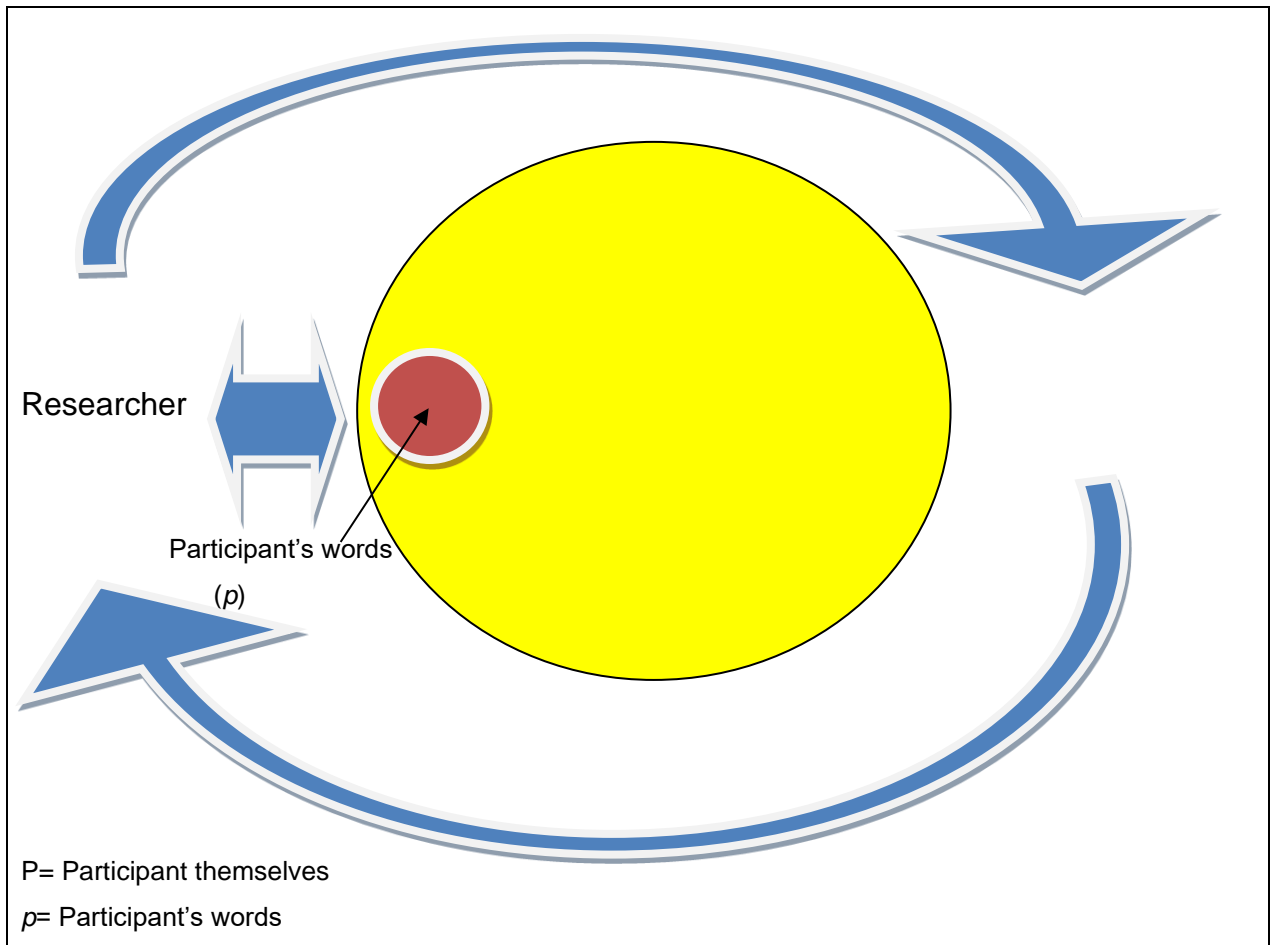
Diagram 5.1 – Diagram to illustrate the hermeneutic circle.

By continually going back to the participants' words the researcher tries to keep the interpretations as firmly based in the participants' life world as possible. In seeking to understand how meaning is generated or interpreted, Ricoeur (1998) identified two essential approaches. What he referred to as a demythologizing, or an empathetic element and a demystifying, or suspicion element. Demythologizing is the process of empathetic engagement where there is a fusion of the meanings between that which is brought to the analysis, and the participants' meanings, as understood by the researcher. In other words, we engage with the text seeking to make our pre-understandings as explicit as possible. In contrast to the demythologising moment is the demystifying moment. The demystifying moment is one of suspicion, or what

Ricoeur refers to as a 'revolutionary act' where the meanings beneath the surface are sought (Langdridge, 2007). As such, the process of analysis in IPA draws on the hermeneutics of suspicion and empathy.

5.11 Conclusions

In this chapter the case for employing IPA, a method based in phenomenology has been advanced. The argument being that phenomenology is a philosophy that is concerned solely with human consciousness (Craib, 1992; Lind, 1986) and that employing IPA is a highly appropriate way to conduct the research. This is because the assumption is that language is both 'constitutive' related to data generation and data analysis will be presented.

Chapter 6 - Research Method and Data Analysis

6.1 Introduction

In chapter 6 a rationale for employing a phenomenological methodology was advanced. The case was made that IPA may be seen as the fusion of two branches of philosophy, namely phenomenology and hermeneutics. The rationale for using this branch of philosophy is the belief that first person accounts of life experience are valid and worthy of study (Langdridge, 2007). IPA, then, belongs to an epistemological paradigm that takes a relativist ontological stance. In this study it is assumed that the participants inhabit their teaching worlds in ways that are unique to them, experiencing the same phenomenon in radically different ways (Wrathall, 2005; Zahavi, 2019), and this research seeks to understand how the participants in a PE department in one school, conceptualise learning.

As a method, IPA is concerned with exploring how participants make sense of their worlds through the interpretation of their language (Smith and Osborn, 2008). As such, it is a valid method for researching personal theories.   In this chapter the specifics of the methods and, in particular, the fine detail of the manner in which IPA was employed in generating and analysing the data, will be described.

6.2 Ideography - case study

It was previously established that IPA draws upon phenomenology, hermeneutics and ideography. Ideography is concerned with *the particular* (Smith et al., 2009) and can be seen as analogous with case study. It has been argued that case study is justified when it is used to describe and investigate something intrinsically interesting and Yin (1989) reminds us that case study, or an investigation into *the particular*, can be used to demonstrate existence, not simply incidence. Arguably, all research is case study as it involves the investigation of some unit or set of units in relation to which data is generated and analysed (Hammersley et al., 2000). IPA's commitment to the *particular* operates at two levels. First, there is a commitment to the specific case - in the sense of detail - and therefore, IPA is characterised by in-depth analysis. Second, IPA is committed to understanding how particular phenomena are understood from the perspective of a specific group of people, in a particular context (Smith et al., 2009). In this case it is about how learning appears in the consciousness of the four PE

teachers at Northview Academy. It has been suggested that a weakness of case study research may be that findings cannot be generalised to wider populations and this has been taken to be synonymous with a lack of rigour (Yin, 2003). While there is no explicit intention to generalise any findings to wider populations - as there might be with nomothetic research - issues of generalisation are a concern for case study research:

> "Case study research may be seen as an empirical enquiry that investigates a contemporary phenomenon within its real-life context especially when the boundaries between the phenomenon and the context are not clearly evident" (Yin, 2003: 13).

Issues of generalisation can be described as 'fuzzy' (Bassey, 1999), by which Bassey means that the findings of research may enter the public domain with appropriate caveats. Bassey also proposes that fuzzy generalisations are a feature of case study research, or research into singularities, where he argues that phenomenon found in small studies may well be found in similar situations.

6.3 The research site

The research site was 'Northview Academy' an academy with a specialism in Business. At the time of the fieldwork the school had between 170- 200 children in each year group from years 7-11 and approximately 180 children in the sixth form. The total on roll was approximately 850.

The school had a range of facilities for learning in physical education. During school hours (08.50-3.00) the PE Department had the use of a sports hall (4 badminton courts), a school hall, extensive school fields and a flood lit 3G artificial pitch. The school was also the site of a football academy that had some call on the 3G pitch in the day. The head of the academy, a qualified PE teacher, also taught some lessons at the school. The PE department consisted of 5 teachers with a specialist qualification in PE. All of the teachers in the PE department except Jude, had some leadership responsibility outside of the PE department. There were also a few lessons each week taught by a member of the senior management team who was a PE specialist.

The majority of pupils at the school were of white British heritage and very few pupils are considered to have language problems. The school's curriculum provision has been extended in years 10 and 11 and in the sixth form the provision has been extended

through partnerships with local schools. The school also has links with a number of local businesses. Northview Academy gained 'investors in people' status in 2009.

Northview Academy has a strong international dimension and held a British Council Schools Award, granted in 2011 and reaccredited three times since. The school had prioritised careers advice and had received an 'Investor in Careers' award in 2007, a status symbol which it has retained ever since. In addition, a vocational centre was built in 2007 and in 2014 The Northview Academy buildings were given a £1.2m makeover resulting in a new façade.

The most recent Ofsted inspections showed that, by external modes of accountability, the school was considered to be doing well.

December 2009- Full inspection	Overall grade- Good
	The school was graded as outstanding in every category except community cohesion
April 2011- Curriculum and development visit	The school was deemed to be 'on track' in every respect.
	The headline findings were that the effectiveness of PSHE education was outstanding.
Feb 2012- Academy conversion	Academy conversion
	The school becomes an academy 'converter. Upon conversion to academy status the existing school closes and a new school opens in its place.
May 2013– Full inspection	Overall judgement 2 (good).
	The headline findings were:
	• examination results are good in an increasing wide range of subjects.
	• students were deemed to be making good progress in lessons
	• teaching is typically good and sometimes outstanding.
	• students are exceptionally well cared for and feel safe.

Table 6.1 – Summary of Ofsted reports for Northview Academy

The main reason that Northview Academy was chosen as the research site was that the PE department were generally keen to be involved in such a project. It has been recommended by Smith et al. (2009) that in ideographic research it can be a positive aspect is there is an element of homogeneity about the participants. More complete details of the participants are given in section 6.4.

6.4 The participants

In IPA studies, participants need to be selected on the basis that they can allow the researcher sufficient access to the phenomenon under consideration (Smith et al., 2009). Because IPA is ideographic and concerned with in-depth examination of *the particular*, sample sizes are usually small. There tends to be an assumption of homogeneity because the researcher will be trying to find a sample for which the research question will be meaningful and where convergence and divergence can be examined in detail (Smith and Osborn, 2008).

The question of how big a sample needs to be can be a contested one but there is a growing tradition of IPA studies with small numbers of participants. In IPA studies undertaken by, and published in referred journals to date, Eatough and Smith (2006); Glasscoe and Smith (2008); Hunt and Smith (2004); Osborn and Smith (2006), worked with one participant only. On the other hand, Smith (1999) engaged three participants. Studies with a larger group of participants include Smith et al. (2002) with five participants, Smith and Osborn (2007) with six participants, and Thompson et al. (2002) with seven participants.

In order to help the reader to contextualise this study, a brief biographical overview of each of the seven participants has been included in the following section. It is anticipated that further details about each participant are best left to be considered in the fine grain of analysis that is the basis for subsequent chapters. In these chapters, interpretations about their teaching *Dasein* will be offered as a means to make inferences about their personal theories of learning.

6.4.1 'Darcie'

Teaching biography

Darcie undertook a PGCE in 2004-2005 having graduated in Sports Science in a University in the South East of England in 2004. Once she completed her PGCE in 2005 she worked in a school in the area for 2 years covering maternity leave. She then gained a full-time position at Northview Academy and took up her post in September, 2007.

My professional relationship with the participant

Darcie was a former PGCE student on the course where I was the subject tutor.

6.4.2 'Jude'
Teaching biography

Jude completed a Sports Science degree in 2007 and then went straight to a PGCE which he completed in 2008. He was appointed to Northview Academy in September, 2008 and had been teaching at the school since then. In 2014 he was promoted to head of department.

My professional relationship with the participant

'Jude' was a teacher who I had met when visiting PGCE students placed at the school but he was not a mentor and I have not observed any students working with his classes.

6.4.3 'Dylan'

Teaching biography

Dylan had graduated from a University in the Midlands in 1998. He had worked in a school in the area until 2010. He then took up a post at Northview Academy in September, 2010.

My professional relationship with the participant

Dylan had been a subject mentor and he and I had worked in partnership with a number of student teachers.

6.4.4 'Ruby'

Teaching biography

Ruby completed her PGCE in 1999. She was appointed to Northview Academy school in September 1999 and had taught there since then.

My professional relationship with the participant

I knew Ruby as she had been a subject mentor on the PGCE course where I was the subject tutor. As such, I had worked with her when I visited PE students on placement at the Academy. Ruby had also been a mentor who had helped with interviews for prospective PGCE students.

6.5 Ethical considerations

British Educational Research Association 2011 (BERA) guidelines recommend that in designing research, the researcher must exercise responsibility in four areas. First, responsibility to the participants; second, responsibility to any sponsors of the research; third, responsibility to the community of Educational Researchers; and finally, responsibility to educational professionals, policy makers and the general public. It must also be remembered that qualitative research is a dynamic process and so ethical issues need to be monitored throughout the whole process of the research (Smith et al., 2009). These considerations are amplified below.

6.5.1 Responsibility to the participants

In considering the ethical implications of research the British Psychological Society (BPS) recommend that in terms of responsibility to the participants   the researcher needs to address four key issues. Namely, consent, confidentiality and anonymity, discomfort and harm and deception (Langdridge, 2007).

6.5.1(a) Consent

At the start of each interview the participants in this study were reminded that they were taking part of their own free will and that they might withdraw at any time, "It should be clear from the start that initial consent is just that, and that participants have the right to withdraw at any time, even retrospectively" (Banister et al., 1999: 153). In line with this advice, issues regarding consent were revisited at the start of the second and third stages of the fieldwork (Smith et al., 2009). After each interview the transcription was e-mailed to the participants and they were asked if there were any sections that they wished to be removed or if there was anything that could be added, that they wished that they had said. Throughout the project, there were no participant responses of this nature. Outside of the recorded section of the interview, Jude and Dylan were asked if they had noted anything about the transcripts, but they gave the impression was that the transcriptions had not been read very closely. Darcie and Ruby were not asked for their views on their transcriptions.

6.5.1 (b) Confidentiality and anonymity

It is important to draw a distinction between 'confidentiality' and 'anonymity' (Wright and O'Flynn, 2012). Drawing on the work of Babble (2010) they define anonymity as

the situation where even the researcher may not know who the participants are, not usually an option in qualitative research. Confidentiality is where the participants are known to the researcher but every effort is made to ensure that they are not identified in the writing. In order to maintain the confidentiality of the school it was given the name Northview Academy. Because qualitative data is not reducible to numbers, but based on holistic analysis of what is personal and idiosyncratic material, issues of confidentiality are especially important (Mason, 2002). Therefore, no mention is made of the location of Northview Academy other than to say it is a school in the United Kingdom (UK). Related to this, it is important to ensure that the individual participants' anonymity is preserved and so each participant was given a pseudonym. How researchers can guarantee confidentiality is a vexed question as given the personal views of the participants, it may well be possible for them to recognise themselves in the work. In a sense, 'confidentiality' implies that nobody else will see it and this is not the case. The counter to this is 'presentation' and it is hoped that most participants would be pleased to have their views represented in academic work although not at the expense of anonymity (Smith et al., 2009). In this research as part of the consent process the participants were told that their words might be directly quoted in the thesis and any associated papers but that the name of the educational setting would be changed and that they would be given a pseudonym.

6.5.1(c) Discomfort and harm

In terms of discomfort and harm, classical ethical pitfalls include exploitation, deception, revealing identities, fraternising with groups we dislike and participating in dubious bargains (Silverman, 2006). A problem for researchers can be when the participants are asked to talk about particularly personal or 'sensitive issues' (Smith et al., 2009). In this research it was felt that, for the participants, talking about their professional views would not be overly intrusive and each participant had the opportunity to view the transcript of their interview and ask to have sensitive issues removed, should they wish this in retrospect.

6.5.1(d) Deception

Issues of deception are principally related to matters around confidentiality and the purposes of the research (Mason, 1996), "Deception is most likely to be a problem in research when it causes the subjects to unknowingly expose themselves to harm"

(Silverman, 2006: 318). A possible prohibitor of deceit in research of this nature, is the fact that the aim of phenomenological research is to try and find out how the participants see their world. Therefore, the researcher, through listening carefully (Spinelli, 2005; Giorgi and Giorgi, 2008; Frechette et al., 2020), should be seeking to understand how the participants see their worlds though asking questions that allow them to talk about how they see the 'object of consciousness', in this case, how they feel that learning happens. Therefore, there is no 'agenda' as such, other than to establish their perspectives on the topic under consideration.

In introducing the project, the participants were told that the research was concerned with asking them about their perceptions of learning. They were told that the interviews would be transcribed and that they might be quoted directly in the thesis, papers and publications based on this work. They all gave permission.

6.6 The Role of the researcher

In terms of the researcher's influence, IPA acknowledges that by virtue of the fact that the researcher has constructed the questions, indeed the entire encounter, their effect must be understood and acknowledged. In terms of the researcher's role, IPA requires that any insights gained from the analysis of a transcript will be understood as a product of the researcher's interpretation (Alvesson and Skoldberg, 2000). This is a fundamental issue, as while such research is interested in how the participants view learning, it is not possible to look inside a person's head – rather, it requires a process of engagement, analysis and interpretation (Smith et al., 2009). Although IPA aims to understand the participants' life world it also recognises that this is only possible through the researcher's engagement with, and interpretations of, their accounts.

6.7 Researcher's relation to the research site

Northview Academy is a setting that has provided school placements for PE student teachers since 1998. In my role as the University PE Subject Tutor, I have been working with the school since I started as a PGCE tutor in 2000 until 2015. Therefore, this is a school where I am familiar with the PE department, through visiting student teachers who have been placed there for their school experience. Both Ruby and Dylan have been subject mentors.

6.8 Reflexive statement

Because the researcher is involved with deciding the focus of the research, carrying out the field work and then interpreting the transcriptions, the researcher in IPA is on the 'inside' (Willig, 2001) and as was outlined in chapter 5, this means a reflexive attitude is required by the researcher (Langdridge, 2007). Frechette et al. (2020) refer to this as a 'horizon of significance'. The idea being that every persons' world is a, "…'horizon' of meanings, which signifies that it is determined by its outlook at any given occasion..." (Alvesson and Skoldberg, 2000). In thinking of that, in this research the field work and the interpretations will be determined by the researcher's outlook, or to put in a more phenomenological way to their fore-understandings. Because there is no obligation for the researcher to be 'objective' it is important that as far as possible, the reader can see the researcher 'seeing'. In many ways this can be viewed as an example of the 'phenomenological attitude' being applied in an empirical setting. The phenomenological attitude is described by Findlay (2008: 1) as a process of, "… retaining a wonder and openness to the world while reflexively restraining pre-understandings". She goes on to say,

> "The phenomenological process, in this view, does not involve a researcher who is striving to be objective, distanced or detached. Instead the researcher is fully involved, interested and open to what may appear." (Findlay, 2008: 3).

In the following section there is a reflexive account which seeks to address some questions recommended by Langdridge (2007). The statement was started in 2006 and has been redrafted up until the completion of the first draft of the finding's chapters for this thesis in October, 2020. What is included below is a statement that has been continually reworked and is intended to be an articulation of my stream of consciousness.

6.8.1 Personal background

When I started teaching in the early 1980s I quickly found that the only meaningful interactions with children were those which took place after school. There, one spent time with a few committed children who were coming to take part in activities in which I had high levels of personal investment. This was a perspective that was openly shared with some very experienced teachers, indeed their endorsement of such an attitude legitimised my own position for a while. I came to see this disposition as a

norm. It was consistent with my experiences while on teaching practice when the head of department told me that 'the extra-curricular' was the essence of the job. The lessons seemed to be a series of battles which consisted of attempting to help, often disinterested children, develop psychomotor skills in various contexts in a relatively disconnected manner. There were three main factors that helped me to reconceptualise my identity as a teacher. The first was that I came to see the absurdity of being in a profession where the only enjoyable element was the unpaid overtime that represented a small percentage of the time spent in the job. The main function of teaching lessons was relegated to the status of an irritating distraction. The second was when I realised that activities could be adapted to suit particular groups of children and also that the point of the exercise (of teaching) could be to develop a range of capacities in children such as self-efficacy, attitudes to PE, social skills, learning skills through the activities rather than teach them to become proficient in a series of relatively disconnected activities. This sparked a massive creative interest which helped me improve my teaching by shifting my focus from extra-curricular activities to lessons and also gave me a focus for development. It was also very evident that this ideological shift meant that I was able to develop better relationships with the children in my classes and so lessons tended to be more satisfying for the children and me. Coupled with this was a focus of my creativity energy on lessons rather than on the extra-curricular programmes.

Another source on interest was when curriculum time came under pressure in the early 1990's due to the inception of the national curriculum. I found myself having to marshal arguments to present at curriculum management meetings in order to justify (in vain) why PE time should not be cut to make way for other subjects. I noticed that the discourses that emerged when we were marshalling arguments, were qualitatively different from the customary discourses that we used to describe and share our practice. We suddenly began talking about PE as a vehicle for all manner of personal qualities such as character development. This was in stark contrast to the usual day-to-day conversations which centred more on the problems presented by break duty, covering absent colleagues and establishing where the hockey balls had gone. In the late 1990s I began to feel that the structure of the school and the pressures upon curriculum time and specialist spaces meant that learning in PE seemed to me, to be an activity that was not valued by the leadership team. I was getting the message that what they really valued was a comprehensive extra-

curricular programme. In 1996-1998 I finally got around to doing an MA in Education. I had long felt that there was more to learning than I was able to understand and this was an opportunity to read and discuss issues of interest which helped me develop my thinking but served to make me even more dissatisfied with the possibilities to help children learn in the context that I was working in. In 2000, I moved into Higher Education and became a PGCE tutor. When interviewing prospective students I noticed that when candidates were asked to say why PE should feature on the secondary curriculum, they would speak of aspects such as 'life-long learning', 'transferable skills', 'knowledge of health and fitness' and 'social skills such as leadership' but later when asked to say what might feature in a good PE Lesson their language tended to centre more on teacher control, learning skills and being competitive, so in effect parallel perceptions were being expressed.

I also began to take notice of the way that mentors tended to speak about students. For example, when asking how the students are doing, they tended to say things like 'puts the hours in'; 'ticks all the boxes' (or not); 'be up to date'; 'born teacher' or 'good subject knowledge.' What they rarely say is things like; 'asks hard questions'; 'understands how children learn' or 'Uses assessment to understand children's construing' or is 'critically reflective'. This suggests that learning, while it might be seen as central to teachers' work, and indeed this might be a perspective that teachers would espouse, that in fact, it tends to be, in some way subordinated to other aspects.

6.8.2 Why am I carrying out this study?
It is hard to say where this interest started but I think that it began when I was a secondary PE teacher and I gradually came to realise that I had nothing substantial to base my practice on. A key moment was studying for my MA in 1996-1998 where, for the first time, I began to consider the theories there are to explain how humans learn. This also helped me think about my own lessons. In particular, the idea that learning can be viewed as some kind of idiosyncratic sense making helped me enormously. I began to really change how I was teaching but I found it hard as there was nobody to talk to about this.

Later I became a tutor leading a PGCE course in secondary PE. Once I was settled, I began to notice that the PE students and the subject mentors drew principally on discourses of 'sport'; 'behaviour management'; 'teaching strategy' and 'efficiency'. This is important as Heidegger (1962) argued that 'discourse discloses being' and so this gave me an idea into how the subject appeared in their consciousness. What seemed missing was a discourse of learning. This was something I sought to address while in the role of subject tutor. It was also the case that for the most part, the 'project' of learning in PE was seen to be almost a profitable way to pass the time in lessons. There was no sense that the mentors or the student teachers saw that there was something bigger at stake. There was no sense that this was about education. How might, what was being learned in PE, contribute to children becoming educated?

Since 2006 I have been teaching a module on the masters in education programme that was focussed on 'effective learning' and then shifted to be called 'learning theories'. In that module I ask the students to looks at the nature of theory as an explanation (see chapter 2) and then the efficacy of disciplinary theories of learning to explain how humans learn. As the field work for this research has progressed, I have used extracts from the field work as a resource to stimulate discussion about personal theories of learning.

I am hoping that the thinking that I do in the process of the research and especially in reviewing the literature, will help me gain many insights.

6.8.3 What do I hope to achieve?
I hope to gain insights into phenomenology and also to consider what theories of learning the teachers hold. One of the challenges I find most interesting is that in effect, I am taking a philosophy and then using that to underpin empirical research. I am hoping that I will learn a great deal through addressing the problems this will inevitably present.

I very much hope that I will be able to develop some aspects of the thesis as a basis for deeper thinking that can be tested on the field in the future. I look forward to being able to publish papers based on the chapters of this thesis.

6.8.4 How I think my subject position will influence the analysis?

I find this really hard to say. Writing this now (July 2007) I see myself as a lecturer in education who happens to have a subject specialism in PE. Over the years I have come to see that the sporting discourse tends to dominate PE and especially since the late 1980s, I have been keen to try and employ more of an educational one. I have been especially keen to push back against the privileging of extra-curricular sport as a rationale for the existence of PE departments. This was a friendly disagreement I had with the headteacher at the school I worked at from 1990-1995 (when he retired). I prefer to focus on developing the curriculum and shift the focus of the extra-curricular programme from a sporting one, which tends to be exclusive, to running a programme that is more inclusive and promotes participation rather than competition. I am anticipating that I will recognise a lot of what they say as classic PE teacher language. I really hope I end up with a set of themes that I can use to take my thinking forward. I can also see now that, for many years, I 'followed the chatter' and was just a part of 'das man' and that perhaps in gradually rejecting this I was experiencing moments of 'authenticity'. Of course, I was not aware of this as I had not studied Heidegger then! There is also the idea that a main objective of interpretive phenomenology is to 'uncover or disclose a phenomenon by pulling away layers of forgetfulness or hiddenness' that are present in our everyday existence (Frechette et al., 2020). I can see this might apply to the interpretations I make about the participants but I am also hoping to have revelations about myself.

6.8.5 How might the findings impact on my understanding?

I was expecting that the participants would not have a discourse of learning as such. I felt that I needed to make sure that I approached this in a careful manner. I am worried that they might have a discourse of learning but that I don't recognise it as it is expressed in a different language. That is to say more in the language of the practitioner than a scholar. This will be a key element that needs to be on my 'radar' during the interview process and also in the analysis.

Writing this now (November, 2020), I can see that there are some key issues. First, that I must resist the urge to 'explain'. It is tempting to offer 'easy' explanations. Second, that I am not in the community of PE teachers and have not been for 20 years. Third, that I feel I am better placed to understand the interviewing process as

I was 'there' although reading the transcriptions it is clear I missed a few opportunities for supplementary questions.

(December, 2020) I am pleased that the findings I have emerged from the analysis. I am not sure what they mean yet and need time to reflect on that.

6.9 Interviews

A key justification for employing interviews in this study is that the interview allows for in-depth exploration of issues that are too complex to be adequately considered by quantitative means, alone (Banister et al., 1999). Interviews do not allow us direct access to 'facts' but instead offer indirect representations of how people experience those phenomena (Silverman, 2006). By going out into the field and interviewing people, the researcher is able to access directly, what happens in real life (Silverman, 2006). It is important that as researchers, we are prepared to "...throw ourselves into the unknown" (Smith et al., 2009: 65). This is essential with data that is generated within a phenomenological paradigm as the aim of the research is to develop the means to make interpretations about how the participants see their world, in this case, learning.

The final point to be made here is that an interview in such an approach, must seek to avoid only representing the voice of *das man*. In order to uncover the participants' consciousness of their lived experience, the interviewer must listen carefully in a way that goes beyond the immediate words and to seek the, "underlying beliefs, assumptions, and interpretations" (Hargrove, 2008: 99).

It is worth recalling that an interview in a research context, especially within qualitative research, may be seen, "…not as a tool but an encounter" (Schostak, 2005: 15). When carrying out interviews in a research context the researcher must 'live in the moment' and take things slowly so as to be able to pick up on significant moments in the interview, and ask the participant to expand on and clarify points that may be deemed significant. Preparation is vital and while it is good to have a clear schedule, it is important to 'know' the purpose of the questions so that the participants can be asked to expand on interesting moments and their perceptions recorded as thoroughly as possible. Often, the most interesting questions require time for

reflection (Smith et al., 2009) and this can be accommodated by returning to key points later in the interview when the participants may have had the time to make a more considered response. There is also a case to say that the interviewer must be aware of complacency, which in this sense, "…occurs when the interviewer falls back into everyday small talk" (Frechette, 2020: 7). The possibility for moments of 'authenticity' may be reduced if the interviewer does not seek to unveil the inauthentic discourse. Classic techniques in the interview process are techniques such as 'underarm bowls'- easy ice breaking questions; 'funnelling'- where the interviewer moves from general to more specific questions; and a host of supplementary questions that invite deeper reflection (Smith and Osborn, 2008). A key point in this process is that of trying to develop a rapport with the participant, and keep the discussion on the topic under consideration, a factor that is referred to as 'immediacy' (Dahlberg et al., 2008). In this sense, immediacy means that the interview is likely to yield the richest perspectives if the researcher and the participant can focus on the topic of the interview as well as reacting spontaneously to each other in the course of the encounter.

The focus of this study is the participating teachers' personal theories of learning. Whilst it might have been tempting to observe and record their teaching, in order to provide them with opportunities to reflect and discuss their practice, this would have had significant limitations for the validity of this study for the following reasons. First, the act of teaching is the execution of a series of socially constructed actions, some of which will be rituals determined by the local policies and practices of the school and the subject (for example behaviour management practices). In which case, the acts of teaching are knowingly undertaken but may not chime with the personal theories of learning held by the teachers. On the other hand, the practices observed may be rehearsed personal rituals which are executed in an un-mindful manner. Second, by foregrounding the obviously visible there would be an assumption that actions observed are a consequence of a particular set of personal theories - in this case that the act of teaching *is 'one and the same'* as the theories of learning that any given individual holds. Third, the recording would simply offer a snapshot of a moment in time and by inviting the participants to respond to the immediacy of their given situation, their interpretations are likely to be informed by the dominant performative requirements of teaching. It is argued, therefore, that providing the participants with

opportunities to respond to recordings of their practice would be insufficient because the act of teaching is influenced by many factors other than their theories about how children learn. For these reasons, the three-phase interview model was felt to be the one that would yield the richest data.

6.10 Interviewing/Fieldwork in this study

In this study the fieldwork was carried out with 4 participants who were PE teachers at Northview Academy. The field work was carried out in three Phases:

Phase 1 semi structured interviews   (All completed in January 2016)

Phase 2 unstructured interviews   (May 2015 – July 2017)

Phase 3 semi structured interviews   (July 2017 – June 2019)

Phase 1: was carried out in January, 2016 and consisted of semi-structured individual interviews (see Appendix 1 for interview schedule). The rationale for this initial semi structured interview was to carry out a broad sweep in order to begin to get an understanding of how each of the participants viewed learning. Supplementary questions that invited the participants to reflect more deeply were used when it was felt appropriate. Underpinning this was the idea that the participants had to be given the chance to be 'authentic'. To be authentic is to adopt the phenomenological attitude and to become a 'disclosed self' that disowns *das man*. Das man is Heidegger's notion that much of the time we enact roles that are cast for us by others and that is our *das man* self. This is very important as it is to be hoped that the participants will feel that the questions and the atmosphere in the interview enable them to be authentic should they wish to have a moment where they problematise their world.

Question	Origin of question
What do you feel children should be learning in P.E?	This was intended to be an 'ice breaker'. A way to see what they espouse as the point of the process.
When you look for learning in your lessons what do you feel that there is to notice?	Taking Drummond's (1994) idea that teachers have a radar and she argues that sometimes that radar prioritises aspects other than looking for learning.
What factors do you consider when planning lessons?	This question was designed to get a sense of what they felt were their priorities when it came to teaching.

What sort of strategies do you use to help children learn in PE?	The key to this question lay in the supplementary questions. When Dylan talks in terms of using 'trial and error', the value for this research comes when he is asked to describe his rationale for this.
What kind of things do you do when children fail to learn in PE?	This was designed with attribution theory in mind. The idea that where they locate the causes of this will be helpful in interpreting the participants' theories of learning.
What do you feel are the barriers that prevent children learning in PE lessons?	The idea here was to get to understand what they saw as the factors that might get in the way of learning. Likely to provide a good opportunity to make interpretations about theories of learning.
What do you consider to be good targets for children in PE?	The notion of targets has been a dominant feature of education in recent years. The idea here was to see how this was understood and also as a way to lead into finding how they understood learning intentions.
We are watching a really good PE lesson. What are we seeing?	This question was designed to see what the participants privileged in their consciousness and was situated in a PE lesson as it was hoped this would give context.

Table 6.2 Summary of lead questions for phase 1 of field work

Each interview was transcribed and then the process of analysis began though reading and re-reading and getting a sense of their perspectives (Holliday, 2002).

Phase 2: was carried out between January, 2016 and April, 2017. This comprised of an unstructured interview. The rationale for conducting unstructured interviews after the semi-structured interviews was to enable the participants to maximise the opportunity to bring to the fore their experiences of learning through describing a concrete experience from their practice, as people experience their lives in manifold ways (Sokolwski, 2000). The decision to engage in unstructured interviews for Phase Two was made because a key element of phenomenological research is to ask participants to talk about 'concrete' experiences (Spinelli, 2005; Giorgi and Giorgi, 2008). By asking the participants to situate their thinking in a practical context, it was felt that it would enable the participants to talk about learning by reporting on how they saw 'learning in context'.

Phase 3: The interviews in the third phase were carried out between November, 2017 and June, 2019 and took the form of semi-structured interviews (see Appendix 2 for interview schedules). At the completion of Phases 1 and 2, a more thorough analysis was carried out in order to develop overall themes. These were then used to inform a semi structured interview schedule for Phase Three, which was bespoke for each participant. The reason for this was because this is research carried out within a phenomenological paradigm where there is a concern with how things appear to the consciousness of the participants (Sokolowski, 2000; Langdridge, 2007). Therefore, it was felt essential to check the participants' perspectives as thoroughly as possible. So the rationale for the third phase was to go back to each participant and ask them to talk more about the key issues identified in Phases 1 and 2 with the intention of establishing their perspectives, as a far as possible, and to deepen the interpretations from the first two phases. Individual Phase 3 interview schedules can be found in Appendix 2.

Following the interviews in Phase Three, the same process of analysis was followed with the data from each participant were added to a spreadsheet. The data was then re-sorted by the overall theme (column 1). This meant that there was a set of data for each participant which was sorted by the overall theme.

6.11 Enacting the 'dance' between reduction and reflexivity

When creating data in a qualitative research context, the researcher is essentially a co-constructor with the participant, and their relationship will inevitably be a factor (Findlay, 2003). The importance of recognising this at each stage of the research is vital if the interpretations are to be securely founded. Husserl (1931)b, whose phenomenology can be located within a descriptive phenomenological paradigm, saw that in order to understand the phenomena, the researcher had to bracket themselves out of the research in order to get as close to the participant as possible. Husserl thought phenomenological practice required:

> "... a radical shift in viewpoint, a suspension or bracketing of the everyday natural attitude and all 'world-positing' intentional acts which assumed the existence of the world, until the practitioner is led back into the domain of pure transcendental subjectivity" (Moran, 2000: 2 on Husserl).

This is sometimes referred to as a *reduction,* or a self-meditative process where the philosopher brackets the natural world in order to try and see the phenomenon in its essence.

The other element central to the research process is that of reflexivity. Reflexivity literally means to bend back on oneself and is described as,

> "..... the process in which researchers are conscious of and reflect about the ways in which their questions, methods and own subject position might impact on the psychological knowledge produced in a research study" (Langdridge, 2007: 58).

A problem with this is that a person's preconceptions will exist in a variety of forms. Some will be highly conscious and take the form of espoused positions, whereas others will be ill-formed and tacit to a degree, and it is important for the researcher to seek to reveal personal presuppositions: "Reflexivity implies rendering explicit hidden agendas and half formed intentions throughout the research" (Gough, 2003: 25). It is also likely that the researcher will not be aware of their impact on the research process and so in effect there is a double layer of doubt operating. In other words, that as far as possible, the researcher is trying to see 'the thing' as the participant sees it. In order to do this the researcher has to be aware of their own presuppositions. This leads to a divergence of thinking. Husserl (2017) proposed that the key idea was for the observer to make every effort to 'bracket' themselves out so that the 'thing itself' could be considered almost in isolation, an essentialist perspective. However, this is problematic as the researcher only has their own vocabulary and life world understandings to draw upon to describe the phenomenon as experienced by someone else. It is tempting to see the interaction of the reduction and reflexivity as producing a kind of 'resultant' whereby reduction plus reflexivity leads to a resulting outcome. However, this would assume that each is set in some way. Interpretation of data within a phenomenological paradigm needs to be an iterative procedure (Smith et al., 2009) and so may be viewed as a continual process of interpretation and re-interpretation. In order to get as close as possible to understanding how the participant experiences their world, it is vital to, "…let things

present themselves in all their multiplicity" (Dahlberg et al., 2008) and not be tempted to make what is indefinite, definite by forcing things into the researcher's existing linguistic categories. In the same way it may be argued that learning is always contextualised, in other words there can be no learning without something being learned in a particular place and time. The process of interpreting the researcher's perspectives cannot happen in a vacuum, and so is stimulated by the consideration of the topic and being aware of the researcher's own reactions to the participants' responses.

The participants' views need to be established through careful questioning. There also has to be a stage of acknowledging the researcher's own position. The notion of a double hermeneutic is well established in IPA (Smith and Osborn, 2008). As a result, the participant is making sense of the researcher's questions and the researcher then interprets their responses, hence there is a double level of interpretation. In this research, the intention is to try and uncover the participants' personal theories. That is to say, the researcher is making sense of the participants consciousness as they articulate their understanding of the topic under consideration, and then has to infer from their verbal reports, what personal theories they are holding. In some cases, there is a third layer of interpretation as some theories may exist as implicit theories. Examples of this are presented at the start of chapter 7.

In the following section there is an example of how this happened in the data analysis. In the third interview Jude is reflecting on the assessment they have developed for key stage 3 (Years 7-11) in PE. He then says,

> "so we look at...the students fitness...as one area...we look at…their ability to coach...we look at their ability as a like leader...leadership qualities…..we look at their technical ability...in…you know…whatever activity it is they are doing…I think in the past that has been…the main...the main sort of area that that any PE teacher would have looked at…their technical ability" (Jude 3: 22-25).

My first thought about this is that he is saying that they 'look at' all these qualities. It feels to me as if he is talking in terms of revealing competence rather than developing it. This is something that is very much on my assessment 'radar'. In relation to enacting reflexive perspective, I need to be aware that I have a vested interest in

seeing teaching as a matter of developing competence and not just revealing it. It is something that I hold dear. Any comment such as 'looking out' will be on my horizon. The key thing, then, is to enact the dance as described by Findlay (2008) and try to move more closely to a state of reduction where I am seeking to be the outsider looking in. Jude's reply can be read as an example of him articulating a deeply inclusive perspective. Rather than focussing on technical ability he is advocating an involvement in a much more divergent set of competences. This leads back to a reflexive perspective. I am in favour of such a widening of the possibilities for learning although I do see developing physical competence as central to the subject. For me the issue is that I believe too often that there are norm-referenced perspectives at work. I would be advocating a more ipsative approach. In this way the analysis is informed by this 'dance' between the researcher trying to stand back and at the same time, being as aware of their own analytical lens as possible.

6.12 - Data analysis

The process of data analysis is one which is necessarily messy and non-linear. In this study four strategies were employed almost in parallel (diagram 6.1). First, to read and reread the transcripts. Second, to read and begin inserting notes in the text. Third to start to write short pieces of interpretation based on individual participants that are referred to here as vignettes. Finally, to begin to insert the fragment into a spreadsheet and then develop initial overall themes. It must be stressed that all four methods were employed in parallel and that this should not be seen be seen in any way as a linear process.

The data was not interrogated, seeking specific answers to predefined questions, but rather, the analysis was carried out so that what was important was allowed to emerge, or 'reveal itself'. It has been recognised that the process of turning an interview into a transcription, which is text, can mean that some richness and nuances can be lost (Dahlberg et al., 2008) and so at each phase, the process of initial analysis was carried out alongside the transcription so that the voices of the participants could be heard. From an IPA perspective, this approach is helpful because in order to understand how the participants see their world it is vital to look closely at their experiential claims (Larkin et al., 2006). It is also helpful to get an overall structure of

gestalt, which can form the basis for a theoretical frame within which, the emerging themes will be located (Smith et al., 2009).

The interpretative process

Reading and re-reading

The transcription

Note taking on text

Writing vignettes

Organising fragments of transcriptions into themes
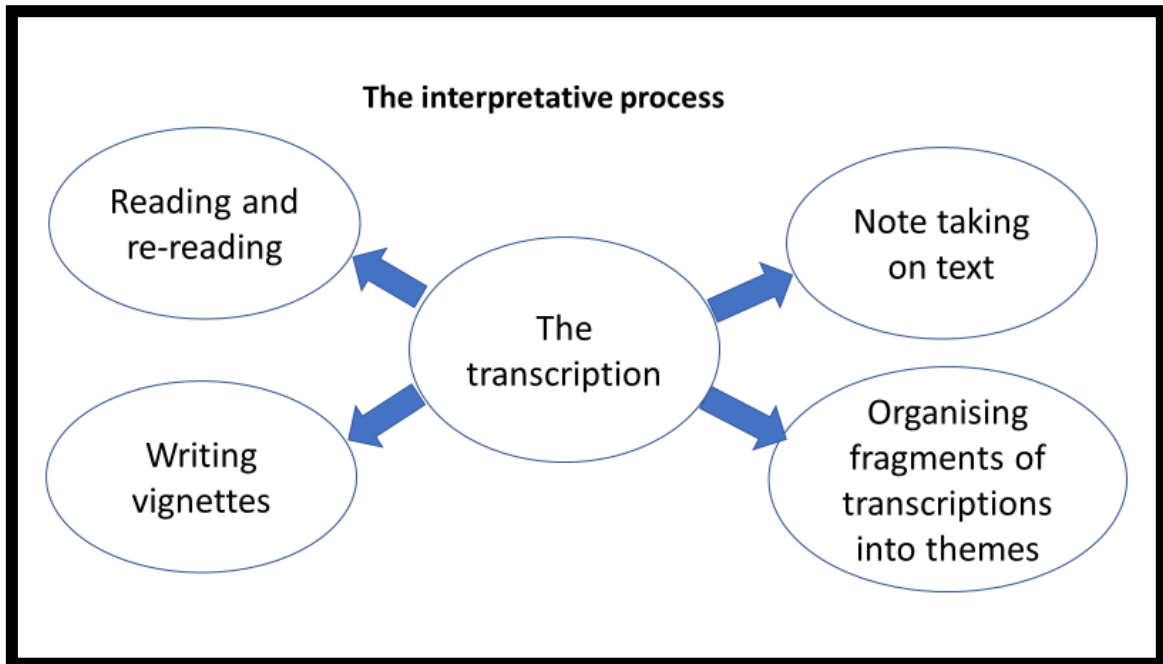
Diagram 6.1- Processes of data analysis

The purpose of writing the vignettes was to begin to identify and rehearse the interpretations. An example (Jude), is given in appendix 6.

1	2	3	4	5	6
Jude	2: 73-77	"I mean when you are doing badminton it is really important that you differentiate your resource like that...because it makes such a difference…the amount of times I have seen a student with a full-size racket and they just cannot serve they cannot hit it and you think what is going on here? And then you give them a smaller racket and immediately...no problem every time every time they are hitting it all the time..."			

Table 6.3 – Setting out the analysis 1- step 1

Table 6.3 shows how the initial stage of the analysis was set up. The extract of transcription is included (column 3) with the name of the participant (column 1) and the interview number and the lines in the transcript (column 2). In the example in table 6.3, the interview is the second round of field work, hence, '2' and the lines are 73-77 in the transcript.

The next step was to allocate the fragment of the transcription to a theme. In the example, the excerpt was seen as belonging to a theme about how teaching was conceptualised. It is important to state at this stage, that there is no assumption that there is any requirement for any fragment to be used only once. There are a number of cases where the same fragment was used for interpretations under different themes. This is to be expected as the interview was carried out within a phenomenological approach and it is seeking to show how the interviewee experiences 'the thing' under consideration (Dahlberg et al., 2008) which will not emerge neatly themed but is likely to reflect the complexity of how people live their lives 'in the manifold' (Sokolowski, 2000).

1	2	3	4	5	6 Overall theme
Jude	2: 73-77	"I mean when you are doing badminton it is really important that you differentiate your resource like that...because it makes such a difference…the amount of times I have seen a student with a full-size racket and they just cannot serve they cannot hit it and you think what is going on here? And then you give them a smaller racket and immediately...no problem every time every time they are hitting it all the time..."	.		Theories of teaching as a means to interpret personal theories of learning

Table 6.4 setting out the analysis - placing the extract under an overall theme

This process was repeated for all the participants. In the end the theme of considering theories of teaching as a way to interpret theories of learning was deemed to be significant enough to be a chapter. The analysis for all the participants was then amalgamated into a single version. A complete example for chapter 10 is given in Appendix 5. In Table 6.3 a reduced version is given.

1	2	3	4	5	6 Overall theme
Jude	2: 73-77	"I mean when you are doing badminton it is really important that you differentiate your resource like that...because it makes such a difference…the amount of times I have seen a student with a full-size racket and they just cannot serve they cannot hit it and you think what is going on here? And then you give them a smaller racket and immediately...no problem every time every time they are hitting it all the time..."	.		Theories of teaching as a means to interpret personal theories of learning
Ruby	2: 58-62	"...I can only really talk about my Year 7 group at the moment...any girls...I teach, it is usually girls as we are mainly single sex classes...until the exam course starts…..you set the rules...you set the boundaries and you set how you want your lessons in September			Theories of teaching as a means to interpret personal theories of learning
Darcie	2: 317-319	"…if you have not had them from when they are younger...because what I try and to do now with the Year 7s that I teach is I try and instil that in them quite early..."			Theories of teaching as a means to interpret personal theories of learning

Table 6.5 – Setting out the analysis - Adding in the data from other participants

The next step was to consider all the fragments in that 'overall theme' (column 6) and then begin to organise them into another level of themes (column 5). In the example given the next theme (column 5) is that of, 'How the relationship between teaching and learning was conceptualised' (see Table 6.4).

1	2	3	4	5	6
Jude	2: 73-77	"I mean when you are doing badminton it is really important that you differentiate your resource like that...because it makes such a difference…the amount of times I have seen a student with a full-size racket and they just cannot serve they cannot hit it and you think what is going on here? And then you give them a smaller racket and immediately...no problem	.	How the relationship between teaching and learning was conceptualised	Theories of teaching as a means to interpret personal theories of learning

		every time every time they are hitting it all the time..."			
Ruby	2: 58-62	"...I can only really talk about my Year 7 group at the moment...any girls...I teach, it is usually girls as we are mainly single sex classes...until the exam course starts…..you set the rules...you set the boundaries and you set how you want your lessons in September		How the relationship between teaching and learning was conceptualised	Theories of teaching as a means to interpret personal theories of learning
Darcie	2: 317-319	"…if you have not had them from when they are younger...because what I try and to do now with the Year 7s that I teach is I try and instil that in them quite early..."		How the relationship between teaching and learning was conceptualised	Theories of teaching as a means to interpret personal theories of learning

Table 6.6 – Setting out the analysis - adding a second level theme

This process was then repeated so that the interpretations could now be at a third level (Table 6.6).

Jude	2: 73-77	"I mean when you are doing badminton it is really important that you differentiate your resource like that...because it makes such a difference…the amount of times I have seen a student with a full-size racket and they just cannot serve they cannot hit it and you think what is going on here? And then you give them a smaller racket and immediately...no problem every time every time they are hitting it all the time..."	Teaching is conceptualised as a form of transmission	How the relationship between teaching and learning was conceptualised	Theories of teaching as a means to interpret personal theories of learning
Ruby	2: 58-62	"...I can only really talk about my Year 7 group at the moment...any girls...I teach, it is usually girls as we are mainly single sex classes...until the exam course starts…..you set the rules...you set the boundaries and you set how you want your lessons in September	Teaching is conceptualised as a form of transmission	How the relationship between teaching and learning was conceptualised	Theories of teaching as a means to interpret personal theories of learning

| Darcie | 2: 317-319 | "…if you have not had them from when they are younger...because what I try and to do now with the Year 7s that I teach is I try and instil that in them quite early..." | Teaching is conceptualised as a form of transmission | How the relationship between teaching and learning was conceptualised | Theories of teaching as a means to interpret personal theories of learning |

Table 6.6 – Setting out the analysis 6 - adding a third level theme

6.13 Conclusions

In this chapter the details of how IPA was enacted in this research have been presented. The key idea was to show how the theoretical rationale presented in chapter 5 could be 'operationalised' in the data generation and analysis.

This chapter marks the end of section 2 of this thesis. The next chapter, chapter 7, marks the start of the final section of the thesis which is the findings.

Section 3 The Findings

Chapter 7 – Personal Theories as espoused, implicit and nuanced.

Chapter 8 – Interpreting the participants theories of learning through consideration of how the aims of the subject appeared in their consciousness.

Chapter 9 – Interpreting the participants' personal theories of learning from how the children were 'constructed'.

Chapter 10 – Theories of Teaching as a means to interpret personal theories of learning

Introduction to section 3

This research is making interpretations of the participating teachers' personal theories of learning using an approach based in interpretative phenomenology. In this section there are four chapters that will present the findings of the analysis. The principle focus of chapter 7 is to introduce two of the key characteristics of personal theories that have been identified in this research. Namely, that the participants' personal theories of learning should be seen as existing in espoused and implicit states and also that they were subject to a considerable degree of nuance. These two themes will be considered in detail in this chapter and will also inform the interpretations in chapters 8, 9 and 10. In the second analysis chapter (chapter 8), the ways that the participants spoke about the aims of the subject will be considered. It is argued that interpreting how the purposes of the project of learning in PE was experienced, in the participating teachers' consciousness, was an appropriate way to make interpretations about their theories of learning. A criticism of some learning theories is that they don't always take account of what is to be learned. There is clearly an issue in adopting the position that learning is deeply embodied, that any theory of learning must include a consideration of, "…what is being learnt - the contents and outcomes of learning?" (Engestrom, 2009: 53). In the third chapter (chapter 9), the ways that the participants constructed their

students will be appraised and it will be argued that any theory of learning should include the 'people' who are doing the learning (Engestrom, 2009). The claim is that by interpreting how the participating teachers constructed their students is a highly relevant way to gain insights into the participating teachers personal theories of learning. In the fourth chapter (Chapter 10) it will be argued that although the questions in the interviews were asking about learning in the participants' replies, there was often a 'drift' to focussing on teaching. In chapter 10 it will be argued, that attending to how the teachers spoke about their teaching was a valuable way to gain insight into their theories of learning and was a logical line of analysis to pursue. Heidegger said that, 'Being' in terms of *Dasein's* horizon of understanding was a framework of interpretation that acted like a light that *Dasein* projects in order to allow things to be seen as they appear to consciousness (Heidegger 1927 in Caputo 2018). In this case, the participants are in the context as teachers and so it is to be assumed that one way to understand their theories of learning is to interpret them from how they understood the process of teaching.

In considering the findings there are three other points for the reader to bear in mind. First, that in places multiple interpretations are offered. Ricoeur (1974) argued that hermeneutics works best with a process that seeks to mediate and negotiate rather than remove any conflict of interpretations. This removes any requirement for certainty and opens the possibility for multiple interpretations. This in no way should be seen to detract from any 'truth' but rather that truth in this instance is conceptualised as a matter of coherence (Bridges, 1999). That is to say that the truth of any proposition, the findings of this research, consists in its coherence to some set of propositions. In this case the phenomenological presuppositions about the world. Second, that in some cases the same fragments of transcription are used for different interpretations. A point that was made in chapter 6. Third, that where it is felt appropriate the possibility for moments of inauthenticity will be made.

Chapter 7 – Personal Theories of Learning are Espoused, Implicit and Nuanced.

7.1 - Introduction

In chapter 4 (section 4.4) it was argued that much professional knowledge lies beyond ready articulation and is often 'revealed in context'. It was also claimed that a helpful way to conceptualise such theories is to see them as being espoused or theories in action (Schon and Argyris 1974). In this research it will be argued that interpretations about personal theories of learning should be seen in two ways. First, theories that are espoused and can be readily articulated. The espoused theories tend to be in response to direct questions and were often situated in how the participants spoke about aspects of their professional practice. However, there were also a number of instances where it was possible to interpret theories that were held implicitly. Implicit theories are recognised in terms of embodied cognition, "...thought is mostly unconscious" (Lakoff and Johnson, 1999: 3). Indeed, this is a perspective that is also held by Dennett (1991) who claimed that mental processes are not readily accessible. An example of a more explicit response being:

> **CC-** So...in your ideal world what do you sort of think...children should be learning in PE?
>
> **Dylan-** Ok what should they be learning in PE? Mmm.....In an ideal world they need to be learning SMSC......life skills......I think they are the most important thing that children can learn......being able to deal with competitive situations...working as a team...winning and losing graciously...communication skills. I think...are very high up there. (Dylan, 1: 3-7).

In the example above, to the direct question about what children should be learning in PE Dylan advocates a range of aspects such as life skills, dealing with competition and communication. Any statement of consciousness is likely to have an implicit element. In this case Dylan's comments about 'being high up there' suggest that he sees this in a hierarchical manner. That is to say that he sees the 'winning graciously' and communication skills as being more important. This is to be expected, as in an embodied perspective there is no separation between emotion and cognition (Damasio, 2010) and we are not dispassionate calculating machines (Westen, 2007) but hold all manner of subjective positions about the world.

An example of a more indirect way in which perspectives on the aims of the subject can be interpreted is where Ruby is asked a supplementary question about how she understands the importance of children, 'thinking for themselves' which is something she had mentioned earlier in that interview:

> "…so I find it so important that students have think for themselves…ok we are learning badminton today...but they have to think for themselves…well what is badminton…what...you know…how could you create your own game…with this racket and this shuttle…and I just think children need to think more than be dictated to and kids are really good...with...you know…with answers a lot of the time…" (Ruby 1: 31-34).

This can be interpreted as a case of an explicit theory, or an espoused theory, being articulated. Ruby is stating that, for her, a prime purpose of the subject is to foster or provide children with the opportunity to have some kind of autonomy or self-direction. This is also the case when she says that, "...children need to think more than be dictated to". Ostensibly, the message is, that being told something precludes thought or even that children will only think if they are invited to do so which indicates that she sees teaching and learning in a something of a causal relationship. However, it should be noted that this was not something that featured when she was asked directly about the aims of the subject. Although, of course, we all know 'more than we can say' (Claxton, 1984) and this should not necessarily be seen as particularly significant, just a matter of priorities in the moment. Heidegger (1962), felt that language was more than a tool for communication and as such was constitutive, that is to say, the speaker, in the moment, is constructing a particular version of their consciousness into being through the language they choose to employ (Guigon, 1983). This should be viewed as another way of saying, that language is appropriated by consciousness (Baldwin, 2004). Also, in a more indirect way, Ruby talks about the children 'learning badminton'. This can be viewed implicitly, as her seeing the project of learning in PE as a matter of developing sporting competence and at that moment she is drawing on a sporting discourse rather than a learning one.

In addition, Heidegger's notion of authenticity that was introduced in section 5.5, will be used as a more tentative line of analysis in this chapter. The relevance for this research is that one of the characteristics of the inauthentic state is that it could indicate that teachers take aspects of contextual behaviour as given. This would

mean that the inauthentic self, could be shutting down ways of seeing the world that might be enriching. In this research it is difficult to know with any certainty, when, and if participants were being authentic or inauthentic. However, there were instances when this idea was deemed to have the possibility to offer another line of interpretation. These moments of 'authenticity' will be outlined in the next 4 chapters.

In this research, what was of interest was, the ways in which the participating teachers understand learning. In section 5.5 it was argued that as Phenomenology is the study of human consciousness of experience it follows that a person's consciousness is always directed at something which is to say that the person is conscious of 'something' in the world. In chapter 5 it was stressed that a central feature of phenomenology is intentionality, which is to do with how a particular person experiences a particular feature in the world. It is usual to speak of intentionality as being 'aspectual' or 'perspectival' as one is always aware of a particular object in a particular way.

> "One is never conscious of an object *simpliciter,* one is always conscious
> of an object in a particular way, be it from a certain perspective, or under
> a particular description" (Zahavi, 2019: 17).

In a phenomenological paradigm it is assumed that the person lives in the world as 'a single unit of experiencing' (Heidegger, 1962). Therefore, in order to make the interpretations as complete as possible it is important to consider, not just the ways that the participants speak about learning, but also consider the assumptions that they make about learning when talking about other aspects of their practice. In phenomenology the 'lifeworld' is the world as concretely lived but this is often the 'taken

The findings in this chapter are that the participants theories of learning can be interpreted to be both espoused and implicit (section 7.2) and also to be considerably nuanced (7.3).

7.2 - Personal theories as espoused and implicit
7.2.1 Introduction

Phenomenology has been termed as the philosophy of human consciousness. Indeed, Lind (1986) argues that it can be viewed as the 'science' of consciousness. In philosophical terms, 'consciousness' is not to be understood in the same way as in everyday language where it might be used as a synonym for awareness. Searle (2001)

proposes that a helpful way to understand this is to make a distinction between the centre and the periphery of consciousness. He claims that at any given moment of non-pathological consciousness I have what might be called a 'field of consciousness'. Within that field I normally pay attention to some things and not to others. So, for example, right now I am paying attention to the problem of describing consciousness but very little attention to the feeling of the wooden floor under my bare feet or the breeze that is blowing gently. It is said that I am unconscious of these but this is a category error. The proof that they are part of my conscious field is that I can, at any moment, direct my attention to them should I choose to do so. In order for me to shift my attention to them, there must be something which I was not paying attention to, that I am now. This means that the theories people hold about the world may exist as conscious ones that can be readily espoused or they can be more implicit but the point is that these implicit theories are capable of becoming explicit. What is of note is the extent to which the research process might enable this in the participants. Of course, it has to be remembered that this switch of attention might happen, but the participants may not feel able to reveal this in the context of a research interview. It should also be remembered that hermeneutics has different meanings. In this research the idea is that it is a process of explaining and clarifying which necessarily involves the researcher.

It is assumed that the participants' personal theories are subject to interpretation and that they have explicit and implicit dimensions. The differences manifest themselves in a heterogenous manner, across the four participants. The methodology employed in this type of research, is relying on verbal reports because the knowledge that is required is about how the participants experience the world and that cannot be observed or studied directly. Therefore, language acts as an intermediatory device (Pring, 2000) that enables the researcher to make interpretations about the participants' consciousness. However, it should not be assumed that such verbal reports are revealing a form of fixed essence.

> "Immediate consciousness does involve a type of certainty but this certainty does not constitute true self-knowledge." (Joy, 2008: 101).

The argument here, is that what the participant in the interview says, can be seen as their 'certain' perspective at that moment or what they are prepared to reveal in a research context at that moment. It does not mean that they are necessarily

presenting an essence, it is possible that they don't know what that might be, as most thought is unconscious (Lakoff and Johnson, 1999). It must also be remembered that in a phenomenological approach, the assumption is that language does not 'constitute' awareness, it 'appropriates' it (Baldwin, 2004). That is to say, the participants' consciousness of learning is not formed by the discourse they employ, but that their discourse of learning is fundamentally shaped by how learning appears in their consciousness. In this way, language should be viewed as a deeply intentional act because it is always directed at expressing something in consciousness (Searle, 2002). Merleau-Ponty (1963) argues that the words we use are never 'empty'. By which he means that they are expressing some form of consciousness, even though that consciousness may be at the periphery of our awareness. It follows, that through language, we can express conceptions of which we may not necessarily be aware.

In this section each participant's will be taken in turn and examples of interpretations of their theories that were interpreted as being espoused and implicit are presented.

7.2.2 Examples of espoused and implicit theories- Darcie:
In the first interview Darcie is asked what she looks for when ascertaining learning. She says,

> "umm…communication between...between groups…ahmmm I look for those that are taking the lead I look for those who are shying away because then…I don't want them to fall behind..." (Darcie 1: 97-98).

Darcie is saying that when she is attempting to identify learning, she looks for communication and at the same time, for those who are shying away. Both these claims can be read as espoused theories. She then articulates her concern for the children who may potentially' fall behind'. From this it can be interpreted that implicitly, she holds a norm referenced theory, which would assume that, making comparisons between children, is a principle of her practice. This is related to the metaphor of education, rather than being about individual mastery of content, becomes a form of 'arms race'. The idea of 'falling behind' is also in common use in education discourse and this might be read as an instance of inauthenticity. Darcie is drawing on the discourse of *Das man.*

In the third interview Darcie is talking about the work she has done to develop a 'growth mindset' with the children. This relates to developing the children's sense of

agency and self-worth in education. As part of this she talks a good deal about changing the language that the children use:

> "...what…we tried to do with staff was to look at the language they were using as well…a lot of stuff they used is quite fixed…like…in terms of...we give them a side by side table of language they should be using..." (Darcie 3: 220-222).

In terms of the espoused theory, it is clear that Darcie is advocating a more 'growth mindset' and is arguing that the language that the children use is important. However, this is about developing agency and so it can be argued that by 'giving' them the language they 'should' be using, implicitly, she is seeking to develop agency by offering a mode of learning that assumes some form of student compliance. This is a moment that can also be read as 'inauthenticity'.

Also, in the third round of field work, Darcie was reflecting on the possibilities of heuristic processes in learning. In her response she says,

> "...the process when we do a new sport or we try and teach a new skill…and the student does not actually pick up the skill they have to go through the process of…of trying to learn it..." (Darcie 3: lines 127-129).

The explicit meaning can be interpreted as Darcie saying that different children can learn at different speeds. That is self-evident. However, implicitly, she also seems to be saying that 'picking up' a new skill quickly does not involve learning. Therefore, it is possible to make the interpretation that she sees 'learning' as 'required' when you can't master something easily and that means you have to resort to spending time 'learning' it. This also suggests the possibility that at some level, Darcie sees that one can have competence but that this was not learned. It should also be noted that in many cases the participants appeared to talk about mastering 'new' content. 'New' can be interpreted in two ways. First, it might be 'new' in terms of content not previously experienced. Second, it might be 'new' in the sense of gaining deeper insights into content already experienced.

What has been argued here is that Darcie's theories of learning are particularly related to developing student agency, growth mindset, and communication. At the same time her implicit theories can be interpreted as seeing the children in a norm referenced manner, that she saw learning as a matter of 'picking up' knowledge and that at some level, acquisition of competence that happened quickly did not involve learning.

7.2.3 Examples of espoused and implicit theories- Dylan:

In the first round of interviews Dylan is asked what he would expect to see in a very good lesson. As part of his reply he says,

> "From the children...in a really good lesson you would see kids understanding why they are doing what they are doing and knowing where what they are doing is going take them..." (Dylan 1: 208-209).

Dylan's espoused theory is that learning is about understanding and he is assuming that this can be visible. There is also an assumption that the children have a high level of meta-cognition as he says that they are aware of where this increased competence will lead them. In this, he is assuming that learning has a clear trajectory and that this is visible to them. Constructing learning as something that can be observed suggests that implicitly, he places learning in a realist paradigm. It is also the case that, implicitly, he appears to see the process of learning as a rational process. Rationality in this sense, being the idea that for any action, belief or desire to be rational, it can be subject to conscious choice (Audi, 1995).

In describing his 'exemplary lesson', which was the second stage of the field work, Dylan chose to focus on a Year 8 class learning to hurdle, and has said that he employed a heuristic approach. He was asked why he thinks that 'trial and error' might be a powerful way to learn:

> "Ummm....If you get to a point where the class are happy to do that and you can trust them …I think they really do…start to think about it in more depth…if they are allowed to have time on their own…to develop…" (Dylan 2: 29-31).

Explicitly, Dylan is saying that the class need to be 'happy' to learn in a heuristic manner. One of the features of the field work was that the participants often spoke about groups of children as they were homogenous (see chapter 9) and this can be interpreted as an implicit theory as it did not appear that this was something that they were necessarily aware of. Indeed, if they were aware of this it is unlikely that they would disclose such a perspective. It is significant that Dylan talks about the children 'thinking more deeply' even though this lesson was about learning to hurdle and could therefore be seen to be more a concern with procedural knowledge. Procedural knowledge is more about 'doing' the activity and the competence might well exist as an embodied set of sub routines that lie beyond discursive consciousness. If that has credence then it can be interpreted that, at an implicit level, Dylan sees the process of learning in PE, and in this specific case, learning to hurdle, as one that is subject to discursive consciousness. The idea of 'trust' is also significant as this is his

'construction' of the students (see chapter 9). In this extract Dylan is claiming that the mode of teaching he uses would depend on how much he trusts the class. This can be read as an implicit theory at work as he is saying that this mode would only be appropriate if the children were motivated by the approach and would stay 'on task'. The notion of being on 'their own' came up several times in the field work. It might be that the participants see that learning requires the learner to have time where they are alone as the process of practice is viewed as an essentially solitary one. This can be read as Dylan seeing that the children require time to practice but how he sees his role as the teacher at that time is not clear. Although, if he feels that the children need time to practice, then it can be assumed that he is observing rather than instructing. The final layer of interpretation is focused on Dylan saying that the students are 'allowed to have time on their own'. This feels like an implicit theory at work as 'time on their own' is constructed as his 'gift' which implies that he holds the power.

In considering his exemplary lesson, Dylan is asked about the progress he saw:

> "I think that within the 40 minutes…in a nutshell...went from not knowing anything about it to understanding what it was all about" (Dylan 2: 143-144)

Dylan is espousing two points here. First, the children arrived at the lesson, *tabula rasa,* in terms of their knowledge about hurdling and second, he felt that during the lesson, they got to a point where they were 'understanding what it was all about'. This can be interpreted as him, seeing that learning is 'finished' in some way and this can be viewed as an implicit theory.

In the third Interview Dylan is asked to rehearse what he sees as the aims of PE. He talks about the importance of social learning and in particular, he highlights the importance of accepting defeat and being 'a nice human being'. He is asked if he feels that learning this in PE would transfer to other aspects of the children's lives. Dylan responds,

> "…I think so…I'd like to think it would...if it becomes second nature to them in PE then it is probably developed in them…as a trait of theirs…" (Dylan 3: 17-18).

Dylan is espousing the idea that he is keen to enable social learning and then says he is hoping this would become a 'trait'. This can be interpreted as Dylan seeing that social learning can be viewed as a matter of convergence and that his notion of constructing

this as a 'trait', assumes a degree of permanence. Also, in the third interview, Dylan is asked what gives him joy in teaching:

> "It is not about how good you are it is about getting down here and enjoying yourself...and seeing their smiley faces on kids who are not sporty but...seeing them enjoy PE...it gives me a lot of joy..." (Dylan 3: 79-81).

In this extract Dylan is articulating a very inclusive perspective and this is evident when he states, 'it is not about how good you are'. This is clearly an espoused theory and promoting inclusion, is a significant element of his practice. His point about enjoyment is also an espoused theory and can be understood as a presupposition that, how the children receive his teaching, is high in his consciousness. When he says, 'kids who are not sporty', this can be interpreted as an implicit theory that is operating alongside the espoused theories. This suggests, that at some level, he sees PE as being synonymous with sport. This can also be read as him constructing children 'who are not sporty', as fixed; a theme that is developed in chapter 9.

In this section it has been argued that Dylan's theories of learning exist as espoused theories. In terms of espoused theories, he feels that heurism is powerful; that the children need to 'know' what they are doing; that learning involves thinking and that the learner is aware of the process. At the same time, it can be said that implicitly he sees learning as a rational process; that learning is something the children do 'on their own'; that learning can be finished and that him giving the children time to practice is couched in terms of a privilege.

7.2.4 Examples of espoused and implicit theories- Jude:
In the first interview Jude is talking about the aims of the subject. In particular, he advocates that decision-making should be a part of what children learn:

> "I think they should be learning...decision making...so...not only are we looking at their...sort of the traditional technical ability side of things...but we are looking at how well can they make decisions...if they...if they are in a game situation...can they make the right pass or can they make the right movement or can they choose the right technique...at a given moment" (Jude 1: 16-19).

Jude's espoused position is that decision making is a valuable element of learning and that this might be about selecting the 'right option' or employ the 'right technique'. Implicitly, he is saying that there is a 'right' option rather than a number of options, which suggests that at some level, he sees what can be learned in a convergent manner. It is also significant that he uses the phrase, 'we are looking at ...' which

might mean that, implicitly, he sees the project as one of identifying competence. On this theme he is asked about whether he sees the capacity to make decisions as a situated one:

> "/global, 100% because if you can make...if you can make a good decision in badminton, then you're probably far more likely to make a good decision in football and rugby and gymnastics and...whatever you're going to be teaching so I think...you know...you can teach good decision making that's going to affect the whole of...of PE and on top of that it might help to make good decisions outside of PE in the big wide world..." (Jude 1: 63-67).

Jude's espoused theory here is that the capacity to make good decisions is one that transfers easily to all aspects of a person's life. He starts off saying that this transfers across physical activities, then he extends that to 'the whole of PE' and finally, to 'outside of PE 'in the big wide world'. There are two implicit interpretations. First, in respect of decision-making, Jude does not see this as situated as contextual and so implicitly, he is saying that the levels of competence a person might feel in a situation makes no difference. Second, he says, '…you're probably far more likely to make a good decision in football and rugby and gymnastics and....whatever you're going to be teaching'. So, here he has switched from what the student might be learning to a more teacherly focus. Implicitly, it might be that he is seeing teaching as the single most important factor in children's learning. It appears that he is claiming that teaching can 'cause' transfer, a notion that is developed in chapter 10.

In the second interview, Jude described his Year 7 badminton lesson in which he selected particular activities that he considered to be more fun for the children:

> "…we had a little competition to see which pairing could get the most shots in the rally...which again in a Year 7 top group...competition is so important to them...and it really brings the best out of them...they love to have that element of, "oh how many did you get, how many did you get I want to get this I want to get that" and it really motivates them and pushes them forward..." (Jude 2: 88-91).

In this, Jude is espousing that the power of competition acts as motivation for the children. He says that competition is 'important' to the children and is actively promoting a norm referenced approach. What can be interpreted implicitly, is that he appears to assume that all the children like this as he says, 'it really brings the best out of them'. Another interpretation is that implicitly, he assumes that competing like this will bring about the learning he seeks. It might be that the focus on competition is a distraction from a focus on improved skill production. The final point to be made here is his use of the word 'pushes' when he talks about learning. There seems to be an implicit assumption that motivation is about 'pushing' or the learner being pushed. This

assumes a reluctance to engage and so it might be, at an implicit level, Jude assumes that the children will not be motivated. Later in the same interview he is describing the sequence of the activities. He gets to the point where the children were practicing the overhead clear[i]:

> "…I am trying to think what else...what else was in the lesson…….and then…………………I think the lesson moved on……" (Jude 2: 105-106).

At this point he talks in terms of the 'lesson moving on' which seems to suggest that implicitly, he sees the project of teaching PE to be about 'the lesson'. In saying that the 'lesson moved on' the children are absent and the lesson takes a value on its own which might be that teaching is seen as a performance in its own right or merely a process towards the learning objectives.

In the third interview Jude is asked to reflect more on how he sees the place of assessment in helping children to learn:

> "I think that assessment is absolutely vital because...you need to have...well first of all you need to have a starting point...of where is that student...and then you have to be able to take that starting point and use it as a means of assessing what progress they have made with you…in that particular lesson...or with you across maybe a 4 week block of lessons within a particular activity…or…..or even more what have they…..what have they……how much they have progressed over the 3 4 years they are with you…so assessment is vital…" (Jude 3: 6-11).

Jude starts by talking in terms of assessment leading learning although this is ambiguous. It could be read in a very technical way or in a more open manner as the need for the teacher to have an understanding of what the children know, understand and can do. He then says that this is important so that 'progress can be assessed'. It appears that implicitly, being able to make judgement about progress is privileged over helping children to learn, although it might be that he sees those two things as congruent. He also makes a point of twice saying, 'with you'. This can be interpreted as Jude, 'owns' or is responsible for the children's progress in some way. He then talks about progress in terms of 'how much' which can be understood as a process by which 'learning' becomes quantifiable and so belongs to a more technical perspective. Marton and Booth (1997) suggest that we can see learning as a matter of reproduction or as a matter of seeking meaning. In this case, explicitly, Jude is saying assessment is important as it indicates, 'how much progress'. This can be read as him holding implicit theories where the 'quantification' of learning is normalised and where there is an implicit understanding that the relationship between teaching and learning is a causal one. This will be considered in more depth in chapter 10.

In this section it has been claimed that Jude espouses that PE is about making the right decisions and so implicitly, this can be understood as him seeing this in a convergent manner. He espouses the idea that competition is energising for all children and that for the most part, the teacher is at the centre of classroom events. At the same time, implicitly, he tends to see the capacity to make decisions as one that is not situated in context. He takes a technical view about learning as he sees it in terms of 'how much', rather than as some kind of meaning-making for the children. Implicitly he seems to understand teaching as an action that 'causes' learning in children. The final point here is that he spoke of the lesson as if that had meaning and or value as a performance in its own right and not necessarily in terms of what was happening with the children.

7.2.5 Examples of espoused and implicit theories- Ruby:

In the first interview Ruby is asked what she feels makes for a good lesson objective:

> "...well a good objective…is…teaching the children the objective in hand to do with the sport you are teaching…so they understand…you know…straight away what they have got to do …and then…learn something new…and then progress with that objective throughout the lesson" (Ruby 1: 43-45).

Ruby is espousing the idea that the objective should enable the children to know what they have to do. She follows this by saying that they will 'progress with that objective throughout the lesson'. It seems that implicitly, she sees the objective being privileged over the process of the child seeking to gain increasing mastery of particular subject content. Or that she sees the project of the children learning as being perfectly congruent with the learning objective. In a similar vein, Ruby is asked about the factors she takes into consideration when planning a lesson:

> "…there is loads with planning lessons…because you are so used to lesson objectives…You have got differentiation…you have got question and answer with students…..you have got open questions…you have got thinking skills…of task in hand..." (Ruby 1: 64-66).

Implicitly, Ruby responds to this question in a principally technical manner. She is claiming the importance to her, of lesson objectives, and then teaching strategy, as she mentions differentiation and questions.

In the second interview Ruby is reporting on her long jump lesson and making the case that the key words she uses with the children are helpful. She says that 'power' is a helpful concept when thinking about long jump:

> "…well it is important to let them know that the reason they are doing this is so this will happen ……and…that is how you think of these words to help their performance…because if they are doing long jump…and the teacher…is saying ok just take off…they would just jump wouldn't they? If you bring in the word power they will be thinking of power as like……power" (Ruby 2: 185-188).

Ruby says that it is important to 'let the children know'. Here she is arguing for the importance of clear instruction and assuming that this leads to understanding on the part of the learner. This can be interpreted, as implicitly, she feels that learning about power in long jump, can be transmitted as a form of propositional knowledge. In her discourse she is espousing the idea that long jump is not something that is an embodied form of content mastery but relies on theoretical knowledge. An alternative explanation would be that, in solving the problem of long jumping, the children, if motivated, may be using power although this might lie beyond discursive consciousness. In this, physicists would say that 'power' is energy transferred over a unit of time but it can also be a form of procedural knowledge as the children recognise and eliminate responses that are less effective. So implicitly, it can be interpreted that Ruby does not recognise the possibility of tacit knowledge. This can be read as an instance in inauthenticity where Ruby appears to be taking the world for granted and so is existing inauthentically.

In the third stage of field work, Ruby is asked about how she sees the principles of effective teaching:

> "…good knowledge of the subject…...progress from the lesson objective you are teaching...yeah progression from what you are teaching is obviously huge isn't it…because….how are they learning...if they are not going to be progressing…so your lesson objective…knowledge…give the children the skill you want them to learn…by the end of the lesson they have learnt that skill…ready to move on the next lesson…" (Ruby 3: 70-74).

Ruby starts by saying, 'good knowledge of the subject' which suggests she is talking about something that she sees as a desirable characteristic of an effective teacher. Ruby then references 'teaching the lesson objectives' which can be read as implicitly, she sees that the objectives are privileged over what the children learn. An alternative would be for her to talk in terms of mastery of the content. This can also be interpreted as an inversion of first and second order objectives. Traditionally, what the children are seeking to learn would be the first order intention and then the objectives are there to help the teacher with this as a second order intention. What Ruby appears to be doing is reversing this so the second order activity, the learning objectives, become the first order. Having lesson objectives can be seen as a way to focus the lesson.

This is not research that seeks to explain personal theories of learning but this might be interpreted as a form of 'neo-liberal seepage' where the performative elements mean that learning is presented as being visible and measurable. It is also significant that Ruby says that by the end of the lesson, 'they have learnt' that skill. So implicitly, she is saying that learning can be finished, which is related to the idea of lesson objectives being met. Tight, coupled objectives have been argued to be a problem as in a more natural 'life world' learning is best seen as an open-ended activity (Swann, 1999 a).

For Ruby her espoused theory is that lesson objectives are crucial and she assumes that the children learn from the teacher's explanation. She saw the teacher very much at the centre of learning and spoke as if learning was visible and measurable. In terms of implicit theories, for the most part, Ruby is privileging the technical aspects of the lesson such as learning objectives and related to this she did not appear to acknowledge the possibility of tacit knowledge. There were occasions where it seemed that she saw learning as something that can be finished or completed.

7.2.6 Examples of espoused and implicit theories: summary

In this section it has been argued that at times, the participants' theories of learning can be interpreted as existing as theories that could be readily espoused and also as implicit theories. The point of interest here, being that these differences were expressed in different ways which, given that a phenomenological approach would assume that the world is experienced in the manifold (Sokolowski, 2000), is to be expected. Looking across the participants' perspectives it does not appear that there was a significant pattern other than their theories were espoused and implicit. Perhaps the most significant aspect was that of an implicitly technical perspective.

If personal theories about learning can exist as espoused theories or implicit theories it follows that we hold other theories like this. This matters because, when carrying out teacher assessments, it is important that the assessors attend to the strategies that they see the teachers employ, the ways that these are employed and then the way that they talk about what they have done. Not only that, but interpretations should be made about the implicit theories that emerge.

7.3 - Personal theories of learning are nuanced

7.3.1 Introduction

It is recognised that in many cases people like to see that they are operating in the world as rational agents (Chivers, 2019). Over time, there has been a philosophical argument between rationalism and empiricism. The rational position would be that the mental aspect of the person is the most important part of the body and it is the mind where consciousness exists. However, a more embodied perspective would be that reason is key and that this is inextricably tied to our bodies which led to Heidegger (1962) arguing that we are a 'single unit' of experiencing. It is also the case that our bodies, brains and the interactions we have with the environment provide a mostly unconscious basis for our everyday metaphysics or our sense of what is real (Lakoff and Johnson, 1999). In this research, where the approach is a phenomenological one, the person and how they see the world must be considered to be assuming an empirical perspective. The concept of cognitive dissonance is a well-established feature of psychology. The idea being that a person can hold theories that are in contradiction and then if this is visible to the person, they have to find ways to resolve that dissonance. However, these dissonances only need to be resolved or accommodated if they are noticed by the person and/or they are motivated to resolve them. In the field work it was possible to interpret that the participants held theories of learning that were nuanced in some respects but of course if they were not aware of these differences then there was no dissonance to be resolved. It follows that they can hold contrasting theories with no psychological disturbance. In the following section this idea of 'nuance' will be exemplified.

7.3.2 Nuances in Dylan's theories of learning

In the first phase of field work, Dylan is asked what he thinks children should be learning in PE:

> "Ok what should they be learning in PE? Mmm.....In an ideal world they need to be learning SMSC......life skills......I think they are the most important thing that children can learn......being able to deal with competitive situations...working as a team...winning and losing graciously...communication skills. I think...are very high up there..." (Dylan 1: 3-7).

Here, it can be seen that his espoused theory about the aims of the subject are couched principally, in terms of personal and social competence. In the third round of field work he talks in a similar manner:

> "…for me the principle aim of PE is to get kids active…enjoying themselves…getting away from desks…teaching them life skills…working together...getting them to try new things…build their confidence…their all-round…kind of…person" (Dylan 3: 6-8).

In some ways, his response in the third stage, is even more focussed on the children's well-being than in the first. What is significant for this section on nuances is that when he is describing the 'exemplary lesson' in the second stage of the field work, he tends to privilege physical competence. He is asked to describe what happened in the lesson:

> "We warmed up with some bounding and some hurdling related warm-ups and then I got them into groups of two or three and they had one hurdle and I sent them away with a hurdle, this was on the 3G pitch, and said, 'right ok you've got three, four, five minutes to try…and work out the fastest way to get over the hurdle' and that's all I told them and I then said, I'm going to ask you what you come up with in front of the class when you gather back round...yeah they came back with some great ideas. One of them came back talking about 'leading legs' well except the 'first leg'...they didn't call it a 'leading leg'" (Dylan 2: 14-20).

Later, in the same interview he is asked about his observations on what the children were learning:

> "…but the thing that struck me...was that the lead leg...maybe that was all they were thinking about…trying to get it down…to the point that...maybe they were over doing it...it was good to see..." (Dylan 2: 63-65).

Dylan's espoused theories about the purpose of PE were principally related to social development. It might be expected that when he is describing the hurdles lesson, his language would reflect this. However, this does not seem to be the case, as his description of the exemplary lesson is framed more in terms of developing physical competence. Later in the second interview he is asked to consider the possibilities for developing social skills in the hurdles lesson, a question that could be seen as a reminder:

> **CC**- When we spoke before you spoke about life skills...when you think about the hurdles lesson…are there examples there or potential for life skills to be learnt there?
>
> **Dylan**- Mmmmm…I guess socially they are working together…in the first part of the session…and then they are left to their own devices (2: 119-122).

What is significant here is that when Dylan asked how the social possibilities he spoke about as an espoused theory might have informed his hurdles lesson, his reflection is tentative and hesitant. He starts with a long 'mmmmm' and then there is a gap. Then presents the sentence in a very tentative manner when he says, 'I guess socially

they are working together'. It is possible that at some level, Dylan sees that talking about the aims of PE and the immediate problems presented by helping a class of children learn to hurdle, are separate. Heidegger (1978) spoke about language as 'the house of being' by which he meant that language is the way in which the meaning of the world is manifested. It might be that at some level of consciousness, Dylan sees talking about the aims of the subject and teaching the subject as different elements of his lifeworld.

When asked about teaching strategies he felt were particularly effective, Dylan says,

> "Mmm I don't know…..I can't answer that at the moment…..I am thinking about it…Mmm…….I feel that throughout my career what I have done in the classroom or out on the field or on the track…..comes naturally to me…I could never really put my finger on…what I have done well…..or if I did why I did it…it just comes I find it difficult to express how I teach…"(Dylan 1: 124-127).

In this, he is talking in terms of what he does as a teacher in very intuitive terms. This perspective is redolent of the idea of teaching being viewed as a matter of professional artistry as expressed by Fish (1995). This regards professionals as, seekers of knowledge, rather than 'knowers'. It also advocates that professional judgement starts where rules fade and embraces uncertainty and professional intuition. There is also an assumption that 'quality' is not bound up in criteria but comes from deepening insight. This forms a considerable contrast to how he refers to the process of learning where he talks about it being highly conscious:

> "Kids need to understand the journey that we are going to put them on each lesson"
> (Dylan 3: 106).

He is saying that children need to have a meta understanding of the processes they are going through. Later he says,

> "Yeah...particularly I know I keep banging on about this but especially the groups I teach…they need to know…A B C and why they are going from A to B to C" (Dylan 3: 126-127).

On the one hand, when he talks about his practice as a teacher, he describes it as highly intuitive and operating principally at an unconscious level. When he talks about the children's learning he is talking about it as a rational and highly visible process. It should be noted that it is possible he does not see this as a matter of comparing like with like. This may also be an instance of the inauthenticity because this way of thinking about his practice, and the nature of children's learning, seem to be taken for granted. The phenomenological explanation would be that he sees himself as part of

Das man, a place where we act in the ways that are prescribed by the community in which we exist (Moran, 2000).

In the first stage of the field work Dylan is asked about the value of assessment grades:

> "No…Yeah I think levels can be a good thing...definitely.....I think they are a good thing...I think Kids do like......to be given a level...they get buzzing on assessment week...for their levels...but as long as they know why they are that level..." (Dylan 1: 320-322).

In this section he is articulating a strong preference for grades on the basis that he feels this is what children prefer. He claims that grades act as a motivator and his only caveat is that he wants the children to know why they are that level. It should be noted that he says, 'they need to know why they are *that* level'. This can be read as an example of Dylan seeing the children as being defined by their grade. This is a well-known phenomenon in education and in particular, has been noted by (Reay and Wiliam, 1999) who argue that the process of being awarded grades can be a defining aspect of some children's identities as students. In the final stage of the field work Dylan is asked if teachers need numbers to chart progress:

> **CC**- How necessary is it…for example I could be a student in your B group and be weak at triple jump and I might have gone from not being able to do a recognisable hop-step-jump to doing a recognisable jump is that enough or do I need that number?
>
> **Dylan**- I think that could be enough…I don't think...oh…Chris...I...think that is enough as long as they understand that they have gone from here to here (Dylan 3: 289-293).

In this instance Dylan says that charting progress in learning does not necessarily require a grade. He does add a caveat saying that the children need to know how they have 'gone from here to here'.

In this section the case has been made that Dylan's theories were nuanced in two particular ways. First, when it comes to his own practice, he described this as tacit knowledge and drawing on a 'feeling' but when it came to the children in many cases he spoke of it in terms of it being rational and subject to high levels of awareness. His espoused theory about the aims of the subject was focused on social learning, building positive relationships and promoting inclusive values. When it came to his description of the exemplary lesson this seemed to be replaced with more of a focus on technical mastery.

7.3.3 Nuances in Darcie's theories of learning

In the first interview Darcie is asked to reflect on any key principles that she keeps in mind when she is planning PE lessons:

> "Well I have a set of key words…that we take to every single sport we do so they are kind of drilled…we drill those into the kids quite early on…so they have accuracy, consistency, control and fluency and we use those words for the basis of our assessment, peer assessment, self-assessment" (Darcie 1: 113-115).

Darcie talks in terms of key words. There is a question here, as to whether the principle is, for the children to learn the words or understand the concepts that those words denote. She then talks about learning as a matter of passive repetition terms of, 'we drill those into the kids'. As always, there is a question that was not asked, about the extent to which the project becomes one of learning to apply those concepts or learning about the activity. The interpretation is that she is talking about learning as a form of 'transfer' and this can be considered to be a very convergent perspective.

By way of contrast, in the third interview she is asked to reflect some more on the idea of the teacher 'standing back', which had been a perspective that had emerged in her responses in interview 2:

> "In a way this is something we have been looking at...just for reference……I think that still is a good approach because then…you can see the gaps in knowledge or how the lesson develops because…it is just interesting to sit back and see how they approach it...because often there …is not…just one way of doing something...whereas sometimes we quite are rigid in our thinking that it has to be done this way and that there is only one way to get from point A to point B. But actually...to let them go off and do A-B-C-D-E and let them come back to their original thing…" (Darcie 3: 18-23).

In the initial section, Darcie is articulating a deeply divergent perspective. She says it is 'interesting' to sit back and see how the children approach it. She does not talk in terms of interpreting their understanding from what she sees. She moves into a deeply divergent mode when she says 'there…is not…just one way of doing something'. Then she takes a more rational perspective and appears to be assuming that mastery will follow a logical path when she describes moving from 'point A to point B'.

It can be argued that Darcie is expressing two quite different perspectives on how best to bring about learning. The first extract is very much about knowledge as certain and being 'transferred'. In the second extract she talks in very different terms at the outset. It is about her standing back and responding to what she sees happening. She is also taking a view that the children are different and that what happens is deeply heterogenous. Heidegger (1962) would say that language is about disclosing our 'being in the world' and so it may

be that Darcie sees the focus of her comments in a very specific way. In the first extract it is about planning and in the second it is about her 'standing back'.

In the first round of interviews, Darcie is asked how she fosters the social aspects in her lessons:

> "Usually a lot of…..basically…group work…where…giving a set of guidelines so they will interpret those differently as such…so each group will…come up with a different way…a different perspective depending on how they view the activity...how they see it...and basically the outcomes I hope they will achieve..." (Darcie 1: 13-16).

In this, she is talking about learning in a very divergent manner. She is linking divergence with group activities and the whole section is based on the principle of creativity. Later in the same interview she is reflecting on teaching less able children and references differentiation. Subsequently, she says,

> "Then it can start flowing a bit. Sometimes I think that the slow starters...once they get going they can be fine but they need a lot of kind of nurturing and pushing in the direction you want them to go" (Darcie 1: 81-82).

Her comment about the 'direction you want them to go' can be read as significant but ambiguous. On the one hand it can be read as an expression of convergence. On the other hand, it might be that the 'direction' to which she refers, is one of creativity and so is actually based on divergence.

When asked what principles she applies to lesson planning, Darcie spoke in terms of key words that she used to underpin her lessons:

> "Well I have a set of key words…that we take to every single sport we do so they are kind of drilled…we drill those into the kids quite early on…so they have accuracy, consistency, control and fluency and we use those words for the basis of our assessment, peer assessment, self-assessment, those are the words they are kind of looking at in terms of...where they are currently working at..." (Darcie 1: 113-116).

In the second stage of field work she uses the Outdoor and Adventurous Activities (OAA lesson as her exemplary learning lesson. It is noticeable that she does not draw on these. At the end of the second stage of field work she is asked how these informed her lesson.

> **CC-** Just one last thing. When we spoke before, you talked about the key words that you use. Did you use them at all in this lesson?
>
> **DM**- key words…oh yes...accuracy and control and so on…yes I am not sure that they were so …so...useful here…they tend to be more to do with skills I suppose…this lesson was more to do with problem solving…(Darcie 2: 502-504).

There are different ways to read this particular nuance. It may be that Darcie feels that those key words are more applicable to games teaching. It might be that they are a more

prominent part of her discourse in terms of espoused theories and don't necessarily shape her practice to a great extent. It is also significant that she sees problem solving as situated to that approach in OAA. Popper (1999) and Swann (2012) argue that learning is always a matter of a problem to be solved. How can a person master that content?

In the second stage of field work, Darcie is reflecting on the ways that she feels she is a better teacher now, than when she started:

> "………questioning…….ahmm……definitely the questioning…and….being able to kind to probe and get students from point A to point B just through a series of questions…in terms of knowledge of an activity or why we are doing something or…anything like that to get the right questions to get the right information at the right time………I would say that independent learning…is something I have ……kind of developed...assessment for learning through that as well…" (Darcie 2: 349-353).

In this she talks about getting the 'right' information at the right time. This can be read as her seeing learning in a convergent manner. From an assessment perspective, this can be understood as an assumption that she wants to know *whether* the child 'knows' and 'can do' rather than *what* they know and can do (Torrance and Pryor, 1998). This is an important distinction because of the assumptions each of those modes makes about the point of education. Finding 'whether' the children knows is highly convergent and assumes the end point of learning is prescribed. Finding 'what' they know is divergent and assumes that the aims of education are open ended. The references to point A to point B suggest that she sees learning as linear, although we cannot be sure how those points are established. If they are envisaged as external and 'correct' then that might be more convergent than if she sees those points established in some form of negotiation with the children.

What seems clear is that Darcie's personal theories of learning demonstrate nuance and the specific instances have been presented in this section. These nuances were most clearly seen in the differences between learning as convergent or divergent and in terms of the process of learning requiring meta cognition.

7.3.4 Nuances in Ruby's theories of learning
When asked about the aims of the subject, Ruby spoke about education, and in particular, she mentions education about fitness which we can take to be physical fitness:

> "I think that from a very early age one of our jobs is to educate the children…you know…a small part of it…in fitness so they understand what is happening to their bodies when they are exercising and things like that…progress…team work…partner work…knowledge of different sports…thinking skills…understanding new sports" (Ruby 1: 4-6).

Ruby also lists a range of items. It is significant that she describes progress as if that is an aim of the subject in itself rather than progress in some aspect. It should be noted that notions of 'progress' are at the forefront of Ruby's consciousness and there is a case to be made that she sees this as a form of reification. In a further consideration of this in the third phase of field work, she talks about progress and is then asked what that means to her:

> "That is all that is drilled into you...progress progress progress in CPD meetings and teaching meetings and everything" (Ruby 3: Lines 120-121).

This would suggest that at some level she sees the demands of performativity to have caused a second order aim, such as a level of attainment, to become a first order one. The prime purpose of learning in PE is no longer helping children achieve mastery over particular content and then that being awarded a grade. What seems to have happened is that, in her mind, the grade, or in this case an improving grade, becomes the first order purpose. In this response she is also articulating a lack of agency which can be read as an example of her being inauthentic because she appears to be accepting of things and experiencing events as other people do. "I am no different than others, I am simply experiencing as they do, as one does" (Moran, 2000: 239).

In the second stage of field work, Ruby had spoken about children developing confidence. As part of her reply, she talks about competence being revealed in the way of a kind of connection forming between the student and the activity:

> "…and as a teacher I will say to them that there will be a sport that you will be really good at …and there might be a sport that, you know, you find it quite difficult but you must try…and what you see is their confidence blossom…..because that girl was…may not be so good at gymnastics…but she is fantastic at shot putt...or she is not good at netball but she is brilliant at running…" (Ruby 2: 74-78).

This can be interpreted that regarding learning, she is holding a number of perspectives. Any notion of progress is missing here. Instead, she also talks about 'finding' the activity you are good at so the project is not so much about mastery but seeking to match student and activity. It should be noted that Ruby does not talk in terms of finding an activity that the children enjoy or has intrinsic worth to them but privileges competence. At some level there might be an assumption that one can be competent without going through a process of learning.

There were a number of occasions when Ruby spoke about learning as a process that involves meta cognition. In conveying the aims of the subject, she says,

> "…so they understand what the objective is so they have to think for themselves…well if we are doing this technique why are we doing it..." (Ruby 1: 6-7)

In this, she talks about understanding the objective and the children thinking for themselves. There is a case for saying that implicitly, she privileges technical demands. It must also be acknowledged that she then goes back to 'understanding the technique'. Later, she has described, 'putting it all together' and she is asked what that means to her:

> "…we done that…it is trying to let children understand…why they are learning something and where they can take it…..yeah?" (Ruby 1: 116-117).

Again, she talks in terms of the children knowing why they are learning, something which should be interpreted as a form of meta cognition. Her comment about 'let the children understand', should be reflected on. To 'let' implies that there is some kind of permission being granted for the children to understand and so at some level she sees this as a 'gift' she can give to the children?

In the second phase of the field work, Ruby describes a Year 7 long jump lesson as her exemplary lesson. It is striking that she does not talk in terms of meta cognition. In fact, she tends to privilege aspects such as peer-based learning and leadership:

> "I used my more able students who…had been coming to Athletics club…to give more help to other students who have never done long jump before…so the more able students were getting more out of the lesson because they were using leadership skills…and the…..new to long jump students…were learning from their peers ..and how we moved on from that then..." (Ruby 2: 6-9).

It is significant that the first aspect Ruby addresses is how she used the more able students in a leadership role. She says that the 'more able' were getting more out of the lesson'. Getting 'more out' can be interpreted as a way to understand learning. She also says that the 'more able' were 'using' leadership skills and does not talk in terms of any kind of trajectory. What she does not do at this point, is draw on notions of meta cognition. This can be interpreted as an instance of minimal congruence between espoused theories and theories in action which is a nuance that was also evident in the interpretations of Dylan's theories.

Ruby theories also showed nuance when she was reflecting on teaching style. At various points she spoke in heuristic terms about the children having time to explore and experiment. In the final interview, she is asked to expand on how she sees the value of children exploring, which had been a feature of her replies in the first round of field work:

> "…Umm I suppose it is different teaching styles so…I differentiate my lessons with the different groups that I have got…so the exploring is a teaching style that…I have forgotten the name of …where you just give children the chance to…let's say you are teaching them rugby they can go off with the rugby ball and find the best ways of passing it and throwing it…you know their own interaction with each other with the rugby ball…and then come back…so yes guided discovery" (Ruby 3: 5-9).

Ruby talks about 'exploring' not as something that the children do, but as a teaching style, although she then describes it in a slightly distanced way. This is evident when she says, 'it is where you…'. In the first round of field work she is asked what someone might see if they were watching a very good PE lesson:

> "…reflection of what is being taught…independent learning…explore and experiment with techniques…" (Ruby 1: 196-197).

Ruby responds to this in terms of what the children might be doing. In the final interview, when asked about the nature of assessment, she begins to say that there is more to the project of PE than gaining a grade:

> "But no they would not be thinking of that at all...because it is not…I am not letting them think that…I am letting them enjoy exploring…the learning of badminton the learning of whatever…sport it is…" (Ruby 3: 252-253).

At this point, she is talking about exploration in terms of intrinsic worth. She speaks about 'letting' them enjoy exploring and, in terms of grades she says, 'I would not let them think that'. This suggests that, intrinsically, she feels she has power in a particular way. In the final round of field work she is asked if she sees the communication aspect of PE lessons as having intrinsic value:

> "Yeah it is intrinsic value because…they are actually...it is the kinaesthetic of doing something isn't it and learning…and interacting together..." (Ruby 3: 109-110)

At this point Ruby is taking the position that the act of exploration has intrinsic value. This endorsement of intrinsic value is worth juxtaposing with her comments about progress. She is asked how she understands progress and is clearly and considerably exercised by the emphasis on this:

> "That is all that is drilled into you...progress progress progress in CPD meetings and teaching meetings and everything…" (Ruby 3: 120-121).,

As with Dylan and Darcie, Ruby's personal theories exhibited considerable nuance. In particular, her different use of the term, 'explore' is a helpful way to make interpretations about her theories of learning.

7.3.5 Nuances in Jude's theories of learning

In the first stage of field work, Jude spoke about the importance of leadership and coaching:

> "I think two other areas that probably slide under the radar a little bit are leadership and coaching. I think in a PE environment we should definitely be teaching students to be good leaders and teaching them coaching skills" (Jude 1: 23-26).

Jude says that children should be taught to be 'good' leaders. His description of 'good' is ambiguous because this can be interpreted to be a norm-referenced perception. This is because 'good', might be seen to denote that the level of competence is significantly better than for other children. It can also be interpreted that, in his mind, 'good' means competent and about being the best leader they can be. This latter perspective is more of an individualised or self-referenced one. Later he talks about leadership as a trait:

> "…it can reveal character traits within a person but I think also it can...it develops strong character traits as well. It develops traits such as...as confidence, leadership, communication, uhm...all those are really, really vital...teamwork" (Jude 1: 54-56).

Jude uses the term, 'develops' which suggests a strong learning orientation. By defining leadership as a trait, it can be interpreted that Jude assumes a level of permanency. In the second stage of the field work, Jude is describing his exemplary lesson with the Year 7 class learning about Badminton. He is reflecting on the warm-up task where the children were working in groups:

.

> "…all the kids were engaged there was some clear leadership…going on there…" (Jude 2: 42-43).

Jude is talking about leadership 'going on' and in framing it in these terms, at this moment, perhaps he sees it as a form of 'purposeful occupation' rather than something that is explicitly related to learning. It is also possible that, at an implicit level, he assumes that such 'purposeful occupation' *is* learning.

In the second round of field work, Jude draws a clear distinction between children who are academically able and practically able and uses the idea of leadership as a domain of learning in PE:

> "…they might not be the best player on the pitch...in a particular…or on the court in a particular game…but their leadership skills might be...by far the best..." (Jude 2: 207-209).

It is to be noted that children were sometimes described as not being 'the best'. This can be considered to be a kind of trope or 'set piece' expression and might indicate a degree of inauthenticity. Jude goes on to describe a capability in leadership as a way to recognise competences other than performance. Arguably, if the focus was on learning as improvement, this would not matter. In this section he defines leading as a matter of skill rather than a matter of wisdom, integrity or the ability to absorb information (Brown, 2014). A skill can be understood more as a learning ability to do something. Many PE teachers are familiar with Knapp's (1963) famous definition of a skill as, "A skill is the learned ability to bring about pre-determined results with maximum certainty; often with the minimum outlay of time or energy or both." From the field work it seems that Jude sometimes describes learning as a skill, but at others, he is describing it more as a personal quality.

It should be noted that in the first two rounds of field work, Jude privileged leadership in his discourse. In the final interview he makes just one reference to leadership which is in a response to how he sees the aims of assessment:

> "...so we look at...the students fitness...as one area...we look at...their ability to coach…we look at their ability as a like leader...leadership qualities..." (Jude 3: 22-23).

In considering the nuances in Jude's theories about leadership, it seems that there are variations in how he sees 'leadership'. He talks about it as a trait and also as a skill. In addition, he portrays it as an alternative domain of competence in a PE context. This is very much in line with the kinds of personal qualities that are endorsed by Laker (2000).

In the final stage of the field work, Jude is asked to reflect on how important it is for the children to have a lot of attempts in lessons:

> "Yeah yeah 100%...doing it and making those mistakes...doing it right and doing it wrong and learning from that is definitely the way to do it…I think in that lesson, well any lesson to be honest…let them experience it for themselves rather than…you telling them what to do...for the majority of the lesson and then having a small amount of time to try it for…for themselves…cause…I think any student learns by doing it and making those mistakes or getting it right being successful and then continuing to do that" (Jude 2: 528-533).

In thinking about learning, Jude is acting as a strong advocate for a heuristic approach as he talks in terms of 'making mistakes' and, in fact, says that is 'definitely the way to do it'. He is also arguing that, effective learning is an experiential process when he says, 'try it for themselves' and 'let them experience it for themselves'. At this point, he is talking about learning in a deeply divergent manner which represents a significant nuance to some other convergent perspectives. In the third round of field work he is asked about the aims of the subject and at one point, is suggesting that it is important to look wider than technical aspects:

> "...and we are trying to move away from that…we are saying ok that technical ability is very important…but there is a wider range of skill set...that we want to create here with these students and there are more things we want to develop…" (Jude 3: 27-29).

When he uses the phrase, 'move away' it can be assumed that he is referring to the move away from seeing PE as principally a project to develop technical aspects. Jude then speaks about this expansion in terms of a wider range of skills and says that the project is one 'that we want to create'. Jude understands the project is one where the PE department ('we') are seeking to create a more divergent set of assessment criteria and so there is an assumption that this is owned by their professional community. This focus can also be read as a matter of a location of power as it should be noted that Jude was the head of department and spoke about practice in terms of 'we', a good deal during the fieldwork. In this instance, it is important to ask, who is doing the creating? When this is juxtaposed with the previous extract, a slight shift in emphasis is evident. The tone of his reflection also differs when talking about assessment. The following extract is one that is part of a long series in which Jude speaks about the place of assessment in learning:

> "…at the moment we think you are on this particular level and we would like you to show us evidence that you are on this level by the end of the lesson" (Jude 3: 43-45).

What can be said, is that Jude's support for heurism as a classroom activity, displayed a divergent perspective. This was particularly evident when he spoke about moving away from an exclusively technical focus. However, when it came to assessment, he

appeared to move to a more convergent approach. He is saying that the children now have to 'show' the teacher evidence that they should be on a particular level. This is significant for three reasons. First, his notion of the children 'showing' evidence would suggest that there is an implicit assumption that the 'prize' for learning is gaining the level rather than any intrinsic worth. This is in contrast to the idea that we are most motivated when we find the task to have an intrinsic appeal. Second, he says that the children have until the end of the lesson to 'show' they are on this level. This can be interpreted as another example of first and second order purposes being inverted. It might be thought that learning is the first order purpose and then the grade is a form of second order validation. As he describes things, the grade has become a first order aim and the learning a means to get that grade. Third, that this can be seen as a further move to a convergent perspective because the focus is now on 'whether' the student can demonstrate this rather than the teacher seeking to find 'what' they know.

In the final round of field work, Jude is reflecting on how he sees the aims and purposes of teacher questioning. As part of his response he says,

> "If a student answers a question a certain way and it is not what you were expecting or it is not the answer you were looking for...then rather than going that is not quite what I was looking for and moving on...maybe it is better to say...oh that is interesting never thought about it that way …could you elaborate further...and then get another student to say what do you think of that..." (Jude 3: 208-211).

The student response not being what the teacher 'expected' can be understood in different ways. First, it might be that the response was not really addressing the question which, in itself, can be a helpful source of information for the teacher. It might also be that Jude is seeing this in a much more convergent manner and at some level of consciousness, he is now seeking to find 'whether' the child 'knows' rather than the more convergent 'what they know'.

Later in the third interview, Jude is reflecting more on questioning as a teacher strategy. He talks about giving the children 'think time' before asking for a response:

> "…so a lot of the time…particularly…in my practical lessons we will have 30 seconds where they have to discuss a topic with their partner...30 seconds I want you to discuss this topic …come up with three points on this or whatever it might be and they do that with the person next to them…so 30 seconds completely talking about that...then they have done that even if they have no ideas they now all have some ideas and have all shared that…then you ask the questions and the quality of the answers you get is so much better..." (Jude 3: 224-229).

The idea of 'think time' (Black et al., 2003) is well marked in the literature around educational assessment. What is significant here, is his comment about the 'quality' of answers. This can be interpreted as him seeing that the answer should be insightful or that the answer is 'quality' in the sense that the child is describing their construing and the teacher can then use that as a guide to their next actions. A little later, Jude is talking about being in a CPD setting with colleagues and he then suggests that similar principles apply:

> "…oh there are as 100 adults in the room and I have got to speak...I was not prepared for this...it is exactly the same…you start to think…what can I say? How do I get out of this with my…….. with my dignity intact? Can I say something intelligent here? It is exactly what the students are doing as well" (Jude 3: 247-250).

This is very helpful in making interpretations about his personal theories. If it is possible to draw a parallel between a child in a class and a teacher in a group, then Jude appears to see the process of the teacher answering questions, as that of preserving one's dignity. There are two important issues here. First, that Jude is asking the children to reflect on their learning in a PE lesson, that is likely to be practical. Practical PE principally involves procedural knowledge which of course may well lie beyond discursive consciousness. By asking the children to talk about learning procedural knowledge, there is a form of category error. Of course, it is quite possible to have propositional knowledge about something that is more readily associated with procedural knowledge. For example, an elite badminton player would be able to execute an overhead clear in Badminton and that would be a matter of practical knowledge. Of course, it is also possible to theorise how to perform an overhead clear in a theoretical and abstract manner which would involve propositional knowledge. However, when assessing procedural knowledge, it may well be better to ask the child to 'show you' the movement. In that way, knowledge is revealed in the doing. In basketball, a child might gain the ball on the edge of the restricted area, as the defender approaches they make a head and shoulder fake and then drive to the hoop. To execute this requires a high level of understanding as the various sub routines have to be carried out accurately and also at the correct moment. However, the point is that this might lie beyond discursive consciousness. In other words, the child can do this but might not be able to articulate it with any clarity. This can be seen as related to Sennett's (1997) comment that the craftsman knowledge 'lies in the fingers' and so is beyond ready articulation. Similarly, in a professional context, Polyani (1966) claimed that much knowledge is not visible and cannot be discussed, as 'we know

more than we can tell'. Indeed, Claxton (1984) argues that much knowledge is made visible in context. That is to say, the person is placed in a context and this can help the person recall what to do. This can be envisaged as a deeply embodied perspective and Heidegger (1962: 37) says, "*Dasein* finds 'itself' proximally in what it does, uses, expects…." In a skill acquisition discipline, Schmidt (1975) claimed that a person returning to an activity may well demonstrate the movements if they were well learned but that the temporal spacing may require time. The second point is that Jude sees the purpose of questions as a matter of displaying competence rather than a way for the child to make their construing visible to the teacher. The argument being, that in this context, a 'good' response would be one where the student is open and knows that the teacher will use what they say as a way to adjust what they are teaching.

The nuances in Jude's theories were most evident in how he spoke about teaching that encouraged a heuristic and open approach. It was noticeable that he then spoke about assessment in a much more convergent manner. He also spoke in terms of the importance of children showing what they could do and then at other times was drawing on a discourse of discursive consciousness. This was especially evident in his advocacy for questioning as a way to check the children's understanding.

7.3.6 Nuances in personal theories: Summary

The second theme in this chapter was that of nuance which is taken to refer to the idea of shades of meaning. It seems clear that the participants' theories were considerably nuanced. Of course, this nuance can be seen as related to the notion of being explicit and implicit which was considered in section 7.2 and also in a range of other ways that was examined in this section. The principle sources of nuance were at times, related to shades of difference in seeing learning as in a convergent manner and at others, in a more divergent manner. 'Times' here is referring to the idea that what we say is always 'in the moment' and if asked the same question at another time we might respond differently. If it is seen as convergent that the aims are prescribed and there might be an assumption that learning can be subject to prediction and control. In a more divergent mode, learning is seen in an increasingly idiosyncratic manner. The idea that the teachers' theories of learning are nuanced in this manner, should be taken as a phenomenon and not as any kind of criticism.

7.4 - Conclusions

In this section it has been argued that in this research, two of the most significant characteristics of how learning appeared in the participants' consciousness was first, that theories could be espoused and that theories were tacit or held implicitly. Second, that the theories are subject to considerable nuance. A significant nuance is that the theories are held as espoused theories and also as implicit theories. In addition, the participants' personal theories of learning were interpreted to be considerably nuanced. These two themes should be viewed as the primary findings. There were also a range of heterogenous secondary findings that were identified in this chapter and are summarised in table 7.1. There are a further two themes that are worth reporting on, here. First, the idea of inauthenticity where *Dasein* asks what does it mean to 'be' and initially, does not distinguish itself from the world around itself. That is to say, it is immersed in, or exists by 'being in the world' and for the most part, we carry on with our everyday lives out of habit and we do things but do not consciously consider we are doing them. It is only in moments where we no longer take the world for granted that Heidegger (1962) would see we might be authentic. The question then, is what this might look like in the field work. It seems likely a moment of authenticity would involve the participant in questioning the dominant discourse or in a moment of revelation. Of course, it is quite possible that they might not wish to reveal this in a research interview. In this chapter, moments which can be read as inauthentic, have been highlighted and this is a theme that will be returned to. The second theme was that of divergence and convergence which appeared in some form across all the participants' responses. It seems as if they felt that a divergent approach was preferred in some ways but that this was more in the theoretical and abstract and when it came to describing practice, they often adopted a more convergent perspective. In this a convergent perspective is assumed to be one where there is an assumption of a definite end point whereas a divergent perspective is one where there is no set final point to be reached.

Engestrom (2009) argues that any theory of learning must address the issue of what is being learned. In the next chapter it will be argued that, considering how the participants understood the aims of the subject, is a powerful way to make interpretations about their theories of learning.

Summary of analysis- Personal theories of learning as espoused and implicit

	Espoused theories	Implicit theories
Darcie	• That PE is about learning communication. • She is a keen advocate of growth mindset • She seeks to develop student agency • She seeks to transform the learner • She advocates heurism	• Sees classes in a norm referenced manner • Assumptions of convergence in learning growth mindset • Learning is a matter of 'picking up'. • Fast acquisition is not necessarily seen as learning?
Dylan	• That he 'sees' understanding in the children • That learner is aware of processes • That the lesson is about seeking happiness • That heurism is a powerful way to learn • That learning in PE involves thinking • Children 'know' why they are doing what they are doing.	• That learning is a rational process • That how he teaches depends on how he trusts the class • Learning is done 'on their own'. • He 'allows' time to practice- it is a privilege? • Learning is transfer • Learning can be finished
Jude	• Learning in PE is about decision making • There are 'right' options • Competition is energising for all children • Assessment is vital in order to chart progress • Teacher is at the heart of classroom events	• Assumptions of convergence? • The capacity for decision making is not situated in context. • The process is about revealing competence • The 'lesson' has worth as a performance • Success in learning is 'how much'. • Teaching can 'cause' transfer
Ruby	• Lesson objectives are crucial • Assumption that the children learn from teacher explanation • Good teacher knowledge is essential for learning- Teacher is at centre of events • Learning is visible and measurable	• Objectives are privileged • Takes a generally technical perspective • Does not acknowledge the place of tacit knowledge • Learning can be finished
Personal theories of learning are nuanced		
Dylan	• When talking about the aims of PE it was couched principally in terms of social development and inclusion. When he spoke about his exemplary hurdles lesson, he tended to focus on technical development. The social development was moved to the periphery. • He frequently spoke about the children learning in a rational manner. As if it was visible, subject to high levels of awareness and discursive consciousness. When he spoke about how he taught, he drew on notions of tacit knowledge and intuition.	
Darcie	• When asked about planning she says that she draws on key words and this is described as if the process of learning in her consciousness is convergent and bounded. When she describes the OAA lesson she is talking as if she employs a divergent approach and she is assuming that the process for the children is one of idiosyncratic personal sense-making. She also says that her key words are less useful in an OAA lesson. • She is talking about how she feels she is a better teacher now than when she started. She says that her capacity to ask questions has improved and then talks about the 'right' question to get the 'right' information. Here she is taking a convergent position but also speaks in terms of divergent outcomes.	
Ruby	• Talks about PE as a change to discover the thing you are good at. A case of competence revealed. She also talks in terms of progress. In this, sometimes refers to 'progress' as a thing in its own right.	

	• At times she spoke about the lessons in a very divergent manner with references to children 'exploring' and learning about health and fitness. At times she is advocating independent learning and there is a sense she is happy to empower the children. However, she also talks in terms of 'letting the children understand' which implicitly suggests she feels she has power'. Also, the focus on progress seems to run slightly contrary to this.
Jude	• He is an advocate of leadership. Tends to talk in terms of revealing it more than developing it. • Tends to assume that PE can develop leadership and is not obviously concerned with how it is taught. • He speaks about leadership as a skill and also as a trait. • He talks of assessment as being a way for teachers to be able to judge progress and also about children showing the teacher that they are worthy of a particular grade.

Table 7.1. Summary of findings presented in chapter 7

Chapter 8 – Interpreting the participants theories of learning through consideration of how the aims of the subject appear in their consciousness.

8.1 - Introduction

In Chapter 5 it was established that an important principle of phenomenology is that human consciousness is always being directed at something which is referred to as intentionality (Wrathall, 2005; Langdridge, 2007; Zahavi, 2019). In this chapter the ways that the participants spoke about the aims and purposes of teaching PE will be considered on the basis that there are two phenomenological justifications. First, that there is an element of intentionality. That is to say that how the participants directed their consciousness on their work with their students is a matter of where their consciousness was focussed. Second, that this is a matter of embodiment as the ways that the participants describe what they were intending to achieve is a valid source of interpretations about their personal theories of learning. In phenomenological terms this is the notion of 'care' which was outlined in chapter 5. It also draws on the idea that any theory of learning must acknowledge 'what is to be learnt' (Engestrom, 2009; Marton and Tsui, 2004). In chapter 7 it was claimed that the main characteristics of the participants' theories of learning were that they were simultaneously espoused, implicit and that they demonstrated considerable nuance. In addition, a more tentative interpretation was that for the most part the participants appeared to be living their professional lives in an inauthentic manner. That is to say, their world appeared, for the most part, to be taken for granted. These are themes that will be employed to inform the analysis in this chapter.

As it is assumed that learning always involves somebody learning something, then it follows that, how the participants understand that 'something' is highly pertinent to interpreting their theories of learning. Interpretations about how the participants understood the aims of PE will be considered in this chapter and then the implications for their personal theories of learning will be presented. This is important as it is recognised that in terms of embodied cognition "...thought is mostly unconscious" (Lakoff and Johnson, 1999: 3). Indeed, this is also a perspective that is held by Dennett (1991) who claimed that mental processes are not readily accessible. An example of a more espoused response is:

> **CC-** So...in your ideal world what do you sort of think...children should be learning in PE?

Dylan- Ok what should they be learning in PE? Mmm.....In an ideal world they need to be learning SMSC......life skills......I think they are the most important thing that children can learn......being able to deal with competitive situations...working as a team....winning and losing graciously...communication skills. I think...are very high up there (Dylan 1: 3-7).

Such a question invites a specific and espoused theory. In the example above Dylan advocates a range of aspects such as life skills, dealing with competition and communication. Of course, any statement of consciousness will have an implicit element. In this case, Dylan's comments about 'being high up there' suggest that perhaps he sees this in a hierarchical manner. In taking an embodied perspective this is to be expected as there is no separation between emotion and cognition (Damasio, 2010) and we are not dispassionate calculating machines (Westen, 2007) but hold all manner of subjective positions about the world.

An example of a more indirect way in which perspectives on the aims of the subject can be interpreted is where Ruby is asked a supplementary question about how she understands the importance of children 'thinking for themselves' which is something she had mentioned earlier in that interview:

"…so I find it so important that students have think for themselves…ok we are learning badminton today...but they have to think for themselves…well what is badminton…what...you know…how could you create your own game…with this racket and this shuttle…and I just think children need to think more than be dictated to and kids are really good…with…you know...with answers a lot of the time…" (Ruby 1: 31-34).

Ruby is stating that, for her, a prime purpose of the subject is to foster, or provide children with the opportunity to have some kind of autonomy or self-direction. Such a claim can be viewed as an espoused theory. This is also the case when she says that, "…children need to think more than be dictated to...". Ostensibly, the message is that being told something precludes thought or even that children will only think if they are invited to do so which indicates she holds a theory that there is a causal relationship between teaching and learning. However, it should be noted that this was not something that featured when she was asked directly about the aims of the subject. Although, of course, we all know 'more than we can say' (Claxton, 1985) and this should not be seen as particularly significant, just a matter of priorities in the moment.

In this chapter it will be argued that it is possible to interpret how the participants see the aims of the subject both from their espoused comments and by interpreting what they say in terms of the implications for the aims of the subject. At this point it is important to distinguish between the 'aims of the subject' as the participants might see them and also bear in mind that some of what they do may be very much a part of the 'natural attitude'. It is to be assumed that many of the participants responses are instances of them employing language in a relatively unreflective manner by drawing on established discourses of their community and so can be viewed as moments of inauthenticity (Heidegger, 1962). One of the features of the inauthentic state is that it might mean that teachers take aspects of contextual behaviour as given and so the inauthentic self could be shutting down ways of seeing the world that might be enriching. However, it is important to bear in mind that this project is seeking to interpret personal theories of learning and not explain them.

In 'Being and Time' Heidegger (1962) argues that there is a two-fold process operating. That we have a preconceived conception and also that this conception is located in a wider set of understandings of the world.

> "We conceive of it in some particular way or other (our fore-conception),
> a way which is itself grounded in a broader perception of the particular
> domain within which we encounter it, which in turn ultimately embedded
> in a particular totality of involvements." (Mulhall, 2013: 85).

This is relevant to this research as while the main purpose is to interpret the participating teachers' theories of learning, it needs to be remembered that those interpretations will be based on verbal reports that arise from preconceptions. Dahlberg Et al. (2008) refer to this as 'pre-structures' and 'fore-meanings' that are to be found in our internal world and means that no interpretation is free from presupposition. In phenomenological terms this can be understood as facticity which is a dimension of *Dasein* that refers to agency. This in turn is related to the idea that much of our agency is limited as is framed by the way we are 'thrown' into the world. This inevitably shapes the possibilities we have to interpret our consciousness. The participating teachers in this research will be bringing many preconceptions about the aims of the subject, some of which they may be aware of, but others less so. This can be understood as people having a field of consciousness where they will

pay attention to some things and not to others. What is important to note here is that if it is a matter of consciousness, then a person can shift their attention at any moment (Searle, 2002). In this project it is highly possible that the participants will have theories about the aims of the subject which come readily to mind but that there will be others that are 'revealed' in the process of the research.

Therefore, in seeking to understand the participants' theories of learning, it is important to consider how they see the aims and purposes of the learning that they are seeking to bring about with their students.

This chapter is organised under three themes. First, that of Personal and Social attributes; Second, conceptions of health and fitness and third, knowledge, skills and progress. It should be noted that many of the participants' responses cut across these three themes and these should be viewed as highly permeable. In addition, they should be seen as a way to present the interpretations that has sufficient structure for the key ideas to be highlighted but is not so organised that the sub divisions become artificial.

8.2 – Developing Personal and social qualities as aims of PE
8.2.1 Developing personal and social qualities as an aim of PE: Introduction.

When asked to identify what they saw as the aims of PE, all of the participants, at some point espoused what have been classified here as 'personal' and 'social' attributes. This line of thinking has informed the discourse in PE for many years and has been acknowledged in a number of studies (Laker, 2000; Bailey Et al., 2009; Opstoel, Et al. 2020). As might be expected, while this was an aspect that was espoused by all the participants, there were differences in emphasis. The attributes that the participants identified included elements such as 'life skills', 'becoming a better person' and 'leadership'.

8.2.2 Participants' theories of personal and social qualities as aims of PE

In the course of reflecting on his exemplary lesson, Jude talks about the new assessment framework that the PE department had introduced. He proposed that, in terms of the aims of PE, there has been a shift in recent times from a focus on physical competence to other more personal qualities:

> " ….and it is not just the traditional physical attributes…Mmmm...so we look at things like their leadership, their coaching, their technical ability, their understanding of tactics, their application of theory, their fitness,……their character...and…their sort of...commitment and their motivation their mindset towards PE a positive attitude and all those sorts of things so we look at all those strands and obviously you don't look at all those in a single lesson but across the course of the year in different activities they are the things we focus on…and I think that is a good thing because…I think…if you go back 10-15 years you…you would see a lot of...a lot of students in PE children being judged purely on their physical ability…so...yeah…we assess them...as a more rounded student I think" (Jude 2: 176-184).

This is a significant statement for several reasons. First, Jude makes a specific reference to a historical perspective which can be read as 'facticity'. Facticity is the idea that all our fore-understandings are framed by how we see the antecedents which is an important dimension of *Dasein.* Second, he talks about the aims of the subject being a concern with personal qualities such as leadership, the children's capacity to coach others, their character, their motivation and mindset. It should be noted that he talks about this in terms of observation as he says, 'we look at' these qualities. In this there is less of a sense of the process being constructed as an incremental gain in knowledge rather, as one where they are looking for it to be revealed. It is also significant that he talks about the children being 'judged' although it is not clear at this moment how this is to be interpreted. The idea of being 'judged' might be read as a form of performativity or as a way to inform formative assessment or a combination of both. This suggests that, at some level of consciousness, he is seeing the process as one where teachers are looking for particular characteristics and making assessments. In the first interview, Jude is asked about whether the process of learning in PE is one of developing or revealing character:

> "…so it definitely...can...it can reveal character traits within a person but I think also it can...it develops strong character traits as well. It develops traits such as...as confidence, leadership, communication, uhm...all those are really really vital...teamwork. Those sorts of core...core character traits that can be developed as well and those are the sort of things that...I know my PE team we...we work hard on making sure that the students do develop in those areas" (Jude 1: 54-58).

It is significant that Jude refers to character as a 'trait'. To see aspects of character as a trait assumes that he views this as a permanent characteristic that is almost part of a person's genetic inheritance. In a sense, then, an acceptance of trait would

suggest that he does not necessarily see children's attributes as being malleable. However, at the end of this section he is very clear that this is one of learning as he talks about, 'making sure that the students do develop in those areas'. He also talks about *developing* character and so he appears to be holding both positions and this should be read as an instance of nuance. Later in the same interview he says,

> "Uh...I think...you know you can get someone who is particularly shy or particularly introvert and PE can really bring them out of their shell so...like I say...I think that can reveal...you know...some character traits that maybe even the student never thought they had/..." (Jude 1: 50-52).

In this extract Jude is talking in terms of PE as a space where children can 'come out of their shell' which can be interpreted as him seeing children able to show their 'true' character in PE. This, in turn, assumes that he sees that a person has an essence, suggesting that he is open to the possibility of children developing, but this development is less in terms of increased competence and more in terms of becoming more confident. This is related to the idea of 'entity perspective' (Dweck, 1999; 2015) where people may assume that we are fixed in some ways. It is also important to highlight that he does not assume that the children necessarily have high levels of self-awareness as he describes the children as, 'surprising themselves'. Of course, it has to be remembered that this is Jude's interpretation of events. In the first round of fieldwork, Darcie responds to a question about the aims of the subject:

> "I would say…..basically guidelines for…..working together...team work...social interaction… being able to interact with others…leadership...different styles of leadership…..learning about …how to work as part of a team…if they work independently being able to slot into a team structure……probably lifelong goals for continuing with physical activity...into their teens and the rest of their.......kind of…..existence really..." (Darcie 1: 4-8).

In Darcie's espoused claims for PE, she talks about opportunities to demonstrate qualities such as 'working together' and 'social interaction'. Like Jude, she does not frame this in terms of increasing competence but more as an opportunity to 'reveal' what the students know in those respects. For example, she says, 'being able to interact with others' which suggests a competence that to some extent, she is assuming already exists. Darcie spoke about leadership as an important element of

PE and she described 'working' as a team and so 'working' appears to be used as a synonym for learning. She claims that children can 'work' independently and also slot into a team. This can be interpreted as a nuance but can also be seen as two qualities that might be demonstrated at different times depending on the demands of the task at hand.

In the third interview Dylan talks about the aims of PE in terms of getting children active.

> "… for me the principle aim of PE is to get kids active...enjoying themselves…getting away from desks...teaching them life skills...working together...getting them to try new things...build their confidence...their all round…kind of…..person...just getting them active..." (Dylan 3: 6-8).

With regard to the social and the personal aspects, Dylan is talking in terms of getting children active, enjoyment and 'working together'. In the way that he speaks, here, the project of learning in PE is couched more in terms of what might be deemed to be 'purposeful activity' than learning. Although it may be, that at some level, he does see this as learning.

Throughout the field work the participants talked about the possibilities for leadership in PE. Often, this was described as a skill:

> "There is leadership skills where for example in gymnastics we usually get a lot of top gymnasts..…gymnastic students who will then teach…" (Ruby 3: 20-21).

Later in the same response, Ruby talks about the possibilities of leadership in fitness although this is not expressed as a matter of personal growth but more as a matter of doing:

> "There is fitness…you can have some students…once again leading and teaching their peers..." (Ruby 3: 22-23).

It should be noted here, that while there was a support for leadership as an aim of PE, none of the participants attempted to justify it as an educational aim. It appears that they assumed it to be an intrinsically 'good' thing. In any future research, along similar lines, a more in-depth consideration of what the teachers feel is the value of leadership would be a helpful line of inquiry. As with Jude, Ruby talks about the aims of the subject as a form of personal development. She says,

> "…OAA outdoor and adventurous activities...because that is where the more introvert student comes through..." (Ruby 3: 23-24).

The term 'coming through' can be read as Ruby viewing OAA as a form of lesson content where some quieter children become more confident. It is not clear whether she feels this is an aim or a kind of side effect. Again, this can be interpreted to be a form of competence being revealed rather than developed. It should be noted that a primary construct of how she sees the children is, in terms of personality, a point that is developed in chapter 9. In describing her exemplary lesson, Ruby spoke in terms of leadership. In this moment she frames this more in the 'language' of learning as she talks of 'enhancement'.

> "…I feel as though these girls are already confident with themselves…and so given the opportunity to lead their peers...which they probably have not had before...enhances it…..where they could probably go down a pathway in their later years of a leadership role in lessons to come..." (Ruby 2: 33-35).

It is worth noting that Ruby refers to 'later years' which indicates that she has in mind some notion of development in key stage 4 from key stage 3. In the same area Dylan claims that Social, Moral, Spiritual and Cultural (SMSC) are key aims of the subject. While he does not go into detail, this appears to be primarily related to social aspects. He also draws on a more 'sporting' discourse with references to 'winning' and 'working as a team':

> "In an ideal world they need to be learning SMSC......life skills......I think they are the most important thing that children can learn......being able to deal with competitive situations ...working as a team...winning and losing graciously…communication skills. I think...are very high up there" (Dylan 1: 4-7).

Dylan's response can be read as an indication that his fore-understandings are located principally in a sporting milieu. However, he was not so sure as to whether he sees this as a matter of 'learning to compete' or 'learning through competition':

> **CC-** So with the competition...in your mind is it about learning to compete or learning through competition?
>
> **Dylan-** Learning...I think learning to compete…is important. Learning to be able to deal with what competition brings. Whether that be...being on the receiving end of a loss or the opposite...being magnanimous in victory and........yeah I think it is very important I

think...to be able to do......I think it is very important. I don't like...I don't like competitions where no one wins...even though I am not a winner myself so to speak. You know...you know I am not all about winning…at all. I am not very competitive. I think that the kids need to learn.....(Dylan 1: 8-15).

On the basis of his reply it is possible that this is not something that Dylan had thought about before the interview. It seems that he endorses the idea that an aim of PE is to learn to compete but at the same time, he is clear that it is not all about the competition. Not that these two aims are impossible to accommodate but it is not clear from this quite how he understands them or if he seeks to draw a difference.

Only Ruby spoke specifically of developing self-esteem, although personal qualities such as confidence were also a feature. In the first interview she says that the aims of the subject, among others are:

"…fair play…improvements in each sport…self-esteem…" (Ruby 1: 8).

It is significant that Ruby draws on a sporting discourse with 'fair play' and then frames her response in terms of improvement before she comes to 'self-esteem.' It should be highlighted that, while there were few direct references to the point of lessons being related to 'sport', it was notable that the participants often drew on sporting discourses. In reflecting on possible barriers to learning, Ruby follows this up with a reference to 'confidence' where she says that a lack of it is a barrier but did not see this as an explicit focus for learning:

"…mmm student confidence and their interest in PE…" (Ruby 1: 141).

Jude also advocates confidence as an aim of the subject:

"It develops traits such as…as confidence…" (Jude 1: 55).

8.2.3 Participants theories of personal and social qualities as aims of PE-Summary

It is evident that all of the participants held theories that one of the aims of the subject was a concern with personal and social development. This appeared in different forms and there is no obvious pattern across the four participants (summary provided in table 8.1). In terms of espoused theories, Dylan was advocating life skills and dealing with competitive situations; Ruby was talking principally in terms of self-esteem, leadership skills and helping introverted students to 'come through'; Darcie focussed on life skills, leadership and lifelong exercise goals and Jude, leadership, character

and helping children to 'come out of their shell'. Implicitly, it can be said that there was a sense of these personal qualities being revealed rather than developed, at times. Also, that implicitly, it felt as if the participants assumed that the children had an essence that could be revealed. It is also clear that their notions of social development were closely tied to the health and fitness agenda in PE.

8.3 - Health and fitness as an aim of PE
8.3.1 Health and fitness as an aim of PE: Introduction
In chapter 4 it was established that since the 1980s the health focus has become a significant feature of the discourse in Physical Education. In the world of PE and sport, Green (2008: 96) proposes that the idea of health as a part of PE has been, "… widely and uncritically accepted." It should also be remembered that health and fitness have been a significant feature of each iteration of the National Curriculum for Physical Education since 1992. In the 2013 version, one of the four aims of the subject are stated as, "lead healthy, active lives" (Dfe 2013: 1). The participants' perspectives can be summarised as a concern with inculcating a life-long habit of physical activity, learning about health and fitness and doing exercise. These perspectives were often presented as being closely linked to social development. It should also be noted that the health and fitness aspect tended to be seen as a separate element. It should be borne in mind that none of the participants mentioned health and fitness as a part of their descriptions of their exemplary lesson. In reflecting on how the health element might be taught, Elbourn and Harris (1997) advocate a number of models which vary from a more integrated design, where health and fitness form a focus in most lessons and then a different model where health and fitness are a separate focus and there are dedicated lessons. It should also be borne in mind that there seems to be evidence that there are clear differences between how health is presented to students, what students learn, and differences between teacher and students' roles in practice (Mong and Standal, 2019). In this research there was no indication of an integrated approach but it is based on such a small sample of classes and so no strong case can be made. It should also be noted at this point, that the participants did not show an awareness of research in the field although it may have been that they did not feel the questions were inviting this. For example, in a prominent study into the influences on leading an active life style concluded that social context was a key factor. In a 38-year longitudinal study carried out in Scandinavia, Engerstrom (2008), concluded that the most significant factors in promoting lifelong physical

activity (PA) was what the child's family and social network did in terms of exercise. That is not to say that promoting life-long physical activity is not a worthwhile aim in PE of course.

8.3.2 Health and fitness as experienced by the participants

Health and fitness as an aim of the subject was strongly espoused by Ruby. One of the key points to be developed here is that in scholarship, 'health' and fitness', although related, are not seen to be the same thing. A classic definition of health is that from the World Health Organisation (WHO) that says, "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." Needless to say, the PE literature is replete with definitions of physical fitness. In sporting terms, it has been described as, "…the successful adaptation to the stressors of one's lifestyle" (Dick, 1998: 184). Fitness is more to do with capability and is more along the lines of, "The capacity to carry out everyday activities without excessive fatigue..." (Davis, Et al., 1986: 29)." Physical fitness has also been defined by its 'distinguishable dimensions' of endurance, strength, speed, coordination, and flexibility (Lammel, Et al. 2010). In some of the discourse employed by the participants in this study, they were sometimes spoken about as if they were inextricably linked:

> "I think that from a very early age one of our jobs is to educate the children...you know…a small part of it…in fitness so they understand what is happening to their bodies when they are exercising and things like that…" (Ruby 1: 4-5).

It was quite rare for the participants to talk about their work in terms of 'educating' as Ruby does here. She is very specific saying that it is about educating the children in fitness although she appears to draw back from this when she says, 'a small part of it'. She refers to 'what is happening to their bodies' but this is a little ambiguous. It might be that we can assume she means, when children exercise, what are the adaptations the body makes. Or it could be that she just means that there is an understanding of the relationship between exercise and the body. It might even be that she means that the children have an awareness and can describe short and long-term effects. It may also be that this is an instance of inauthenticity where this is something, she is aware of, but has not thought about it herself in any depth. In the final interview, when asked about the ideal programme for key stage 4 children, Ruby says,

"Just get them doing some kind of health and fitness…we do this anyway..." (Ruby 3: 195).

This response is noteworthy because Ruby couples 'health and fitness' and also because she talks about the children 'doing' health and fitness. At this moment, 'doing' can be read as a synonym for 'learning about' or 'learning to do'. What is not clear from this, is how she sees the process. For example, does she assume that by being active, the children are learning about health and fitness? If so, what does she feel the children are learning? Does she necessarily see that this is about learning? She is talking in terms of 'doing' which might be a synonym for learning but can also be interpreted to be another instance of 'purposeful occupation'. It can be concluded that Ruby is espousing a strong advocacy for the idea of children having the opportunity to engage with fitness. Similarly, Jude says,

> "I think they should be learning about fitness…the importance of staying fit and healthy…and also being fit and healthy for life…..not just…I am doing PE now so this is where I am fit and healthy…it is actually having those...that idea of being fit and healthy for ever...you know...eating well" (Jude 1: 11-14).

This is an example of a more integrated response. Jude is saying they 'should' be learning about fitness. He then lets that run into the notion of PE as a way into life-long activity. This may be interpreted as a form of inauthentic response as he is talking the dominant discourse and does not seem to be inclined to question it. What should be noted is that Jude mentions 'health' several times here, but in the second and third interviews, this does not feature at all. Darcie also spoke in terms of the life-long aspects when she was asked about the aims of the subject:

> "…life-long goals for continuing with physical activity…" (Darcie 1: 7).

The idea of 'continuing' is a significant term. This assumes that there is a follow-on. To what extent is there an assumption that exercise habits are influenced by what happened in PE lessons?

When asked what an ideal position in terms of fitness might be, the tendency was to focus on resources rather than what the children might be learning. Darcie had said,

> "I would have a private fitness suite...a massive fitness suite would be great that we don't have to share with the public...personal training programmes...personal trainers…clubbercise" (Darcie 1: 243-244).

Here, Darcie is talking about having a resource which is not a community one. Presumably this is to make timetabling easier. She is also talking in terms of having more staff in the form of personal trainers and a greater range of activities. Ruby espouses a similar perspective:

> "Just get them doing some kind of health and fitness…we do this anyway Chris…but it would be more fitness programmes not too…stressful...and chilled yoga...it is like continuously so they could have a programme and a chart and they could see the difference with their bodies…and stuff like that instead of throwing them into the basketball where they feel a bit intimidated by the others and they only have a small space just make them see…fitness and health in a bigger light instead of just three weeks doing health and fitness..." (Ruby 3: 195-200).

Ruby talks here in terms of 'doing' health and fitness rather than learning about it. Although at the end of this response, she talks about seeing fitness and health in a 'bigger light'. By this, she seems to mean that it is not just about the dedicated lesson but something that should underpin the wider PE curriculum. This is her reference to a 'small space' which can be read as a metaphor for what she sees as the small amount of time in dedicated lessons. Again, like Darcie, she talks in terms of a wider range of activities. She mentions monitoring their bodies with a chart and at this stage, does not express any reservations about such an activity. In research in this area Webb Et al. (2008) found that many children assumed that PE teachers thought being thin, correlated with being fit and healthy. Garrett (2004) in a study with high school girls, concluded that many girls spend a lot of time monitoring themselves and are highly involved in discourses about the 'ideal' body which can bring difficulties in relation to identity. It is worth noting that Ruby seems to assume that being 'thrown' into basketball would be intimidating. When she says 'thrown' this can be interpreted as the children having a lack of agency and so at an implicit level, she might be thinking that activities based in health and fitness are less prescriptive and mofre easily accessible..

In recent times it has been widely recognised that Western society is experiencing a form of obesity crisis and this has implications for health and sustainability (Dobbs and Manyika, 2015). It should be noted that there are opposing views on this. For example, Kirk (2006) argues that this crisis has been manufactured through social

production while Evans (2003) argues many aspects of this have been exaggerated and calls for teachers to take a critical view. 'Obesity crisis' was not a term the participants used but it can be seen to be part of their horizon of understanding as issues of obesity were clearly considered. In reflecting on the aims of the subject Ruby says,

> "…especially the overweight girls so at the moment we have got leadership courses we have got…a fitness club starting for disengaged girls…we have got…Sky living for sport……so it is looking at it in a different way...to let these young ladies see that it is not all about games sport …basketball…football whatever…you can enjoy health and fitness in other ways" (Ruby 1: 159-161).

Ruby begins by intimating that 'overweight' girls have an 'alternative provision' and it may be that at an implicit level she is defining these girls, in part, by their bodies. It must also be noted that she is talking in terms of the children 'enjoying' health and fitness rather than learning about it, although this does not preclude learning. In effect she is expressing PE in terms of health and fitness. She says that you can 'enjoy' health and fitness in other ways. Like Darcie, the idea of using alternative activities is at the front of her consciousness. She is asked what would be a more ideal programme she says,

> "...introduce them to new things out of the box of the curriculum lots don't like games so you bring Zumba in you bring yoga in...you bring Pilates in…saying you can do this out of school and things like that...huge problem…really is…drives me insane…that is why I don't think I can keep going" (Ruby 3: 166-168).

A factor here is that Ruby sees that the children need to be doing activities they can do outside school and she talks in terms of new activities. Implicitly, she seems to be saying that the answer lies not in adapting pedagogy but in diversification of lesson content. This resonates with Green's research into PE teachers' ideologies where he concluded that, "For many teachers, choice or 'options' was viewed as an essential 'tool of the trade'' (Green, 2003: 76). Ruby also spoke about the importance of motivation and refers to this as a matter of 'lifting' the children:

> "I need to try and do something that will…lift them a different way where they don't have to get changed so I introduced sky living for sport…" (Ruby 3: 175-176).

One of the clear themes in phenomenology is that it is about ascertaining what matters to people (Smith, Et al., 2009) so the uneven attention given to health can be seen, not that the participants did not feel it important but that there were other more pressing matters. Across all three interviews, Dylan only mentions health or fitness when he is asked to describe a child who he would see as a strong student in PE:

> "His knowledge of sport is excellent...the fitness is there...he is nowhere near as good technically as the other child..." (Dylan 3: 339-340).

At this moment, Dylan is saying that the child's fitness is 'there' so it can be assumed that in his mind the excellent student in PE has high levels of physical fitness. This perspective seems to echo that idea found by Webb and Quennerstedt (2010) of children thinking that PE teachers saw being thin as a sign of health and fitness. It might be that to some extent, Dylan sees that the 'good' student in PE is physically fit. This also represents an example of nuance as in many other places, he made a point of valuing all the children for what they were.

In the first interview, Jude is asked about what should be assessed in PE:

> "...on their knowledge, on their...theoretical concepts, on their coaching and their leadership, on their decision making, on their character, on their fitness and their understanding of health and lifestyle so I think we want to be assessing them on those things just as much as on how good a footballer..." (Jude 1: 43-46).

In this section Jude is saying that assessment should be 'on their fitness' and also their understanding of 'health and life style'. He is saying that this is as important as physical competence in games.

Towards the end of the first interview, Jude is reflecting on the extent to which enjoyment should be an aim of PE. He says that for him, it is a by-product. As part of this he shifts into more of a self-evaluation mode:

> "Are we giving them some kind of life skills and character skills? Are we improving their fitness?" (Jude 1: 326).

This is a significant section for two reasons. First, Jude is talking about learning as transmission when he says, 'are we *giving* them some kind of life skills'. Second, at this point he is expressing the position that an aim of the subject is to improve the children's fitness rather than the children learn how to do this. This is in contrast to the response considered before and can be interpreted as an example of nuance.

Jude is asked about what he looks for in terms of making assessments and says that one of the aspects is fitness:

> "…so we look at...the students fitness…" (Jude 3: 22).

Here, Jude is saying that they 'look' at fitness although it is not clear whether he means they look to see 'how fit' the children are or how much they know about fitness. Later in the same interview Jude is asked about what he considers when he is looking for learning:

> "…and another factor is fitness levels ok…do they take their fitness seriously...do they have good fitness…" (Jude 3: 272-273).

There are three interpretations that can be made from this. First, Jude is saying that when he looks for learning he looks to see if the children take their fitness 'seriously. This can be interpreted as him viewing that to be fit is a virtue and is related to the idea of PE and the 'ideal body'. Second, he saying that he is looking at fitness levels but not with any intension to see if they are improving. It may be that, for Jude, this is assumed. Third, that the general tone of this section appears to be more to do with revealing or identifying a state of competence rather than improving it.

8.3.3 Health and fitness as aims of PE: Summary

In summarising the participants' perspectives on health and fitness for the most part, there seemed to be a relatively uncritical acceptance of the 'popular' discourse. There were few signs of them seeking to question the dominant discourses. To an extent, PE was often seen as a synonym for health and fitness although the activities were regularly described more in terms of 'doing' than 'learning about' health and fitness. There were no occasions where they sought to draw a distinction between health and fitness although none of them were asked this specifically. The issue of life-long engagement in PA was strongly espoused by Darcie and Jude although not questioned. It may be that it is possible to say that in terms of health and fitness as an aim of PE, that the participants tended to be inauthentic in that they were being part of Heidegger's *Das Man* or being a part of the 'they' the social community. There seems to be a lack of clarity about whether the purpose, for the teacher, is to develop fitness or to make a judgement about it.

8.4 - Knowledge, skill and progress as aims of PE

8.4.1 Knowledge, skill and progress as aims of PE- Introduction.

In this section 'knowledge' 'skill' and 'progress' have been placed together because they were often expressed in conjunction with each other. As might be expected, there was an expectation that the project of learning in PE was to do with knowledge, although this was not always described in an incremental manner. In some cases, knowledge was expressed in terms of being an entity in its own right and not framed in terms of knowledge *of* something. It could be argued that there was an element of reification at work. That is to say that the way the participants spoke about knowledge was as if it had concrete value in its own right. Similarly, it was evident that progress was also often conceptualised as an aim of the project of learning in PE. Like knowledge, there was a sense that 'progress' was subject to reification and was less about progress in some respect but that it was an entity and had value in its own right. It has long been the case that the acquisition of skills is central to the discourse in PE. Indeed, Thorpe and Bunker's (1981) landmark thinking in teaching games, can be seen as an attempt to shift the focus in games teaching from one of learning skills in isolation to focussing on understanding the demands of the game and then learning the skills that might enhance performance in the game. In thinking about the place of 'skills' in PE, Kirk and Gorely (2000) argues that skills are essential to the idea of PE. It should be noted that Kirk (2010) also claims that 'skill' can be seen as an amalgam of technique and cognition in context. This is the idea that it is not just about being skilful but in recognising the right moment to execute that skill. In terms of learning theories, one of the themes that emerges in this section is that learning is assumed to be a process of transmission. This is a theme that is developed in chapter 10. What can also be said is that in some cases, 'skills' were interpreted by the participants in terms of social skills such as leadership which are the kinds of aspects that Laker (2000: 2003) has been advocating.

8.4.2 Skills as an aim of PE

 The idea of 'skill' is central to the discourse of PE (Kirk, 2010) although Laker (2000) claims that the focus on skills has been to the detriment of other more personal and social learning. Dylan talked about 'life skills' as a priority:

> "Ok what should they be learning in PE? Mmm.....In an ideal world they need to be learning SMSC......life skills......I think they are the most important thing that children can learn" (Dylan 1: 4-5).

When asked to elaborate on how he understood life skills he cited examples such as, communication, listening and accepting defeat graciously. In the second interview where he is asked to describe an exemplary lesson, he described a hurdles lesson and spoke much more in terms of skill acquisition. At one point he is asked if he feels that social skills were being learned:

> "Yeah socially……they were displaying good social skills…which is good for them...because they lack it..." (Dylan 2: 130-131).

He is a little hesitant and then describes the children 'displaying' social skills and at this moment, he does not talk in terms of the children developing social skills which can be interpreted as him seeing the situation more as one of competence revealed. This can also be interpreted as an instance of nuance because if the development of life skills is a priority for him, then it might be expected to be a prominent feature of his description of the hurdles lesson. It should also be noted that in describing this as a matter of 'displaying social skills', implicitly, he is referring to competence revealed rather than competence developed. However, this is not the case, as he talks more in terms of technical development. In the third phase he returns to the aim of the subject:

> "…for me the principle aim of PE is to get kids active…enjoying themselves…getting away from desks…teaching them life skills" (Dylan 3: 6-7).

It can be said that for the most part, Dylan's espoused theories was that he viewed 'skills' is a social manner although it should be noted that he expresses the success of the hurdles lesson in terms of skill acquisition rather than social skills. In summing up that lesson he says,

> "It was great...the results were...none of them will have hurdled before, I can guarantee that and seeing them really concentrate on getting that lead leg down onto the ground as quickly as possible...it's good to see" (Dylan 2: 23-25).

It might be significant that he talks about the lesson in terms of 'results' although in this context 'result' appears to be a synonym for outcome. At an implicit level perhaps, he sees things as being finished. His observation about the skill acquisition is described mainly in terms of what was happening with the leading leg. It is unclear whether there were other things that he chooses not to mention or that this is what he

noticed the most. Jude's perspectives on skills are similar to Dylan's. He had a focus on life skills and spoke about the importance of coaching skills and leadership:

> "It tends to be...you're using a lot of skills in coaching and leadership...uhm...so...and I think that they are valuable life skills as well not only..." (Jude 1: 30-31).

In his description of the year 7 badminton lesson, Jude did focus on the possibilities for developing life skills, although this was done more in the manner of revealing competence than developing it:

> "...they might not be the best player on the pitch...in a particular…or on the court in a particular game…but their leadership skills might be...by far the best they might understand the tactics and they might understand/ they might have really good communication skills" (Jude 2: 207-210).

This is a significant section as there is much to be interpreted. First, he talks about some children not 'being the best' which can be interpreted at an implicit level as a norm referenced way to consider the students. This notion is related to how teachers 'construct' their students and is developed in chapter 9. Second, it can be interpreted that his assessment 'radar' is set to look for, or acknowledge, competence not just in badminton but in leadership skills and communication skills. This can be seen as a concern with revealing rather than developing competence. Third, it is also worth noting that he talks about 'understanding' tactics and so is acknowledging the possibility of developing propositional knowledge over something that might be seen as belonging more to a procedural knowledge domain. It seems that Jude sees skills as related to context as in his description of the badminton lesson, he tended to privilege tactics:

> "So it does allow them to understand the game...and bring tactics into the game...like for example doubles tactics and where you might stand...and having people front and back or left and tight...without...needing the actual…umm...technique or...pure skills to be able to do that ...so it is a nice way for them…and then as they...the lessons progress...over the next few weeks …and they build up those skills…then they already have that bank of tactics and understanding and ideas...to draw on..." (Jude 2: 282-286).

Here Jude talks about 'doubles tactics' as a skill and also draws on incremental language when he speaks about 'building' on existing skills. The metaphor of a 'bank' for memory is also instructive. Suggesting that he sees the memory as a container where knowledge is stored.

In the final interview, again he talks about the point of PE being a concern with life skills but also talks about skills in a slightly different manner:

> "…some games…are really conducive to being broken down into individual skills…basketball is a good example of that…you can break basketball down quite nicely into dribbling...into the different passing shots…into different…different shots that you can make so things like the lay-up or the set shot…you see you can…basketball is a good game to break up into individual skills…..and it is quite conducive to learning those skills in isolation...and then building...building that up into smaller game situations and into full game situations…whereas personally I find rugby difficult to do that...because rugby you just need/ I find it better to teach in a game situation …umm because when...I find when they learn rugby skills in isolation…it is so different…to those skills in a game…that they are almost entirely separate…"(Jude 3: 325-333).

In this, he is describing helping children learn skills in a more decontextualised manner than he did in the second interview. At this point, he is talking in terms of some activities being appropriate to be broken up into individual skills and this can be taken as an example of nuance.

Ruby tended to describe most of what could be learned in PE as a skill. She also spoke a good deal about the point of lessons being to gain leadership skills:

> "…exploring new skill...imagination…creativity…..possibly leadership skills if it is someone who is strong in that sport where they can help others and help the less able…evaluating peers and own skills…" (Ruby 1: 68-70).

She is asked what might have come next if she had been able to do another lesson of high jump with the class:

> "Well next they have already got the technique and…the beginnings of the skill for the long jump skill so would have to give them more……….give them more advanced their skills to improve their long jump measurement" (Ruby 2: 173-175).

In terms of making interpretations about personal theories of learning, this is instructive. First, she says that they had already 'got' the technique. This suggests that she sees learning in this aspect can be finished. Second, she talks in very general terms about improving skills and frames this as being able to 'give them more advanced skills' which can be interpreted as an example of an implicit theory of learning as transmission. The third aspect is that she couches the purpose in terms of personal improvement. In the final interview, Ruby is asked what she looks for in terms of the children understanding what is being taught.

> "Yes You do this in many sports…give them a skill…let them practice...you observe as a teacher...so you are giving the students an opportunity to go away and be…peer assessment... peer coaching each other...looking at the positives and negatives of the skill that has just been delivered by the teacher…" (Ruby 3: 46-49).

First, Ruby talks in terms of learning as transmission when she says 'give them a skill'. Second, she is saying that the students 'go away' and practice which refers to the children having time to work things out. Implicitly, this can be read as employing a heuristic teaching strategy. Third, there is this idea of the teacher 'delivering', which suggests that she sees learning as a transmission and that there might be causality between teaching and learning. Finally, she talks in terms of the children thinking critically about what they are seeking to master.

By contrast, Darcie's references to 'skill' were sparing. When she did draw on this idea she spoke in terms of social aspects. In the first round of field work she is asked to consider what happens at the start of Year 7 in PE:

> "…in Year 7 so it is a process that they are used to so we will do…a week or two of skills focussing on all the different aspects of what we are doing and then….when I am confident enough that they have enough background information and knowledge...that then I can let them loose as such…" (Darcie 1: 163-166).

What is noticeable here, is that she is framing her response very much in terms of a 'skills based' approach. This is the idea that the children learn the skills and then apply them in a game. Tinning (2010) offers a timely reminder that any PE teacher will know that the 'skills then game' approach seems to be a sure way to frustrate many children who cannot necessarily see the point of the skill but can see the problems presented by playing the game. It is also worth considering her term of 'letting them loose'. Does this mean that when they are learning skills they are not 'loose' but tethered in some way? This might be viewed as a good opportunity to interpret implicit theories. Does she see the skill-learning as tightly coupled and under control? When the children are playing the game, then she feels that things are more open.

In terms of skills as the point of PE there are a number of themes that run through. First, that there are some nuances in the participants' theories. That is, in many cases they privilege social skills in their espoused perspectives, that they tend to see skills as something that is transmitted to the children from the teacher and they did not tend to be concerned about skill-learning and context.

8.4.3 Knowledge and progress

In this section, knowledge and progress will be considered alongside each other as that seemed to be a predominant mode of expression by the candidates. Overall, there were not so many explicit references to 'knowledge'. Where it was mentioned, it was often in a general way. Ruby, when asked about the aims of PE, listed 'knowledge of different sports' (Ruby 1: 6).

In the second interview, Darcie is asked to reflect on how her perspectives on teaching have changed in her career:

> "…it was definitely it was probably…more about what I knew and how I could try and impart that knowledge onto the kids and kind of…….students not really knowing what to do other than what I asked of them and kind of...go through the process…..whereas I definitely think there is more to be gained from…with them going through the process themselves...with a little bit of structure and a little bit of direction from me…they gain a lot more " (Darcie 2: 383-387).

Darcie says that when she started to teach, she was trying to 'impart knowledge'. Again, this can be interpreted as transmission idea where she sees knowledge as something that the teacher can 'pass' to the student. She then described her evolution as a teacher, as one where she now sees that going through a process of learning *is* learning. It is interesting to observe that she then talks about how she feels she has adapted her role. Ruby, in reflecting on lesson intentions, says,

> "…so your lesson objective...knowledge...give the children the skill you want them to learn...by the end of the lesson they have learnt that skill...ready to move on the next lesson" (Ruby 3: 72-74).

There are some reservations about the efficacy of lesson objectives in the literature. Swann (1999 b) argues that the objectives model fails to address the open-ended nature of human endeavour and that teachers should context the orthodoxy of such an approach. It is significant that Ruby sees that the lesson objective 'gives' the children the skill to be learned. She does not mention where the lesson objective has come from. This also seems to assume that the point of the lesson will be about acquiring skill. It is also noticeable that Ruby sees learning as something that can be finished, a perspective that emerged in the previous section. In the same interview, Ruby couches the purpose of the lesson in terms of progress:

> "…good knowledge of the subject…..progress from the lesson objective you are teaching...yeah progression from what you are teaching is obviously huge isn't it...because…how are they learning...if they are not going to be progressing...so your lesson objective...knowledge…give the children the skill you want them to learn…by the end of the lesson they have learnt that skill ...ready to move on the next lesson" (Ruby 3: 70-74).

Progress 'from' the lesson objective is a significant expression. This can be interpreted as her feeling that the lesson objective is privileged and by implication, less that the children have made some progress in their mastery of some aspect of the subject content. The final section is also helpful. She talks in terms of the children having 'learnt that skill' which suggests that she sees that learning can be finished and also that she is assuming that the point of the learning would be a skill. This is noticeable in the third interview where Ruby refers to learning as a skill and also leadership:

> "…that is the whole point of being as PE teacher...but when you have a lesson as a whole... then you have lots going on...you have got communications skills...you have got leadership skills…you have got progress…" (Ruby 3: 95-97).

The sentence construction where she says, 'you have got' is worth reflecting on. It might be a sign that she feels she lacks ownership over classroom events. Dylan is asked to reflect on the place of asking good questions. Building on what he says, he is asked if he sees teachers' questions as a form of test:

> "Yes test is a good term...I am testing their knowledge and almost myself to see if I have delivered what I needed to deliver...we are back to this……" (Dylan 3: 385-386).

From this, it can be interpreted that he considers the aim of the lesson as one of developing knowledge but that this is a matter of 'delivery'. Ostensibly, this can be read as Dylan seeing that knowledge is a commodity that is passed between the teacher and the student which can be read as a transmission process of learning. He then talks about teaching as a form of 'delivery' which again, is a term in the modern discourse. It may also be an example of inauthenticity. He has tended to operate in the natural attitude and has not had any particular reason to reflect on these matters. It is also possible that such reflection does not form a part of the culture because they are dealing with other 'pressing tasks'.

In considering the aims of the subject, Jude has a slightly different perspective:

> "…they should be learning about things like…sportsmanship…fair play…I think they should be learning about fitness…the importance of staying fit and healthy…and also being fit and healthy for life…..not just…I am doing PE now so this is where I am fit and healthy…it is actually having those...that idea of being fit and healthy for ever...you know…eating well...looking after your body...taking care of any sports injuries that you might have..." (Jude 1: 11-15).

Jude is expressing that the point of the project is to learn positive social behaviours like fair play. In this, he makes a point of talking in terms of learning 'about' fitness. He is also promoting a kind of life-long behavioural perspective. He expands on this to refer to sports injuries and he is very aware that there might be short-term and longer-term possibilities.

The participants also spoke about the aims of what they were doing in relation to progress. Dylan is asked about what gives him joy:

> "…seeing them progress both socially and technically...we have just done high jump and a couple of them just looked like salmons that had been shot mid leap but some of them nailed it ...and it is great…do you know what I mean?" (Dylan 3: 73-75).

Dylan is saying that what gives him joy is seeing progress and he makes it clear that he values progress in social and technical aspects. Later on, he talks in terms of how progress might be noted:

> "And that is a good thing that they have gone from here to here and they know they have progressed…I don't think they need a number" (Dylan 3: 295-296).

He is saying that that the pupil has shifted in some way when he says, 'here to here'. At this moment, he says that a grade or level is not required.

> "That is all that is drilled into you...progress progress progress in CPD meetings and teaching meetings and everything" (Ruby 3: 120-121).

Ruby is expressing 'progress' as a performative element to her accountability. She is asked if there are any circumstances where she feels she might push back against this. She says,

> "I don't know any different...because that is drilled into you like I said…" (Ruby 3: 129).

This indicates that she feels a lack of agency as a professional and also a lack of ownership over aspects of her professional life. There is also the point that she

appears to see her own professional learning as an invasive process of 'drilling' where her learning is almost a matter of her being invaded against her will. Darcie spoke in terms of one of the aims of the lesson to make her own processes transparent to the children.

> "Yes I always explain why we are doing something…so…..I have said to groups in the past …you know…we do this because…I want to see where you are at…it is good for me to gauge your progress…and also you can see your progress…" (Darcie 2: 334-336).

This is a perspective that does not emerge from the other interviews, although it should be said that the question was not asked. It can be claimed that there are two connected theories here. First, that she talks in terms of explaining why she does what she does and also as a sub section of this, she lets them know that what they are asked to do will reveal their state of competence. Darcie does not expand on this but we might assume she uses that knowledge to inform her teaching:

> "…and that does not really get you anywhere or make the student feel particularly good or make them even realise that they have made progress...when they may have made lots of progress" (Jude 3: 71-73).

In the final interview with Jude, he is asked about how he views the difference between amounts of progress and the ways in which the children are progressing.

> **CC-** Ok that is great thanks. One last thing on that. Would you say that the issue is how much progress they are making or in what ways they are making progress?
>
> **JN**- I'd say it is both. How much progress is obviously really important...because it is not going to be acceptable to…have taught children 5 years and they have made barely any progress. However, it is just as important to make sure that they have made progress in the right areas because it is one thing making loads of progress in one area...but if…if…that is not a broad spectrum of different sort of things they have improved on you then you have not really made as much of a difference as you could have done (Jude 3: 99-106).

Jude is saying that the amount of progress is important which presumably means that he feels that learning can be measured. Swan (2012) argues that the best we can do is to make a judgement about learning. Then he says that there are 'right' areas for learning. It is not clear what a 'right' area is. In the final section he then talks about the relationship between teaching and learning as a causal one. This is an important aspect and will be considered in more detail in chapter 10. When asked about the

relationship between the assessment structures and what is happening to the children in the class Darcie says,

> "I think it is more important about what is going on at the time...and what they are gaining about the skills and knowledge from that activity…is more important than the actual number" (Darcie 1: 299-300).

There are two important interpretations to be made about her personal theories, here. First, that she views *the immediate* is important. Langer (1997) has argued that too much time in education is spent assuming there is some ideal future. Second, she talks in terms of the children gaining knowledge from the activity rather than engaging with the activity. This can be assumed to be a slip of the tongue. Third, that what they get out of the 'immediate' is more important to her than the assessment level. The subject of assessment is prominent in the participants consciousness this is not a common perspective and can be interpreted as a moment of authenticity:

> "I think that assessment is absolutely vital because...you need to have…well first of all you need to have a starting point…of where is that student...and then you have to be able to take that starting point and use it as a means of assessing what progress they have made with you..." (Jude 3: 6-8).

Assessment as a means to make interpretations about personal theories of learning will be developed in chapter 10. What this extract suggests is that Jude sees assessment in a rational way. He seems to be assuming he can know where the child started and then look at how much progress they have made, a perspective that can be interpreted to be rational and typical of a technical rationalist perspective. Jude, in reflecting on what should be assessed, says,

> "…so...like I say...on their knowledge, on their...theoretical concepts, on their coaching and their leadership, on their decision making, on their character, on their fitness and their understanding of health and lifestyle…" (Jude1:43-45).

First, it is assumed that what 'should be assessed' is seen as a synonym for the aims of the subject. He cites a range of aspects such as character and fitness which might be deemed to be personal and beyond the purview of school assessment.

In considering knowledge and progress it can be said that progress was often described in terms of something that was a focus in its own right but not in terms of 'progress' in some respect. The prime purpose of this research is to interpret rather than explain but clearly in a performative policy context this is no surprise. Similarly,

the term 'knowledge' was used but generally, as if it was an entity in itself rather than knowledge about something.

8.5 - How the participants understood the aims of the subject: Conclusions

In this chapter it has been argued that attending to how the participants understood the aims of teaching PE is an appropriate way to make interpretations about their theories of learning. This is because in research that employs a phenomenological approach, the assumption is that we live in the world in an embodied manner and our consciousness is always directed towards something in the world. It follows then, that to understand the participating teachers' theories of learning, interpreting how they saw the purpose of learning in PE was a valid place to make interpretations.

The first point is that there appeared to be some question about the extent to which the participants saw the project of teaching PE as one of developing competence or revealing it. Consciousness is appropriated by language and it is significant that many responses were not couched in terms of incremental gain but more as a form of 'purposeful occupation'. Ruby's talk of 'doing' health and fitness (3:228) is an example of this.

In thinking about what can be interpreted about the participants' theories of learning, it can be said that there is an espoused level and also an intrinsic level and that they exist on a continuum. There should be no question of a binary.

It should be noted that learning skills was seen as an important aim of the subject and this tended to be expressed in a de-contextualised manner. So, the participants tended to assume that being skilful or learning to be skilful was a key focus and there was little acknowledgement of context. Seeing the moment to apply the skill as an element of the skill was at the periphery of their consciousness.

It is clear that the participants did not hold a single or agreed purpose for learning in PE. Of course, education itself can be seen to be deeply contested and so this should come as no surprise. What is worth reporting is that in phenomenological terms, it was not clear the extent to which the participants were being 'authentic'. That is to say, the degree to which they were not taking things for granted and possibly shutting down other ways of being. However, it might be that they did not feel able to explore other possibilities in a research setting. There were a few moments where it felt as if they were considering perspectives that they might not normally consider. For

example, in the second round of field work, Dylan is asked how assessment helps children learn:

> "How does it help their learning?……….That is a good question……I think that the levels…for the majority of the children at this school…levels work to encourage them to progress" (Dylan 2: 179-180).

In this, it is possible that Dylan is moving past 'being part of the crowd' (*Das man*) and is reflecting on an aspect of his practice. This suggests, in phenomenological terms, that in this moment he is shifting to being more authentic.

In this chapter some important four important themes related to the participants' theories of learning have emerged and these will be developed in the remaining chapters in this section. First that the theories of learning that the participants held were considerably nuanced. Second, that there was an explicit and an implicit dimension to their theories of learning. Third, that there was a tendency for them to see that teaching and learning existing in a causal relationship. Finally, that in some instances, 'progress' was spoken about as if it had become the aim of the project rather than progress *in* something.

Summary of findings regarding how the participants understood the aims of PE

		Developing personal and social qualities	Health and fitness	Knowledge, skill and progress
Dylan	Espoused	Life skills; competitive situations; team work; communication; sporting; winning and losing	Only mentions this in terms of the 'ideal' child in PE	life skills, accepting defeat graciously; skill seen in a social sense
	Implicit	Hierarchy PE as sport Learning to compete or learning through competition;		social skills are revealed?; life skills not evident in lesson description;
Ruby	espoused	Thinking for themselves creativity; leadership skills; more able act as leaders; introverted students 'come through; self-esteem; fair play; sense of development; confidence as an aim;	'doing' health and fitness Understand what is happening to their bodies when they exercise; strong advocacy; motivation; getting changed is a barrier;	New skills; exploration; learning can be finished; skills can be 'given'; 'go away' to practice; children automatically peer assess; teaching as delivery; critical thinking by the children important; general references to knowledge;
	Implicit	Teaching and learning causal; competence is revealed; defining feature of children is their personality; leadership is peer teaching?	Doing fitness or learning about it?; ambiguous?; instances of inauthenticity?; girls defined by their bodies?; changed to content is a solution;	Assumptions of transfer; discursive consciousness; learning can be 'finished'; expresses lack of agency;
Darcie	Espoused	Working together; team work; social interaction; away from desks; try new things; life skills; Lifelong goals; being active; team work; leadership; working independently; qualities are demonstrated; getting them active	Life-long goals; active life style continued beyond PE; Ideal future would be more breadth of opportunities; more specialist staff/ coaches;	Hierarchy; skills first; 'letting them loose'; skills first; assessment is more than measurement; learning as meaning making; 'gauging' progress;
	Implicit	Qualities are revealed in PE; working as synonym for learning;	Competence revealed; what competence is assumed?; 'work' as a synonym for learning; 'purposeful activity' rather than learning; 'doing fitness' rather then leaning about it or improving it	Taking a more experiential approach; children need to go through a process.
Jude	Espoused	Leadership; coaching; developing character; motivation; mindset; core character traits; reveal 'true character'; coming out of their shell; assessment of wide range of aspects; confidence as an aim;	Activity for life long benefits and also for PE; Diet; It is about improving fitness; health and life style; being fit	Understanding of tactics; life skills; communication skills; can be learnt in a decontextualized manner; can be broken up;
	Implicit	Talks in terms of 'looking at' Children are 'judged' Developing traits; core character traits; summative assessment is privileged; performative; children have an essence; low self-awareness;	Less about learning about fitness; learning as transmission; fitness is a virtue- a preferred state?	Sees children in norm referenced manner; context not necessarily a factor;

Table 8.1 Summary of findings presented in chapter 8

Chapter 9 - Interpreting theories of learning from the way that participants 'construct' their students

9.1- Introduction

In chapter 7 it was argued that the participants' theories of learning could be understood as being espoused, implicit and nuanced. In addition, it has been acknowledged that any theory of learning must address the question of what is to be learned and also who is doing the learning (Engestrom, 2009; Marton and Tsui, 2004). In chapter 8 the focus was on how the aims of PE appeared in the participants' consciousness, which represents 'what' was to be learned. In this chapter the focus shifts to how the children in the participants' classes appeared in the consciousness of the participants. That is to say how were the people who were doing the learning understood by the participants. The argument being made is that attending to the way the participating teachers 'constructed' their students was a helpful way to make interpretations about their theories of learning. The teachers' relationship with their students should be seen as a case of intersubjectivity which Heidegger (1962) argued was a primordial quality of the human world (Dahlberg, Et al. 2008). This is a perspective that concerned Husserl who came to think of intersubjectivity as a key element of phenomenology (Zahavi, 2019). In this chapter the participants theories of learning are interpreted by considering how they 'construct' their students and how they spoke about their relationship with their students. The chapter is organised under the themes of: the good student; motivation; entity and incremental perspectives and classes seen as homogenous groups.

In making the interpretations about the participants' theories of learning, it is argued that there are three key ideas that underpin those interpretations. First, the case for acknowledging how the participants 'construct' their students in interpreting their theories of learning in a phenomenological methodology, is valid because of the inherent intersubjective nature of the methodology. Second, that in interpreting the participants' responses, it is possible to make an interpretation about the explicit meanings but also the implicit meanings in their verbal reports. Third, that the participants' theories of learning exhibited some nuance. It will be argued that, this

is to be expected, so the interest lies in the ways in which these nuances present themselves.

It has been noted (Chapter 2) that a weakness of many of the big disciplinary learning theories is that the learner is often absent. What is claimed here, is that the participants, in different ways, were very mindful of the learners. Heidegger was keen to emphasis the inherently social nature of *Dasein* (Langdridge, 2007). He felt that 'Being-in-the-world' can equally be seen as 'Being-in-the-world-with-others' as all experience is in relation to others. Indeed, such intersubjectivity is argued to be a primordial quality of the human world (Dahlberg Et al. 2008). Heidegger (1962) also pointed out that solitude obtains its meaning from the fact that the human world is an intersubjective world and so we are alone because someone else is *not* there. In this case, the project of learning in school is about particular children, as known to the participants, and without those children there is no requirement for theories of learning in terms of their teacher identities.

It should also be noted that while all four participants spoke about their students, the way that this was done, varied a good deal. For example, Dylan often spoke in terms of a personal relationship based on empathy. Here, he is asked to further comment on knowing the children:

> "Knowing their backgrounds...knowing their ability levels...knowing what...what their targets are where they need to be...if it is a classroom subject...mmm...yeah just knowing how to get the best out of them...if you know where they are coming from...and what floats their boat…then you can help to float it I guess" (Dylan 1: 251-254).

This was in contrast to Darcie, who tended to speak more in terms of the process being a technical one:

> "……it can take longer for different students and that is why we have gifted and talented students and why we have got lower ability students and it is trying to find a balance then..." (Darcie 3: 138-139).

In this extract, Darcie talks in terms of the 'different' students and this is defined by ability and the solution is described in principally technical terms.

9.2 The construction of the 'good' student in PE

9.2.1 Introduction

This chapter is based on the notion that how the participants 'construct' those who are doing the learning in their lessons, is a relevant way to make interpretations about their theories of learning. Therefore, a helpful line of analysis is to consider how the participants 'construct' the *good* student in a PE lesson. In order to make interpretations of how the participants might understand the 'good' student their responses to direct questions are considered as well as interpreting more indirect references to such students. One of the points to note is that the 'good' student is rarely described in terms of their ability to learn but in terms of their technical abilities and characteristics. It was also the case that the most valued characteristics of the 'good' student were independence and a range of personal qualities such as character, leadership and technical competence.

9.2.2 Interpretations of the 'good' student

The 'good' student was often described as being 'independent' which can also be read as a matter of 'low maintenance':

> "...well she normally comes in and just gets on with it...fantastic student" (Darcie 3: 34-35).

While it is tempting to say that the 'just getting on with it' defines the student, this may just be one element of the qualities that Darcie values. It should not be assumed that the independence is 'the' defining characteristic of this student in Darcie's mind. On similar lines, Dylan, when asked to reflect on what he looks for in terms of learning, says that one of the key things for him is that the children learn to learn 'by themselves':

> "…they learn to...I can't put it into words…they learn to……they learn to work on their own...they learn to learn by themselves…over time...I can think of a few classes I've got now...you would never have...given them the chance to work for an extended period of time in groups on their own" (Dylan 1: 69-72).

One way to interpret this is Dylan is saying that part of what it is to be a good student is that they need less help from the teacher. Or perhaps the issue is 'what' help the teacher might be giving. This can be interpreted in different ways. It might be that the 'independence' is doing what the teacher wanted but without being too demanding. It might mean that there are chances for the children to set the agenda for themselves and then follow that path. Either way, it seems that Dylan feels that the teacher is not

required, although this could be recast as the role of the teacher being redefined. It should not be discounted that there might be times that the child would like help but does not feel able to ask:

> "...and some of the stuff they come up with is fantastic...so this group in particular, are very good independent learners as such…" (Darcie 2: 90-91).

For Darcie, the idea of children being independent, is a prominent feature of her responses. Here she is saying that the 'good' children are able to work independently although, as with Jude and Dylan, this is not qualified. When considering Ruby's perspectives on this it is worth noting that the only time she draws on the idea of 'independence' is when she is asked to describe the aims of the subject in interview 1:

> "...you have got to get kids thinking…assessment and progress…knowledge of the sport being taught…independent group and partner work…exploring new skill...imagination…creativity …possibly leadership skills..." (Ruby 1: 67-69).

While there is a reference to 'independence' it may be that she is demonstrating a 'drift to teaching' and that this is an aim of the teaching rather that an explicit reference to any aspirations she has for the 'good' student. The phenomenon of the 'drift to teaching' is the idea that at times, the participants were asked questions about learning but their responses 'drifted' to talking about teaching. This is considered in more depth in chapter 10. It may also be that for Ruby, it is not that she does not value independence but that there are other aspects which are of greater immediate importance to her.

The 'good' student was also described in terms of personal qualities. When describing a 'good' student Dylan says,

> "I would say he is confident…….hard working and he...and he……yeah he is quite good across the board...everything we do…he is a solid student…he is polite…he is nice...he listens…he always got has the right kit…" (Dylan 2: 263-265).

In this Dylan is constructing the 'model student' primarily in terms of personal qualities and their levels of adherence to school rules and personal organisation. He says, about the boy, 'he is polite' 'he is 'nice' 'he listens' 'he always has the 'right kit'.

Jude talks about the assessment criteria the PE department use as a way to identify the characteristics of the ideal student. When talking about how to gain the highest grades, he talks in terms of a range of personal qualities:

> "…and it is not just the traditional physical attributes…Mmmm...so we look at things like their leadership, their coaching, their technical ability, their understanding of tactics, their application of theory, their fitness,……their character...and…their sort of...commitment and their motivation their mind set towards PE a positive attitude and all those sorts of things so we look at all those strands and obviously you don't look at all those in a single lesson but across the course of the year in different activities they are the things we focus on..." (Jude 2: 174-179).

Explicitly, Jude is saying that there are a range of qualities such as technical ability as well as more personal ones such as 'character'. It is worth reflecting on his notion of commitment. This could be interpreted as a commitment to following the 'rules' of being a good student or might be seen as a commitment to their learning. He also includes mind set. It should be highlighted here that participants saw the criteria in the assessment structure as a way to recognise student capabilities. This was couched almost as a kind of reward and that part of the rationale for their in-house assessment criteria were based on this idea of assessment as a reward and acknowledgement. The question of a wide range of assessment criteria can be read in a very inclusive way. This has resonance with Gardner's multiple intelligences (1993) where the focus shifts from 'how intelligent' to the ways *in which* people are intelligent. The other possibility is that at some level of consciousness there is a feeling that some children will not be able to get a 'good' grade where criteria are more focussed on physical competence and so 'crediting' them in another domain is seen as a kind of compensation.

When Ruby is asked to describe the strong student in PE, she is very quick to respond:

> "Oh god yeah straight away...eccentric…extrovert...happy...passionate about the sport…eager to please the PE teacher...eager to do well in everything...just the love and passion for sport and their…and their PE teacher and the subject" (Ruby 3: 139-141).

Ruby frames her reply in terms of personality and being 'eccentric' and also in terms of wanting to please the teacher. She then assumes an intrinsic interest in the content

of the lessons when she says, 'just the love and passion for sport'. It should be noted that Ruby defines the content of her lessons as 'sport' rather than PE. This idea of wanting to please the teacher was not a perspective that was widely espoused although as teaching can be seen as an activity that is deeply intersubjective, this might be an avenue that is worth exploring further. Not least as 'pedagogy' has been conceptualised as being, in part, a relationship between the teacher and the student (Van Manen, 1982; Daniels, 2001). Dylan's response encompassed eclectic dimensions that were consistent with earlier comments:

> "Well I immediately thought of a child…who is an excellent footballer and all-rounder and then there is also a child who isn't necessarily…as good…as him but he is good in other ways...he is refereeing for me on Thursday for example..." (Dylan 3: 335-337).

In this, he talks in terms of physical competence and then switches to describing another child who is capable in other domains. He then builds on this:

> "His knowledge of sport is excellent…the fitness is there...he is nowhere near as good technically as the other child… "(Dylan 3: 339-340).

Dylan appears to have an eclectic notion of the 'good' student. He talks about two contrasting students and also speaks in terms of a wide range of attributes. When he says that the fitness 'is there' this can be interpreted as him seeing that fitness is important but that it is a capacity that the child has, rather than something that is developed in the lessons. In the second interview, when asked to describe a child of 'lower ability', as quite a detailed reply he says,

> "Yeah this child at the low end of the ability scale is a lovely lad...when you break him…he is good…" (Dylan 2: 288).

The tone of this response does not seem to be in line with other comments about the children. The idea of 'breaking' the child seems synonymous with wild horses being tamed so that they can be ridden by people. This is very much at odds with the way he constructs the students in other sections and can be read as an extreme nuance!

9.2.3 The 'good' student: summary
For the participants in this research the good student in PE was defined in terms of their independence, personal qualities and how they might be seen as 'ideal' in the

assessment criteria. It is noticeable that there was no reference to how well they learned. This might be because it is not considered to be a 'pressing' issue or because other factors were felt more important. It might also be an example of inauthenticity. If the other teachers and the prevailing demands in the context mean that is not a discourse that has relevance then it is automatically pushed to the periphery of their consciousness. This can be interpreted as an example of embodiment in that the student *is* seen as the sum of their characteristics, although it has to be remembered that these qualities are being reflected *onto* the students by the participants. What can be said is that the participants prefer the independent student, and are very mindful of what can be described as pro social behaviours such as politeness and diligence. In a sense, much of this can be seen as closely related to the idea of learning revealed rather than developed which was a theme that emerged in chapter 8. Of course, what motivates the 'good' student is a key dimension of these interpretations and this is considered in section 9.3.

9.3 Motivation
9.3.1 Motivation: Introduction
It can be said that a weakness of many learning theories is that they fail to take into account that for learning to occur the learner has to be motivated to learn what is required to be learnt. This is especially the case in behaviourist and many cognitive theories where to an extent, the learner is missing and motivation to learn is assumed. Illeris (2007: 95) referred to motivation to learn as the 'incentive dimension'. In this he conceptualises motivation as, "…the mental energy that is the driving force of learning". In a phenomenological perspective, 'motivation' can be seen as a 'fluid' concept (Merleau-Ponty 1962). The idea is that this can be read as an example of an application of intentionality. The person directs their attention to something and that will bring about a reaction that might cause the person to persist or not, of course. This involves the affective nature of being and how things in the world appear to the person. When a person feels motivated, they become aware of possibilities and are attracted to them in what Merleau-Ponty refers to as an 'intentional arc' (1962: 136).

In thinking about motivation, Ricoeur (1991) points out that any project that a person undertakes will have a motive.

"I cannot identify a project without mentioning the action I am going to do: this is a logical and not a causal connection. In the same way, I cannot state the motives of my actions without relating these motives to the action whose motives they are." (Ricoeur, 1991: 128).

In this research the 'project' can be seen as the participants seeking to teach their students to learn particular elements of PE and so, in effect, they are stating the motives of their actions. How they understand their students is important as without the students, any theories of learning have little purpose. When Ricoeur says, 'logical' he means this in terms of the 'purpose' that the participants may assume and so it is subjective and should not be assumed to be a matter of some objective realism. This has particular significance in this research, as how the participants describe motivation in their students, is of interest when interpreting their theories of learning. In this section the themes are, the teacher-student relationship; motivation being viewed as something that can be given to students by their teacher; all children being motivated by competition; assessment grades motivating students; students being motivation as a surprise and reasons given by the participants to explain lack of motivation.

9.3.2 Motivation; Interpretations

In reflecting on Vygotsky's (1978) learning theories, Daniels (2001) argues that an element of effective pedagogy is that there is a relationship between the teacher and the student. In Hattie's (2009) meta-analysis of the effects on learning the teachers influence is claimed to be in terms of fostering positive teacher-student relationships. Given that it might be expected, that would be a feature of the discourse but in this fieldwork, there are few references to this:

"I think that the kids enjoy being in the same room as me in a lesson...format. I think my character…I have not been taught that is just who I am…it is quite up and bubbly in the classroom and I know it works" (Dylan 1: 135-137).

This is a rare example of a specific reference to the idea that the children might just enjoy being with the teacher. Similarly, when Ruby is asked to describe a capable student in PE, part of her response is:

"…eager to please the PE teacher..." (Ruby 3: 139-140).

This concept of children wanting to 'please' their teachers is understandable, especially if teaching and learning is viewed, to some degree, as a matter of intersubjectivity. In a way, the lack of specific references to interpersonal relationships is not as surprise as it may be that the participants felt this was too bold a claim and they preferred to present themselves in a more self-deprecating manner. It may also be that teacher-student rapport is felt to lie outside the more rational and technical focus of educational policy. There was one instance where Jude acknowledges that this might be the case for the other teachers in the department:

> "I think once they get into the lesson and they're doing the lesson and they're participating in the lesson, I think that certainly the staff that we've got at our school, they love it and they have a great time and they enjoy it and they learn and they progress but it's that initial hurdle of getting them there and on board if you like" (Jude 1: 287-290).

This can be interpreted in two different ways. First, as a kind of party-political broadcast on behalf of his department. He is saying that the teachers in the PE department would be able to nurture positive relationships. Second, that perhaps this is about self-deprecation as he might have thought that this was a key idea, but felt uneasy claiming it for himself.

In chapter 10 (Theories of teaching) it is argued that the participants, for the most part, held a transmission theory of teaching. That is to say, they spoke as if, what is to be leant is a commodity of some kind and that it can be 'passed' from the teacher to the student. There were instances where the participants referred to motivation in a similar way describing it as if it was something that could be 'given' to students:

> "...kind of ideas even though when I talk to them…the ideas come through...but they just... don't have the confidence to go through with them…so it is then trying to give them a bit of a motivational boost…" (Darcie 1: 70-72).

Darcie is reflecting on the processes that children go through when engaged in activities that require a creative group response. She interprets what she sees as a lack of significant engagement in PE lessons as a lack of confidence and she is saying that to address this the children need to be more confident. An alternative perspective would be that we might gain confidence from feeling that we have achieved (Claxton, 1985; Jarvis 2005). There is also the idea that she appears to discount the possibility

that the children did not find the tasks to have intrinsic appeal. In the final interview Ruby is asked that she does to try and help the children learn:

> "Straight away you have got to inspire them get them motivated right from the beginning…right from the onset...then you have got to get them moving…then you teach them the warm up and then the lesson objective..." (Ruby 3: 268-270).

Ruby talks in terms of giving the children motivation to learn and then says that this is not required in learning mathematics. This is a little ambiguous. It might be that she assumes that the children will be motivated in maths because they all like the subject. Or it might be that there is a kind of implicit curriculum hegemony at work. That is to say, she assumes that, as maths is deemed to be important, that the children will naturally be motivated:

> "…kids need lifting then need inspiring they need motivating...to learn...it helps them learn doesn't it especially with PE…because you know...you don't need as much motivation teaching maths like that but you still might have a different way of inspiring and motivating them with what you do...the kids you have got to get them going…you have got to...they have got to be active… and it helps..." (Ruby 3: 275-279).

Later, in the same response, she rehearses some of this again. She appears to assume that children will not be motivated in PE but that this is not an issue in maths. All of this is expressed by Ruby in an undifferentiated manner as if she sees the class as comprised of a homogenous group of children (see chapter 10 for more on this). Jude spoke in terms of presenting the activity in PE lessons in a way that he hoped would win the children over to seeing value in the activity. This in turn can be read as a way to understand how he sees motivation to learn:

> "…immediately they are thinking Badminton is great, Badminton is fun, Badminton is this, badminton is that...and…all of a sudden it is something they want to do and they want to do more of and they really get into it..." (Jude 2: 254-256).

In a study into PE teachers' ideologies, Green (2003) found that a common conception was that the participating teachers in his study felt that the subject should be 'fun'. Jude is suggesting that he is teaching in a way to actively draw the children in and stimulate their motivation.

There was a tacit acceptance that children are inherently competitive and that this would act as a source of motivation. The idea that competition is an 'unavoidable fact of life, a part of 'human nature' is contested by Kohn (1992) who argues that in most

cases, human 'success' comes more through co-operation. In the second interview, Darcie is describing an Outdoor and Adventurous (OAA) lesson:

> "So to keep their motivation up. So…we had one group that were doing…a bit of a relay with bricks and trying to build the biggest tower of bricks and then we had another group who were …playing like…tic tac toe..." (Darcie 2: 15-17).

It seems that she is assuming that the competitive structure of the task would be seen as a motivating factor for all of the children. Implicitly, this may be seen as motivation to engage with the task rather than motivation to learn from it. There was a perception that the participants felt that the children were motivated by competitive aspects of school, in particular, around how learning tasks are structured and assessment. In talking about structuring tasks Jude says,

> "…they love to have that element of, 'oh how many did you get? how many did you get? I want to get this I want to get that' and it really motivates them and pushes them forward...I am not saying to the detriment of…of the other students or to the lesson but just to build that bit of friendly competition a bit of motivation it works an absolute treat..." (Jude 2: 90-93).

Jude is espousing the idea that children competing in this way, is a positive source of motivation for all of them. There is also a possibility of a side effect of this which is, that the children focus on 'winning' rather than mastering the finer points of the technique at hand. Those two projects are not necessarily congruent. Jude does not express a preference or recognise this as an issue but he was not asked about it. The question of the extent to which the project of gaining the grade and the project of learning the subject content is examined in more detail in chapter 10 of this thesis. One factor that is important is the extent to which the participants see that PE is about learning to compete or learning through competition. This was considered with Dylan:

> **CC-** ……..My original question was whether you felt that it was about learning to compete or learning through competition or do you see them as the same?
>
> **DJ-** Yeah…yeah I would see them as the same yeah…yeah (Dylan 1: 24-26).

It seems quite possible that this question took Dylan by surprise and when presented with a closed question, he was happy to agree.

The perception that the children were energised by competition seemed to be an unquestioned construction of the children and this emerged when the participants were reflecting on the place of assessment grades in learning. What is not clear is

what the participants felt the children might be learning. It is almost as if, at an implicit level, they are seeing the activities in PE as one of 'purposeful occupation'.

There was an assumption that assessment grades were a source of motivation for the children. Again, when this was expressed, there seemed to be an assumption this applied to all children:

> "…kids like to see some sort of grade…so they know how they are performing...in an activity… I do feel…that is just my own feelings…and all I have been used to...in all my years of teaching" (Ruby 3: 209-211).

Interestingly, Ruby frames this in terms of 'performance' rather than 'learning'. This may well be because of the policy discourse related to teacher accountability but to some degree, it might be that her assessment 'radar' is more set to performance rather than improvements in competence. It is also significant that she says this is 'all I have been used to'. This could be related to the 'drift to teaching' that is developed in the analysis of conceptions of teaching that is the focus of chapter 10. This can be read as Ruby's need to be on ground that she is familiar with and so possibly a moment of inauthenticity. It is significant that for the most part the participants spoke in terms of assessment being 'given' to them and they do not see themselves as having agency in this. It has been noted that, at times, the participants use the term 'push' as a synonym for the verb to teach and also use the term 'progress' as a synonym for learning. 'Push' seems to be particularly significant as it suggests that the teacher is providing the impetus for learning and that perhaps, as some level;, they expect the student to be resistant. This might be due to the kinds of performative cultures that tend to dominate school practices.

Dylan takes a similar perspective and frames it in terms of visibility:

> "I like the fact that they can see progress...you can put it on a bit of paper...you can verbally talk to them about it…and…they like that…the sense of achievement that they get from moving up through grade boundary" (Dylan 2: 219-221).

Dylan claims that children like grades because they can 'see' progress. The question is the extent to which he feels that the children seeing the number of the grade getting better, is related to the feelings of gaining competence or mastery over particular subject content. It must be noted that like Ruby, he has a personal investment. He prefaces this by saying, 'I like the fact they can see progress.' So here it is 'I' like to see the progress. So perhaps implicitly he sees the place of grades as something he

is endorsing on the children's behalf rather than a preference that the children have expressed to him. If a child is learning to high jump it is possible that improvements can be felt by the learner and seen by the teacher and so any grade could be, to an extent, superfluous. In the second interview Dylan is asked how he feels the assessment processes help children learn:

> That is a good question……I think that the levels…for the majority of the children at this school …levels work to encourage them to progress...which in turn would instigate them to learn…but I don't think they…realise...it is making them learn…it just makes them more determined…and it is most probably making them determined to be better than their mate...as opposed to better in themselves" (Dylan 2: 179-183).

There is much to consider here. Dylan starts by acknowledging that this is a good question and this might be read as a moment of authenticity. The next point is that he does assume a level of heterogeneity when he says that 'for the majority of the children'. He then suggests that the levels are 'making' the children learn but that they don't realise it. So here he is recognising the possibility of tacit knowledge. He also suggests that the grades make children more determined and that this promotes competition between them. A little earlier, Dylan was making a case for assessment grades, encouraging 'progress'. It is possible that 'progress' can be seen as a signifier of the managerial discourses that underpin much of the neo-liberal ideologies. This is related to Heidegger's claim that 'language is the house of being' where the speech act should be viewed as the process of disclosing Dylan's 'being in the world'. Also, worth noting, that in his mind, the act of 'harvesting' or attaining the levels has privilege. He says that the levels work to encourage the children to progress and that, in turn, instigates learning. So here, it can be interpreted that for him, the principal objective is obtaining the levels, and the learning is a means to achieve this. This is a perspective that might be viewed as a reversal of the aims of assessment. Jude is asked if a child that he has cited as an example, is motivated by getting a good grade:

> "I would say most students up to probably the end of Year 9 are motivated by having a really good whole PE grade in the assessment framework…you can get some groups within Year 10 who ……..who are still motivated by that…but them as you get higher through Year 10 into Year 11 students are 15 16 years old at that point then they are just motivated by their own interests" (Jude 3: 94-98).

In this, Jude is expressing the assessment grades and children's motivation in a rather homogenous manner. He is also saying that his interpretation is that as the children

get older, they are more motivated by their own interests than by what is on offer in school. It might also be that for some children, the idea of gaining grades has motivation but for others less so, and that this might be related to the level of grade that they feel they are likely to attain.

There was little sign that the participants felt that grades were not a motivating factor although Darcie says at one point,

"...I think assessment means more to some than others" (Darcie 3: 461).

On a similar line, Dylan also expresses some misgivings:

"Yes sorry I mean demotivating. the kids who are getting low grades continuously week after week or block after block after block" (Dylan 3: 321-322).

Dylan seems resigned to seeing grades as a form of comparison and does not appear to feel he has the agency to push back against this. He is expressing the view that grades are viewed by the children in a norm-referenced manner and he seems resigned to this. It should be noted that none of the participants spoke of the possibility of assessment framed in an ipsative or self-referenced manner.

There were a few moments when the participants spoke as if they were surprised that their students displayed motivation:

"…they all seemed highly motivated and…I just remember at the end of the lesson...thinking …god that really went well" (Darcie 2: 32-33).

This can be interpreted as a genuine surprise but it may also be read as in a self-deprecating way. Darcie is saying that things went well and was a 'success' but she is playing it down. Similarly, Dylan, in reflecting on his hurdles lesson says,

"I was surprised at how…interested they were...how keen they were to really work hard at something they did not know they would be doing...something they have never done before …and most probably won't ever do it again" (Dylan 2: 344-346).

Here Dylan says he is 'surprised' at the children's efforts but also describes their activities as 'work'. Langer (1997) makes the point that describing any human activity as 'work' has connotations of drudgery, being arduous, lacking in choice, and having external goals set. This may be an example of how Heidegger (1962) saw discourse

as a way in which the meanings for the world are manifested for *Dasein*. That is to say, our being-in-the-world is intelligible through the choices of language we have at our disposal. So, when Dylan uses the term 'work' it might be that he is merely drawing on a discourse that is used in his community in an unreflective manner which can also be seen as a moment of inauthenticity.

It has been noted in section 9.2.5, that the participants talked about the students needing to be 'pushed' and so it may be that there is an assumption that the children, to an extent, are assumed by the participants to be lack the motivation to take advantage of what is on offer. This can also be seen to have resonance with section 9.5 where it was noted that the participants often spoke about classes as if they were comprised of sets of relatively homogeneous children:

> "…and if they can get that drop shot in…I'll maybe give them 2 points and if they just win the point without the drop shot...maybe give them one point…so it gives that extra motivation to attempt a drop shot..." (Jude 2: 400-402).

Jude is talking about 'motivation' as something he was 'giving' to the children and he assumes that that this serve to energise all of the children

> **CC**- Yeah and do you find that the kids are motivated to show best character?
> **Jude**- Without a doubt yes, and if for whatever reason they have a bit of a wobble...they do something that is out of character or shows poor character... (Jude 3: 85-86).

Jude's reply to a question about motivation to show 'best character' he appears to assume that all children will be keen to do this. There was no follow up question to this at the time but the idea of understanding how the teachers feel that the children construct them would be of interest. In considering the efficacy of teacher questions Jude says,

> "…because you need to know your individual students you need to know where they are at you need to go right I will ask this question to this student..." (Jude 3: 199-200).

There were a few moments when the participants offered reasons for a perceived lack of motivation in the children. In terms of barriers to learning, Darcie argues that the lack of motivation displayed by some female students is due to cultural values:

> "…definitely a sick note culture and then…just general laziness sometimes not wanting to get changed…I have a big issue at the minute about having cooking and PE on the same day because their bags are not big enough and they are not willing to carry two bags" (Darcie 1: 226-229).

This is a particularly rich response, as in effect, there are three lines of interpretation. First, Darcie talks in terms of 'general laziness' from which it can be assumed that, at some level, she sees 'lack of effort' as a global disposition. This can also be viewed as an entity perspective which is considered in more detail in section 9.3. Second, she is suggesting that this is a matter of culture. If culture is defined as the social practices of a group (Kidd, 2002) then she is saying that many children are almost helpless members of a social group and are in effect, shaped by the customs and values of that group. The final point is that Darcie assumes that a critical mass of the children privilege cooking lessons when they have PE on the same day because they don't want to carry their PE kits as well as their ingredients. This idea of increased laziness with age is also a feature of Ruby's response:

> "…once they start growing older...into Year 9 and especially in Year 10 it is a can't be bothered thing...it is a can't be bothered to do it...even some of the top sporting girls...because as they have grown through the school they are just getting lazy and it is more in the sense of… embarrassment in the changing rooms…more than doing the PE…so this is a different light we are looking at here" (Ruby 3: 153-157).

Here, Ruby is arguing that 'even' 'top sporting girls' are particularly affected by the reduced motivation that is correlated to key stage 4 age children. Presumably for Ruby, there is a close correlation between 'strong sporting girls' and motivation in PE lessons and is an example of her employing a 'sporting' discourse. What she does not say is how this motivation is directed. It might be that those girls like to play sport but are less keen to improve. It might be that the members of the 'strong sporting girls' group are very different. Ruby also makes the assumption that the younger children will automatically display motivation. It is worth considering whether or not this is the case or if for some of the children they are keen to present themselves in a positive way:

> "Well absolutely in Years 7 and 8 they...that is because of their age and their love and their passion…that they love their PE lessons and they are enjoying their PE lessons…" (Ruby 3: 152-153).

It is possible that children of Years 9-11 also have 'love and passion' but it may be that school is deemed to be less worthy of their attention.

9.3.3 Interpreting student motivation as a way to interpret personal theories of learning: summary

There is a strong suggestion that what drives us in life, is an intrinsic love of the thing itself (Pink, 2009). What seems to be the case here is that, for the most part, the participants see motivation as a form of a general reservoir of latent energy rather than something that is dependent on the interplay between their subjectivities and contextual factors. Also, that this motivation is not necessarily directed to learning but to energetic and enthusiastic occupation. In phenomenological terms, it can be said that the person experiencing the *noema* (what is experienced) might find the process of experiencing (*Noesis*) to be a pleasurable one and that in turn, it might foster the desire for more. This may be why people like to listen to the same song many times because it has an intrinsic appeal. In relation to theories of learning, it can be said that the participants tended to see motivation in a relatively unnuanced manner. They often spoke about groups of children in an undifferentiated way. So, it was assumed that in the main. *all* children like to compete and that they are *all* motivated by being allocated a grade.

What is not clear, is how this motivation is being directed. It is almost as if demonstrating engagement is enough. When considering motivation, we need to be explicit about what the students are directing their motivation towards. Perhaps this can be seen as a form of intentionality that is directed at something. Underpinning this may be the lack of certainty about the aims of the project of teaching PE. In chapter 8 where the participants' perceptions about the aims of the subject are explored, it is evident that there are some nuances.

9.4 - 'Entity' and 'incremental' perspectives.
9.4.1 Entity and incremental perspects: Introduction
The concept of entity and incremental theories was developed by Dweck (1999) and is now a feature of the discourse in many schools. The principal idea is that how we view our personal characteristics is deemed to be of significance. A "fixed mindset" assumes that our character, intelligence, and creative ability are static which means

they can't be changed in any meaningful way and are said to exist in people as an 'entity'. Success is then the affirmation of that inherent intelligence, an assessment of how those given capacities measure up against an equally fixed standard. This can lead to striving for success and avoiding failure at all costs becoming a way of maintaining the sense of being smart or skilled. Also, that the level of competence, as it is seen to be 'fixed', then is assumed to dwell in us an entity. A "growth mindset," or incremental perspective on the other hand, thrives on challenge and sees failure not as evidence of a lack of intelligence but as a springboard for growth and an opportunity to stretch our existing abilities. Out of these two mindsets, which it is argued we manifest from a very early age, springs a great deal of our behaviour, our relationship with success and failure in both professional and personal contexts, and ultimately our capacity for happiness (Dweck, 1999). Of course, such a perspective can also be applied to how teachers see their students. If teachers see their students in an entity manner then they may see them as fixed and, in a sense, 'beyond' help. Alternatively, if the teacher sees the students in an incremental manner, then they are constructing them as people of potential and promise, most certainly not fixed. This can be seen as related to stereotypical constructions.

9.4.2 Entity and incremental perspectives: Interpretations

In this section entity and incremental aspects will be developed with regards to the certainty that the participants expressed an understanding of their students' knowledge and predispositions. Jude in talking about his Year 7 class says,

> "I mean Year 7 boys they are just rough and tumble..." (Jude 2: 247-248).

So here Jude constructs year 7 boys as enjoying 'physical' play. One of the key themes to emerge was the certainty with which the participants spoke about their students' prior knowledge. In the middle of a long reply where Dylan is describing his hurdles lesson he says,

> "It was great...the results were...none of them will have hurdled before, I can guarantee that and seeing them really concentrate on getting that lead leg down onto the ground as quickly as possible...it's good to see" (Dylan 2: 23-25).

In this section Dylan starts by talking about the success of the lesson in terms of 'results'. This might be a synonym for learning or it might be that he is employing a discourse that is more readily associated with 'outcomes'. Here, Dylan says he can

'guarantee' that none of the class will have hurdled before. This may seem like a case of hyperbole and it could be that Dylan is seeking to make the case that he was especially pleased at the levels of competence that the children displayed in the hurdles lesson. In a similar view Jude, in describing his exemplary lesson, talks in terms of badminton being an activity that was also not something which the children were likely to have done before:

> "….and we were doing badminton...and it was...it is one of those sort of activities where…it is not your football or your rugbys…or…it is not something where kids might have particularly done it before...or would do it outside of school...which I quite like because what it does it brings everyone to a bit of level playing field..." (Jude 2: 12-15).

Jude is saying that Badminton is not something the children are likely to have done or even will do and it is not clear what makes him say this. The next section where he talks about all the children being on a level playing field can be subject to two interpretations. First, that the class are presenting in a more homogenous manner and this, implicitly, may be seen as easier for the teacher as less differentiation is required. Second, and more implicitly, he may see that if the class are 'of a level' then it is much easier to organise fair competition. On a similar line, Darcie is asked about surprises she might have had in her OAA lesson:

> "…but it is those students…that who are within that group lower down again and probably won't have done the activity before who come out of themselves can surprise me the most…those students who step forward from the line...and you kind of go…that is pleasant...you know...I did not think you would do that…" (Darcie 2: 187-189).

Again, assumptions about her students' previous experience emerge. She then couches the surprises, for her, not in terms of competence, but in terms of 'stepping forward' which can be interpreted as taking an obvious, leading role in the lesson. The extent to which the participants see this as a project in developing competence or revealing it, will be examined much more closely in chapter 10.

Darcie clearly had a very good awareness of fixed mindset and spoke with some insight about this as an issue. In responding to a direct question about matters relating to a fixed mindset she says,

> "I definitely think we have a lot of pupils with a fixed mindset in terms of aspirations and…just the general...you know...self-belief and self-worth...and having low aspirations it is quite easy to stay in a fixed mindset…and not try new things" (Darcie 3: 157-159).

One of the things to note is that implicitly, she seems to be saying that mindset is a global disposition in the children. A 'global disposition' refers to the idea that we may have a personal quality like determination and it is assumed that this is automatically applied to all aspects of our lives. It seems possible that, like intentionality, this could be deeply situated. That is to say, a child might feel that they are fixed in some activities but in others they might feel they can try and succeed. Of course, this posits the question of what 'success' in learning is and also what might prompt effort and interest. It is also significant that she frames this in terms of 'trying new' things. This is perhaps, best interpreted as part of the process of refining competence. She then develops these ideas:

> "…it is going to be tough for them mentally...because they are not going to have the skills or the tools to deal with it because...they don't want to…because they are so fixed in their way of thinking that…If they can't do it they don't want to know...they don't want to try...it is sad in a way because the more…positive reinforcement you give them there is always a negative come back" (Darcie 3: 172-176).

From this it can be interpreted that she sees the process of 'transfer' in a relatively straightforward manner. There is also a tacit assumption that she views resilience as a skill rather than a personal quality. As in motivation, there is an implicit assumption that this is a global disposition rather than a quality a person might bring to bear on some situations but not others. There is also, what amounts to a 'council of despair' when she says that 'there is always a negative come back' which can be read as an entity perspective. In the second interview, Darcie is asked about the department's assessment structure:

> "…for some of those students...they will only get so far up that chain anyway…" (Darcie 2: 414-415).

At this moment, Darcie is 'constructing' some students in an entity manner by assuming 'they will only get so far up that chain'. In the final interview, Darcie concludes by saying that the difference between fixed and incremental is best seen on some form of spectrum:

> ".. I would say it is more of a spectrum" (Darcie 3: 186).

This can be seen as another inconsistency, as before, there seemed to be an implicit assumption that there was a binary at work. That is either the children had an entity or an incremental perspective.

It is argued here that entity perspectives were manifested in different ways:

> "…and as a teacher I will say to them that there will be a sport that you will be really good at …and there might be a sport that, you know, you find it quite difficult but you must try…and what you see is their confidence blossom…..because that girl was…may not be so good at gymnastics…but she is fantastic at shot putt...or she is not good at netball but she is brilliant at running…" (Ruby 2: 74-78).

The explicit perspective is that, Ruby is saying that education is about revealing talent as she says that there is a sport 'for you to be good at'. So, it can be said that implicitly, she is stating that the process is not about learning over an extended period of education but about finding a match between activity and the child. This also assumes that Ruby feels that the child could be automatically and immediately competent. In this, the implicit theory is that she does not see that a love of content might be nurtured over time and that as the person gets to know it better their liking grows. This perspective also has implications for implicit theories of how she sees the school curriculum. Where does she see the trade-off between giving children a kind of buffet of options or taking time to practice and develop competence.

It may also be that this issue is not one that the participants have reflected on a great deal. In the second interview Dylan is asked to consider the extent to which ability can be changed:

> "Yeah I think that there is a certain level that people can achieve…….maybe…oh I don't know …Chris ………..we always have a joke…..in Year 7…when we get them in Year 7 in September and we have to set them into an A and a B group…and myself and a couple of colleagues are convinced that we could set them by just getting them to either jump or run…" (Dylan 2: 301-304).

What is most significant here, is that the notion of ability changing, appears to be something he has not reflected on. Of course, that teachers' professional lives are often framed by technical and managerial discourse is well documented and it may well be that this has not formed part of a professional discussion with him in his career to date. It can also be read as an instance of inauthenticity.

When asked about life skills and the set classes Dylan says,

> "(on life skills) …They tend to have them already...they tend to be more…socially aware
> with each other…they are able to sit down and…be quiet in a group" (Dylan 3: 36-37).

Here, 'life skills' implicitly, are something that those students have learned and so in a sense learning is finished or complete and he sees couches this in terms of an entity perspective. There is no more to be learned. What is not clear is whether life skills are seen as worth learning to enable the lessons to go well or whether they have intrinsic worth. Darcie was asked about how notions of fixed mindset might be an issue for teachers themselves:

> "we are human beings at the end of the day as well…with our own trials and
> tribulations…and sometimes then…you've…their mindsets can hold them back in the
> sense of what they think the child is actually capable of…" (Darcie 3: 195-197).

Her reply to this is a little unclear and hesitant so it may be this is something she had not considered before, or an issue that she has not come to any conclusions about. This also related to notions of the children as fixed, Jude has mentioned that some children are academically able and others are practically able. He is asked to elaborate on this:

> "…so when we are talking about the difference between a practical student and an
> academic student...well obviously you can be both…but sometimes...you might just be
> one or the other..." (Jude 2: 184-186).

Jude is asked about how competence transfers between activities. The focus is on decision making and the question is the extent to which these competences are 'global' or situated in specific domains. His reply is instant:

> "/global, 100% because if you can make...if you can make a good decision in badminton,
> then you're probably far more likely to make a good decision in football and rugby and
> gymnastics and... whatever you're going to be teaching so I think...you know...you can
> teach good decision making that's going to affect the whole of...of PE" (Jude 1: 63-66).

This is a significant perspective because he is saying that good decision making is a form of core competence that can be applied across all PE subject matter. Implicitly, this means that in effect, the content is less relevant. An example of this is to be able to 'fix' a defender, which is a principle of play that can be applied in any invasion

game. So implicitly, Jude is saying that whether the game is basketball or water polo, it makes little difference how the student can learn to apply this.

Ruby's construction of the children can also be interpreted in an entity manner but she spoke in terms of how she understood the children's personality:

> "Yes……….well the more extrovert, eccentric personalities are usually your…all the years I have been teaching, your top set sports girls…and then the more introvert…are your more lower band sports girls…that is just the way it has been really" (Ruby 2: 131-133).

This is part of an extended response about how she sees the children in her classes. This section is significant for three reasons. First that it can be interpreted that Ruby is articulating a strong correlation between children who she feels have a more extrovert personality and higher competence in PE. Then by implication, that the less capable children are more introverted. To extend this theory, it might be construed that she sees a change in personality, necessary for improved learning. Second, she is describing the capable student in PE as being 'good at sport'. She does not make any distinction between competence in sport and the range of personality types. Indeed, she goes as far as to say 'lower band sports girls' so at this moment she is seeing those children as defined by their low ability in 'sport'. This should be read as another instance of nuance, as when asked about the aims of PE, she talks in terms of fitness; team work; knowledge of sport; independent thinking; developing technique and developing self-esteem:

> "…in fitness so they understand what is happening to their bodies when they are exercising and things like that…....progress…team work...partner work…knowledge of different sports… thinking skills…understanding new sports…so they understand what the objective is so they have to think for themselves…well if we are doing this technique what are we doing it…so why are we doing this technique...and why are we doing this new skill………fair play...improvement in each sport…self-esteem" (Ruby 1: 4-8).

In the second interview, Jude has mentioned children being practically able and academically able. This prompts a long response of which the section below is a part:

"...when I say how good you are ... I mean like...physically technically...how good were you ...rather than looking at all the other aspects...I mean there are so many students who ...they might not be the best player on the pitch...in a particular...or on the court in a particular game ...but their leadership skills might be...by far the best they might understand the tactics and they might understand/ they might have really good communication skills" (Jude 2: 206-210).

Jude's position is a little ambiguous. Initially, he appears to say that his first point of reference is 'physically technically' which can be understood as mastery of practical knowledge. He says 'how good were you' and then, 'rather than looking at other aspects'. However, he then appears to develop a different line when he says that he looks for qualities other than technical, such as leadership and communication. From the point of view of interpreting theories of learning, Jude is talking in entity terms. He says they 'might have good skills'. His focus on wider competences might be seen as an inclusive perspective. It could also be read as, implicitly, a way for him to deflect the focus on helping the children to learn. There is another interpretation which is the idea that Jude might be seeing this as a case of the children not making expected progress in technical aspects and is pessimistic about the chances of progress. In order to give the children more chances to show their competence he opens up new criteria.

9.4.4 Entity and incremental perspectives and the teachers' theories of learning: summary

Given the deeply intersubjective nature of phenomenology, how teachers construct their students is important and it is axiomatic that teacher perspectives may well be transmitted as part of 'hidden curriculum' messages. The idea that implicitly, for teachers to see their students as fixed, even though this may occur in different ways, has at least two implications. First, that implicitly, the teachers might be expressing a lack of agency on their part to help the children learn and develop. Second, that at some level, this also applies to how they see the children. IPA "...attempt to capture the experiences and meanings associated with a phenomenon..." (Willig, 2008: 64). In this case if they see the children as fixed then this can be an important element of their theories of learning and might affect how they approach lessons.

9.5 - Classes are viewed principally as homogenous groups

9.5.1 Introduction

The idea of seeing groups of people as homogenous makes sense as it is an easy way to categorise groups of people. This is the basis for Social Identity Theory (Hogg, 2016) which assumes that we don't just classify *other* people into such social categories as man, woman, Anglo, elderly, or college student, but we also categorize ourselves. Moreover, if we strongly identify with these categories, then we will ascribe the characteristics of the typical member of these groups to ourselves, and so stereotype ourselves. If PE teachers assume that, for example, they are good at behaviour management then if a PE teacher identifies with that group, they may well assume they are also good at behaviour management (Hogg, 2016).

Even though we may realise that the group is comprised of very different people it makes it easier for us to think of them as sharing characteristics.

9.5.2 Classes viewed principally as homogenous groups: Interpretations

One of the features of the fieldwork in this study was that the participants often spoke about classes as if they were homogenous groups of children:

> "…so this group in particular, are very good independent learners as such…" (Darcie 2: 91).

Similarly, when reflecting on the top set classes in key stage 3 Dylan says,

> "Do you know what I mean…I always find it difficult to put it into words...it is more a feeling… yeah John's A groups are socially more…aware..." (Dylan 3: 40-41).

It is significant that while Dylan appears to want to be rational and objective, he goes with saying his feelings about the group are based more on his emotional response:

> "I think……it depends on the group you have got...and what they are capable of...and it also depends on the game itself" (Jude 3: 322-323).

Dylan had a much more humorous take on his class but never the less it was couched in undifferentiated terms:

> "…they are still glazed most of the time…head butting the floor…eating the fake grass...so it is rarely that I do that with them…" (Dylan 2: 92-93).

Darcie is reflecting on how she sees 'independent learning. She talks of independence as a matter of the children being given 'leeway'. Implicitly, she is saying that the power lies with her and she 'gives' the children the chance to be independent:

> "…whereas there are other groups it works really well with because you can give them that leeway…because this is definitely not a one model fits all approach…there are groups I know I can do the independent learning and just allow them to go off and do their own thing" (Darcie 2: 310-312).

What is significant is that she talks in terms of this being a strategy that 'works' with the whole class. This is an idea that is expressed in a similar manner by Jude who is considering how he teaches games:

> "…so...how do you teach games…depends on the game itself and what it is conducive to …ummm...it depends on the group you have in front of you...some groups are not able to do that...that scenario I outlined with the rugby…some groups are not able to do that...so you might start at the very bottom and work your way up with skills in isolation...." (Jude 3: 347-350).

Jude is expressing the view that how you teach depends on the content and then he talks about the 'group in front of you' which can be interpreted as him seeing that this is a matter of intersubjectivity. He then says that the group could not 'do' that. This can be seen to be ambiguous. First, it might be interpreted that he talks in terms of 'doing' rather than learning. Second, he is talking about teaching games, not teaching children through games or even teaching children to develop character through games.

This expression of the students as homogenous, was also expressed in the levels they had attained:

> "………progress what I saw that day was…a group of kids who had never hurdled…at the end of the lesson all had an understanding how…and some able to display it…I think within the 40 minutes...in a nutshell…went from not knowing anything about it to understanding what it is all about" (Dylan 2: 142-144).

Dylan is saying that none of the children had hurdled before. Then he says that they 'all' had an understanding. Both statements suggest at that moment, he sees the class as being comprised of a homogenous group of children:

> "I have got them tomorrow. Mmm……yeah...I was really proud of their progress...not just the way that they had become good at working together...but their actual floor gymnastics was …was a delight to watch. From really rusty beginnings two three weeks ago *(DJ laughs)*…they could not even jump...but now yeah it is really great …they are really thinking about posture and timing and...yeah it is good...I do feel proud……..(Dylan 1: 96-100).

A theme of this research is that often the participants spoke in terms of competence being revealed rather than developed (see chapter 8 for more details). Here, Dylan says that he was proud of the progress that the children 'made in working together'. It is also worth noting that this is one of the few occasions where he specifically acknowledges that the aim of the subject is competence in gymnastics and also in social aspects. Having said that, he does not make any attempt to differentiate. This could be because he did not look for differences at the time because his attention was directed elsewhere. It might also be that at some level, he does not see that this is important enough for him to be able to do it. It might also be that in the context he is working in, there is no expectation that this would be the case.

In the second interview, Jude talked about his classes in a more differentiated manner:

> "…so…just because they are in the top 5 kids in the group...physically…does not mean they understand it as much as someone who is in a bottom group…so that is something I might do differently next time...Umm how you do that...is a difficult one...might be a question or re-grouping them or maybe perhaps...posing the same question to each group" (Jude 2: 160-163).

In this extract Jude talks about differentiating between children in terms of their physical competence. He then says that those children might not understand as well as others in a bottom group. It could be that he does not see that children can express their understanding by doing. It might be that he is applying O'Loughlin's (2006) 'discursive consciousness' to this situation. He assumes that understanding has to be expressed in terms of propositional knowledge.

There were occasions where the participants spoke about the children in a much more differentiated manner. An example of this is when Darcie is talking about children seeing their grades:

> "…in terms of there will be kids who are looking at the report card to see what score they got…and there will be others who totally…do...not notice it" (Darcie 3: 463-464).

In this, there is an explicit acknowledgement that children will react differently which is not consistent with the way she spoke about the children when she talked about children's reactions to the athletics award scheme that the department employs:

> "…and there are other groups that I know...that just would go down like a lead balloon basically and they would just be disengaged and it is interesting why it works with that group and not with another group..." (Darcie 2: 312-314).

In this response Darcie makes it clear that she is expecting different classes to react differently. However, she is talking in terms of 'the group' and so at that moment she is adopting a much more homogenous perspective. Similarly, Jude when reflecting on how he approaches planning for lessons says,

> "You certainly don't want to be doing the same thing with all your students… "
> (Jude 1: 344- 345).

In the final phase of the field work, Dylan is talking about how important it is for the children to be aware of the learning journey that they are on. He describes this in terms of individual difference:

> "…….each kid will have something different that they could improve...so you can't just talk to the class about making the Fosbury flop better you need to do this…you watch each kid…you'd identify which part of the skill is lacking…so for some children it could be flicking the feet at the end…you could focus on that…for some it might be not getting their hips over the bar…some people might be facing the wrong way…" (Dylan 3: 134-138).

In this section Dylan describes every aspect as having difference. The way he might talk to the class about the aims of the lesson, that his feedback would be very bespoke and he also describes the different classic errors that children might make. In describing his badminton lesson Jude says that the class were a top ability Year 7 class but then immediately starts to differentiate principally in terms of motivation. He

talks in terms of some children being 'super keen' and then some who required some coaxing:

> "…so it was a top ability PE group...Year 7 boys…a lot of them super keen for PE...they love PE...a couple sort of…quite good at PE but take a bit of coaxing along and encouragement…bit more encouragement..." (Jude 2: 10-12).

Jude then builds on this later in the same response and is quite explicit about difference, saying that 'even' in a top set you 'have a huge spectrum':

> "…even in a top PE group in Year 7 you have a huge spectrum there...you have got kids who might play for Gillingham or for their county all the way down to kids who just kick a ball about with their dad at the park and that is a huge gap there...in one...in 20 kids" (Jude 2: 18-21).

It is worth considering why he says that 'even' in a top set there is difference, as if there is some assumption that a group, like a top set, might comprise of more similar students. Then he specifically acknowledges what the children are bringing to the lesson. Later in the same interview he is talking about his strategies for grouping and questioning. In this, he speaks about the nature of 'understanding' (This is considered more closely in chapter 8). So rather than avoiding or not acknowledging complexity here, he is explicitly espousing difference in terms of children being good at performing and/ or being good at understanding:

> "….so…just because they are in the top 5 kids in the group...physically…does not mean they understand it as much as someone who is in a bottom group…so that is something I might do differently next time...Umm how you do that...is a difficult one...might be a question or re-grouping them or maybe perhaps...posing the same question to each group..." (Jude 2: 160-163).

It is significant that Jude's first consideration is not the way that the children can perform or what they understand but he expresses the difference in a norm referenced manner.

9.5.4 Classes perceived as groups: conclusions

It seems that for the most part, the participants spoke of their classes as if they were comprised of homogenous groups. In terms of intentionality, this can be interpreted as a way to psychologically manage information about the children that they teach. By reducing groups of children to particular categories this can be seen as a way to

deal with the cognitive load. In terms of theories of learning, it points to the idea that implicitly, they are not always conscious of what individual children are doing in their lessons. The idea of the teacher assessment gaze as a form of radar, was developed by Drummond (2000) and is helpful here. This posits a question about what the participants are seeing when the children are in the lesson and engaging with learning tasks.

9.7 Conclusions

In this chapter it is argued that interpretations about the participants' theories of learning can be made from the ways that the participants 'construct' their students. This is because the meaning of a phenomenon, in this case the participants theories of learning, cannot be revealed in any way other than, "…its relationships with its particulars." (Dahlberg, Et al. 2008: 250). By this, we can see that the 'particulars' of how the participants understand learning, is partly to do with how they understand their students.

> "… the idea is that, at least in part, *Dasein* establishes and maintains its relation to itself in and through its relations with others and vice versa. The two issues are ontologically inseparable; to determine one is to determine the other" (Mulhall, 2013: 66)

This is related to Heidegger's idea of 'being with' as an essential element of *Dasein.* For Heidegger, we are social beings always in relation with others (Langdridge, 2007) hence, the centrality of intersubjectivity. This can also be seen in terms of theory having a purpose. In this case, interpreting how the participating teachers construct their students is the object of their theorising and that without children to teach, the requirement for a theory of learning might not be so pressing.

The first thing to say is that, based on the interpretation of their verbal reports, how the participants see their students is subject to nuance even to the point that in some cases, they appeared to hold quite contradictory theories. Lakoff and Johnson (1999) take a deeply embodied perspective to issues of the mind and they argue that Western philosophy tends to assume that an essence of what makes us human is that we are able to be rational. However, as agents in the world they suggest that, "Real human reason is embodied, mostly imaginative and metaphorical, largely

unconscious, and emotionally engaged (Lakoff and Johnson, 1999: 536). Therefore, it is quite possible that we operate in the world in an irrational manner and also that we might not be aware of this. In this research an example of this is when Darcie is theorising about entity and incremental perspective she comes out as a strong advocate for the incremental perspective but when talking about particular children it appears that she is adopting an entity perspective.

There seems to be a tendency for them to ascribe qualities to the students that in many cases, are those that define the student and can be applied in any aspect of the students' life. Some examples are, the transfer of learning and learning and motivation. Given this, the notion of learning always being 'situated' is not a theory that, for the most part, they seem to hold. There is also a question of differences in the focus of the participants' attention in this respect (Merleau-Ponty 1962: 31). Of course, a perception 'awakens' attention so this and can be seen as an example of 'teacher radar', a theme that will be revisited in chapter 10.

There appears to be a tendency to see the student, not as someone on a trajectory of increased competence or knowledge-building, but of someone whose competences are revealed through the schooling process. This relates to the idea that in many cases, implicitly, the students are seen in an entity manner. Ruby, in particular, talks in terms of a strong correlation between being good in PE and personality. While the central purpose of this research is to interpret the participants' theories from their verbal reports, it is legitimate to notice what they do not say. The 'good' student was described in terms of personal attributes and their capacity to perform, but not in their capacity to learn. The privileging of performance over learning can be interpreted as a manifestation of a 'sportisation' discourse. A final conclusion here is that at times the participants framed their perspectives about teaching as a form of 'purposeful occupation' rather than learning.

Chapter 9 – Summary of findings

		The 'good' student	Motivation	Entity and incremental perspectives	Classes viewed, principally, as homogenous groups
Dylan	Espoused	Learn to learn by themselves; needs less help; confident; polite; brings kit; good all-rounder; helps at clubs; fitness 'is there'.	Children enjoy being with me; his character helps; grades help children 'see' progress;	Setting Year 7 children; defines children by ability; more able 'have' life skills already;	John's groups more socially aware; all members of the class have similar predispositions'; class made progress; he does not differentiate progress.
	Implicit	Independent and possibly low maintenance; eclectic perspective on this.	He sees as this being about relationships;	Entity perspective; learning can be finished;	Does not differentiate between children; no expectation differentiation will be done; he may not feel it is important;
Ruby	espoused	Only draws on notion of independence when talking about aims of the subject; leadership skills; extrovert; happy; passionate for sport; keen to please the teacher;	Eager to please teacher; children need to be inspired; you teach the lesson objective; get them moving; don't need motivating in maths; you have to get them going; they have got to be active; kids like to see the grade; lack of motivation to be expected; some children become lazy; younger children love PE	It is about finding the activity that you will be good at; curriculum as a 'buffet'; personality is key; developing in a range of ways;	
	Implicit	Described in terms of doing;	The objective has become the point? (Learn the lesson objective); activity as learning?; implicit subject hegemony?;	Competence as a match between person and activity; competence will be revealed?; curriculum is there a trade-off between variety of activities and/or developing competence;	
Darcie	Espoused	Just gets on with it; children creative when teacher withdraws;	Motivation can be 'given'; competition is motivating; sick note culture; lack of engagement is due to lack of confidence;	She is surprised by students who 'step forward'; problems of fixed mind set; dealing with new situations; positive reinforcement; fixed end point; children can be held back by their mindset;	This group as independent learners; giving leeway to group; strategy works with whole class; some children not worried
	Implicit	Low maintenance; could teacher	Motivation as transmission; motivation to do task or to learn from it; she expresses a lack of agency?; it might be that increased confidence comes from feeling of achievement.	Expectations; behaviourist theories?;	she differentiates between classes not within classes
Jude	Espoused	Technical ability; character; follows rules; committed to learning;	Children like the staff; once the children know the teacher things work well; competition pushed them forward; children want to be seen in a good light by teacher; winning them over;	Younger children' rough and tumble; new activities -all children on level playing field; 'practical' and 'academic' students; decision making is a 'global' quality; teaching a good lesson affects the whole of PE;	What group are capable of; depends on the activity being taught; starting at the bottom, children can be in top 5 but not understand very well;
	Implicit		He is being inauthentic?; winning or task mastery;	Students defined by their abilities; opens up new fronts for	Teaching games or teaching children'

				acknowledging competence;	

Table 9.1 Summary of findings presented in chapter 9

Chapter 10 – Theories of teaching as a means to interpret personal theories of learning

10.1 Introduction

In the trial for the fieldwork for this research one of the themes that emerged was that although the questions were framed in terms of learning it was evident that in many cases the participants responded more in terms of teaching. This is understandable as it is likely that the participating teachers experienced their professional world as teachers and so their horizon of understanding and framework for interpreting the world (Caputo, 2018) would be as a teacher. The relationship between teaching and learning is not straightforward and has been subject to a good deal of consideration over the years. Loughran (2013) argues that we should see it as complex and it is often conceptualised in one of two ways. First, that teaching is seen as a form of transmission or transaction between the teacher and the learner. This means that there is an assumption that gains in knowledge, ability or skill by the student being taught occurs through an exchange from teacher to learner. To put it another way, that there is some direct correspondence between what is taught and what is learned. Second, that the teacher, in carrying out a number of strategies, stimulates the learner to undertake some form of idiosyncratic sense-making which leads to them expanding on what they already know and can do. In chapter 2 of this thesis, it is argued that in terms of the evolution of learning theory the early theories tend to take the former position whereas in later iterations there are assumptions that the learners' 'contribution' to the process becomes increasingly central.

> "The misunderstanding is about us pretending that there is a correspondence between what is taught and what is learned, even though we have known that this is not the case right back from our earliest school experiences" (Illeris, 1999: 237).

In this, Illeris maintains that the relationship between what is taught and what is learnt is often presented as a form of correspondence which is a significant claim that has implications for this research. In considering this, Sfard (1998) argues that there are two metaphors which are 'learning as acquisition' and 'learning as participation' and she concludes that both have merit. Swann (2012: 7) reminds us that the activities of

teaching are 'many and varied' and how they are understood by teachers is likely to exist in the manifold. It is also the case that:

> "Teaching is also sometimes construed only in terms of a *conscious* intention to promote learning, but this view would also seem to be unduly restrictive and to disregard what is not known about the significance of unconscious activity in human decision making and action" (Swann, 2012: 7).

This is a very helpful idea as it is a reminder that we are not aware of much of our consciousness a concept that has been used to explain the often-implicit nature of personal theories of learning. Given that, it is axiomatic that the same principles are likely to apply to the participants' theories of teaching.

The field work for this research was carried out between 11th January 2016 and 6th June 2019. What is striking is, that despite the high levels of political intervention that defined educational policy at this time (Garratt and Forrester, 2012), the participants made very few direct references to it. However, it seems safe to say that they would have been affected by the well-established, performative demands of policy as lived in the school (Ball, 2008).

In chapter 2 it was argued that in a phenomenological perspective the person is assumed to exist in the world as a 'single unit of experiencing' (Heidegger, 1962) which is a deeply embodied perspective. In a theory of embodied cognition there is an assumption that to be human is to be in a situation, a context, a world and,

> "…we have a personality, memories and recollections, and plans and anticipations, which seem to come together in a coherent point of view, a centre from which we survey the world" (Varela Et al., 1993: 59).

It follows, then, that the participants in their role as teachers will take a perspective on teaching from which interpretations about their theories of learning can be made. In considering a rationale based in phenomenology Heidegger (1962: 155) felt that *Dasein* finds itself in.. "…what it does, uses, expects…" and so here the project of teaching can be seen as a matter of what the teachers 'do'. In addition, the discourses that the teachers use to describe teaching are a way that their meanings of the world are made intelligible.

There are four themes to the findings in this chapter. The first is that the act of teaching was often, although not exclusively, framed in terms of 'causing' children to learn what was intended by the teacher and so could be seen as being essentially a process of convergence. That is to say that there was an assumption that the outcomes of learning could be predicted and the process 'converged' on a predetermined outcome. Second, in contrast to the first theme, that in many cases, the participants spoke about the process of teaching as one that involved great divergence in both process and also an assumption that outcomes would be deeply heterogenous. The contrast between the first two sections can be seen as an example of nuance that was introduced in chapter 7. The idea that the participants' theories were characterised by many shades of meaning. Third, that in many cases the participants spoke about teaching in terms of helping the children to 'understand' although implicitly this was often framed as a case of competence revealed rather than competence developed. Finally, there was a sense that the participants spoke of their teaching as *causing* learning that could be 'seen' and in many cases this is described in the kind of realist way that is usually associated with the natural sciences. By way of contrast, Drummond (1994) and Swann (2012) suggest that teachers can observe what children do, say and produce in lessons and then learning is interpreted from that.

10.2 How the relationship between teaching and learning was conceptualised
10.2.1 Introduction
Teaching and learning are often bracketed together although it has been established in this thesis that the relationship between teaching and learning is complex. For example it might be that the act of teaching can be seen as a form of performance but it might be assumed that it only has merit if it enables others to learn. In the same way a comedian can perform material, but their performance needs to be judged in respect of the extent to which the audience found it humorous. It is not enough to assume that because a teacher is teaching that there will be learning taking place. It is not proposed to examine pedagogy in this chapter as it was not something that the participants mentioned but in contemplating recommendations from this research a consideration of pedagogy has much to offer, not least as Loughran (2013) argues that a function of pedagogy is centred on the relationship between teaching and learning.

In this section it is argued that in many cases the participants spoke in terms of what they did 'causing' a particular outcome. They also drew on the idea of 'seeing' things such as increased confidence and thinking, which could also be understood as aspects that are more to do with judgement or interpretation.

10.2.2 Teaching is conceptualised as a form of transmission

The idea of teaching being envisaged as a process of transmission is well established and was evident in the interpretations in this study. It must be stressed at this point that this perspective tended to be more to the implicit side of their consciousness although this is another perspective that was subject to considerable nuance. Ruby is considering what she does with children in a new school year and says,

> "Well .. I have set of key words...that we take to every single sport we do so they are kind of drilled …we drill those into the kids quite early on…so they have accuracy, consistency, control and fluency and we use those words for the basis of our assessment, peer assessment, self-assessment..." (Darcie 1: 113-115).

The notion of 'drilling into' the children can be taken as an example of an assumption that there is some kind of transmission and an assumption that the children will learn what was intended. Similarly, Dylan is reflecting on the processes he likes to undertake:

> "So, I always trying to give them a picture of where they are going…whether it be gymnastics or rugby or whatever..." (Dylan 3: 225-227).

Dylan, in describing his process, talks about 'giving' the children an idea of the direction of their learning. This is notable for two reasons. First, the idea that learning is a journey of some kind as he is saying that this involves the children going somewhere. It is possible to see this 'picture' as a kind of roadmap with learning being a process of moving from place to place, hence, learning is seen to be about the learner moving. Second, he talks about this as something he can 'give them'. This 'picture' is not seen as something the children develop for themselves but something the teacher can give them and this can be read as a matter of transmission.

Ruby is asked if she feels her role as a teacher changes during the school year:

> "...I can only really talk about my year 7 group at the moment...any girls...I teach, it is usually girls as we are mainly single sex classes...until the exam course starts…..you set the rules...you set the boundaries and you set how you want your lessons in September...and then throughout the year…I would not say so much my role...but you can see a difference of confidence with the girls from giving them this chance to take ownership and leadership of their class..." (Ruby 2: 58-62).

Ruby talks about setting rules and boundaries and so it can be assumed that she then polices the children for compliance. It can be interpreted that she sees that the act of her setting those rules and boundaries will 'cause' the desired effect. Then she talks in terms of the leadership opportunities she gives her classes and says that 'you can see the difference of confidence'. Here, there seems to be an assumption that giving the children a chance to lead has 'caused' this increase in confidence. It should also be noted that Ruby talks in terms of 'seeing' an increase in confidence.

Jude had mentioned that life skills are an important element of PE lessons. In elaborating on this he says,

> "…so I think communication as a life skill in general whether that is through your actions through your words I think is...is something that is really important that we teach the students it's something we can do quite well in PE uhm...other life skills...could be organisation- you gotta bring your kit you gotta have it packed...packed in your bag you gotta be on time...there's things like punctuality things like that are...are important" (Jude 1: 100-104).

Here Jude defines what he means by some 'life skills' and also says that 'it is really important that we teach students' which suggests that he sees the acquisition of life skills as one of transfer. In saying 'we teach' rather than 'they learn' it may be that he is assuming that teaching has some kind of privilege. He then builds on this and says,

> "…really important lessons they have got to learn...and you know when they take those skills into the outside world..." (Jude 1: 109-110).

In this the focus has switched from teaching to learning as he talks in terms of 'lessons they have got to learn'. This can be understood as a form of transfer as it is this precise thing that he feels the children have to learn. In the second stage of field work Jude was reflecting on his lesson which was the Year 7 badminton lesson:

> "I mean when you are doing badminton it is really important that you differentiate your resource like that...because it makes such a difference…the amount of times I have seen a student with a full-size racket and they just cannot serve they cannot hit it and you think what is going on here? And then you give them a smaller racket and immediately...no problem every time every time they are hitting it all the time..." (Jude 2: 73-77).

This time Jude is talking about making an adaptation when he teaches, in this case giving children a smaller badminton racket and then he talks in terms of that 'causing' the children to be hitting it all the time. In the first place he clearly sees that making that adaptation 'causes' the change and also he then expresses this in terms of 'all the time' which can be taken as an unqualified claim for the success of that strategy. In the final stage of the field work Jude is reflecting on the factors he takes into

consideration when he plans lessons and says that one of his aims is to do with extending his students thinking:

> "...so you don't play to the full rules but you play...and you condition the game so it works to what your goal for the lesson is...so for example if I am trying to work on rucks...then...I might say ok...5 points for a try...but every time your team creates and defends a successful ruck you get 2 points..." (Jude 3: 342-345).

There are a number of things to note here. First, in saying 'if I am trying to work on rucks', Jude appears to be emphasising what he is doing in terms of teaching rather than what the children might be doing in terms of learning. Second, he talks about conditioning games which is a well-established strategy in PE teaching (Li and Cruz, 2008: Machado, et al., 2019). He says that this 'works' with some certainty, which can be interpreted as Jude, implicitly, seeing that there is a causal connection between his strategy and what is learned.

Dylan is reflecting on barriers to learning and talks about some children in the classes he teaches, lacking confidence and self-belief. He then says that they need to be taught in the 'correct way' (Dylan 1: 170). He says that this involves the teacher praising the children and he talks about there being a 'correct' way to teach. He explains that this involves the teacher 'filling the children with confidence':

> "Just filled with confidence…" (Dylan 1: 172).

This is significant for two reasons. First, he is taking about 'confidence' as if it is a tangible quality. Second, he talks in terms of confidence as something that can be transmitted when he says 'filled' with confidence. Later in the same interview Dylan talks about the importance of teacher demeanour and key ideas that have informed his teaching identity:

> "If you look relaxed that can rub off on the kids...so I did not make a conscious decision to "I am going to be more relaxed now"...I don't think you can do that but...I did start thinking about it...a lot more" (Dylan 1: 282-284).

He is saying that the teacher can pass on a state of relaxation and that this 'rubs off' on the children which can be understood as him seeing this relationship as a form of transmission. The teacher is relaxed and therefore the children are going to be the same. This can be read as a moment where Dylan assumes that mindset can be transmitted from teacher to student. In the third stage of the field work Dylan is reflecting on the children learning to accept defeat gracefully as aim of PE:

> "And I think we can teach that quite fully through PE...as well as the technical tactical coaching aspect" (Dylan 3: 13-14).

He expresses this in terms of a high congruence between what is taught and what the children learn. He even says that this can be taught 'quite fully' implying a comprehensive understanding is imparted. In the third phase of the field work Dylan is reflecting on what he enjoys about the job and talks about wanting to help all children feel that they can be included:

> "Seeing kids that maybe don't feel that they can access PE or sport…kids that 'Oh I don't like PE...it is not for me' I like to make them...realise that…it can be fun...it is fun…" (Dylan 3: 77-79).

In this, Dylan portrays an attitude change in the children and describes this as a transmission when he says, 'I like to make them realise that'. So, he is saying that developing a feeling that PE is for them is something he can 'make' children realise and implicitly he is saying that he has some level of control over this.

In the first stage of the field work Jude is considering the aims of the subject. He starts to talk about personal qualities:

> "…we don't want to breed people who are happy at losing but equally losing is part of sport and you have got to be able to take that on the chin accept it understand where you've gone wrong what your weaknesses are and then make a plan to improve it...yeah so we have got to teach them to be able to lose..." (Jude 1: 119-122).

The first point to note here is that Jude appears to be privileging 'sport' and perhaps this can be considered as an example of him employing a 'sportisation' discourse. Secondly, he says, 'we' don't want to 'breed' people. In this, 'we' can be taken to be the teachers in the department or possibly in education in general. A literal translation of 'breed' would be to 'give birth to' or to 'produce' which can be taken as a form of causal assumption between what teachers do and, in this case, what the children might become in his mind. He is concerned that we don't want children who are happy to lose and follows that with:

> "...I have seen it over the course of a year where I have taught a group of students...that they have definitely improved and learnt that skill" (Jude 1: 122-123).

It is significant that he sees this personal development as a skill. Also, that it is clear that he is assuming a causal link between what he intends to teach in this respect and what the children learn. Still on the line of learning as a form of transmission, Darcie is asked to talk about strategies that she uses to promote learning:

> "Basically, independent learning. Giving them the criteria, the framework to work around. Based on whatever the activity is that I am looking at...and…stepping back and letting

them take the lead. Obviously, there is a lot of ground work that goes into that beforehand. Because…they need to have some basis of which to pull from there...because sometimes just throwing them in at the deep end...they can…you know...they don't engage with it as much..." (Darcie 1: 155-160).

Here, Darcie is advocating open ended tasks that children can do independently but suggests that this requires preparation and refers to this as 'groundwork'. Groundwork would indicate some preliminary or basic preparation of a particular kind. What is not so clear is who has done this groundwork. Does she see this as something she did to the children or was it about her giving them the chance to build the necessary capacities to learn independently? In the third interview Darcie has spoken about 'drawing things out of the students' and she is asked to talk more about how she understands this:

"I suppose I now...I would maybe...think about it now in terms of...my questioning...and...or how I have structured what I have done…is it because…the knowledge and understanding is not there because of what I have delivered…or it is because...we are still at a point where...they have not quite...it hasn't filtered down yet…"(Darcie 3: 480-483).

At this moment Darcie is asking herself what might have gone wrong if the children's capabilities are not what was expected. The first point to make is that she wonders if she has 'caused' this because 'of what she has delivered' which can be interpreted as her seeing teaching and learning as a form of transmission which in this case has been disrupted. She then describes learning as a process of 'filtering down' and because there has been a disruption, she says it has not filtered down. The use of 'filter' is interesting and might imply that she sees learning involving a 'removing of impurities' which could be understood as less appropriate responses. In the second interview Darcie reflects on taking over a class where you might be a teacher that the children do not yet know:

"…if you have not had them from when they are younger...because what I try and to do now with the Year 7s that I teach is I try and instil that in them quite early..." (Darcie 2: 317-319).

In this, she is talking in terms of 'instilling' the capacity to learn independently. To 'instil' suggests that she sees the process of preparing the children to learn independently as one where she is establishing an attitude or a way of learning 'into' the children. This can be interpreted as a form of transmission. It is also worth noting that she is advocating that the children learn to learn independently by 'being taught'. It feels as if there might be parallels with the old teaching joke about having a lecture

on teaching styles. Later in the same interview she is talking about the assessment structures and uses the example of a particular child:

> "…so if he was doing it most of the time in terms of 'O' levels…he would be a 4A, if it was a bit of the time it would be a 4C and so on…and we were ingraining that, in the kids" (Darcie 2: 366-368).

In this section she talks in terms of 'ingraining' an appreciation of that system of assessment in the children. The use of the term 'ingrain' would suggest that she sees the process of children learning as one of implanting a habit or a way of thinking which can also be interpreted as a form of transmission.

What is clear is that at times the participants drew on a discourse of teaching as transmission. This occurred principally as an implicit theory and is significant in interpreting the participants' theories of learning. In an interpretive phenomenological approach discourse is the way that the meaning of the world is manifested for *Dasien* (Heidegger, 1962). Therefore, this points to the participants seeing that, to an extent, what can be learned can be passed between the teacher and the student a notion that Freire (1970) refers to as education as 'banking'.

10.2.3 Teaching and learning are seen to exist in an 'open ended' relationship

In Chapter 7 it was argued that the participants' theories of learning demonstrated considerable nuance and that this is a theme that permeates all the findings. In the previous section (10.2.2) it was claimed that there were a number of instances where it seemed that the participants' theories of teaching could be interpreted as them seeing a high level of congruence between what was taught and what was learned. At the same time there were moments when a quite different position was articulated and this can be read as an example of nuance. An additional point which will be developed in this section is that of the way that the participants sometimes spoke about the lesson as if it had a value in its own right, almost as a performance that had merit regardless of how it might have affected the students. Indeed, in some sections the students are absent from the participants' immediate awareness.

In the first interview Jude is reflecting on how he encourages the students to 'go deeper' in their learning and talks about using open ended tasks:

> "So it's giving them little tit bits of information things they can work with and then saying, right, it's down to you now. Have a think about this, this is your end goal

whether it's your routine or to win the game or whatever can you come up with some ideas for yourself?" (Jude 1: 186-189)

Ruby is talking in terms of her values towards teaching and says,

"...so I find it important that students have to think for themselves..." (Ruby 1: 31).

This is a perspective that is also espoused by Dylan:

"...but where you can...I am a big fan of the kids...just trying to work it out for themselves..." (Dylan 1: 59).

In considering his hurdles lesson he says,

"Yeah I like it…letting them loose…I like letting them loose…standing back…you can learn a lot about the kids…just watching..." (Dylan 2: 76-77).

This section offers particular insights. First, there is the heuristic perspective of the children being 'let loose'. Second, it should be noted that he says 'just watching'. It might be that he means 'just' as in doing that activity of watching on its own or it might be that implicitly he sees that as a lower status teaching action. Also, in the second interview Dylan is reflecting on his hurdles lesson and says,

"…chance for them to use their own brains…rather than be directed the whole time" (Dylan 2: 89-90).

This suggests that Dylan is adopting a teaching approach that invites divergence although he does not frame his response in terms of learning. He is then asked if the Year 8 class he had spoken about would be amenable to such an approach:

"No……they are still glazed most of the time…head butting the floor...eating the fake grass...so it is rarely that I do that with them..." (Dylan 2: 92-93).

It must be noted that Dylan is not being serious in this. However, a tentative interpretation might be that he does not see any particular overarching purpose to learning in a more open way. He is then asked whether he feels that presenting more open tasks over a period of time would enable the children to get better at the process:

"Yeah…yeah I would give it a go…always give it a go…yeah...have tried it before and…did it work but they……they were not there that day…" (Dylan 2: 98-99).

This would indicate that he does not have any particular espoused position on the best way to teach and does not have any particular position on open ended teaching as a way to promote learning.

In the first interview Ruby draws on a divergent discourse to describe her practice and in particular, she talks in terms of the children 'exploring':

> "So for example at the moment I am on badminton. So.....I have let them explore…I have let them make up their own games..." (Ruby 1: 15-16).

Implicitly, Ruby is describing her practice as being divergent. She says that she 'lets' the children explore which suggests that she feels she has control and that when the children are exploring this is a 'gift' that she gives to them. This can be read as an instance of the children being empowered on the surface but implicitly, the teacher still feels that he/she is in control.

In the first interview, Dylan has endorsed 'exploring' as a positive teaching strategy. He is asked if he finds this to go against a culture in education where much is subject to prediction and control:

> "Yeah,..yeah,..I do…I am trying to think how I do it if……I don't think I change if I am being observed….I like the kids to have a bit of freedom. Again it depends on the class. If they were a handful then you don't give them the leash..." (Dylan 1: 62-64).

What is noticeable is that Dylan talks about teaching in an open manner but not necessarily about how he sees that in relation to what the children might be learning. He even says that 'you don't give them the leash' which suggests that in exerting 'high control', he believes that the teacher has the class on a leash. Employing a more open-ended approach would presumably then, be seen as removing the leash. What Dylan does not do is to frame this explicitly in terms of the benefits to the children's learning. It is significant that in considering this, he refers to teacher performance management and says that he would use the same strategy even in such a high-stakes situation. This suggests that he feels confident and secure in this mode of teaching. The metaphor of a leash is similar to Darcie's description of her evolving professional development. In reflecting on how she has progressed, she says,

> "…and as I became more comfortable in my own teaching style...I decide to let go of the reins a little bit…" (Darcie 2: 376-377).

Darcie is articulating a perspective, that in her development, a key aspect has been that she seeks to shift the power from herself to the students. This is significant because it points to her recognising the importance of student agency and structuring her teaching in an open manner.

In the first interview Darcie says that she feels that social learning is a major part of the aims of the subject:

> "Usually a lot of...basically…group work...where…giving a set of guidelines so they will interpret those differently as such…so each group will…come up with a different way…a different perspective depending on how they view the activity ..how they see it ..and

> basically the outcomes I hope they will achieve…..through a process of their own trial and error…" (Darcie 1: 13-16).

Darcie is saying that a good way to promote social learning is group work. It should be noted that Darcie does not appear to distinguish between 'learning socially' or learning to 'socialise'. She then moves on to say that she welcomes the way that children often have different interpretations and speaks in terms of encouraging a heuristic approach to learning. In describing her lesson, Darcie also talks about using a problem-based approach and then says,

> "…and they kind of…without realising, just 'step up'...and take it upon themselves to kind of...try, take a bit of control over what is happening…" (Darcie 2: 81-82).

At this point she is saying that this approach can develop increased student agency and that this occurs at an implicit level. Ruby also takes this position of implicit learning as when asked about what she looks for when she is attempting to identify progress in the children's capacity to communicate says,

> "…so they are learning to understand...without realising it…" (Ruby 3: 104).

When asked to describe the principal upon which she bases her practice, Darcie says,

> "I would say that I would go for the model whereby…gauging their knowledge and understanding through questioning…of what they have done previously…and then I would generally just go with the same model I use here which is…introduce the skill...basically getting them to go off and see what they can do with it and then give them the correct teaching points…" (Darcie 2: 295-298).

Here, Darcie is saying that she leads with assessment. She talks about doing this through questioning, which can be interpreted as her privileging discursive consciousness. She then presents her teaching as drawing on a divergent approach when she says she would 'see what they can do with it'. 'What they can do with it' can be interpreted that the children are being invited to make what they want of the task and so at this point Darcie is clearly describing her teaching approach as being heuristic. The idea that the learner first 'has a go' was found to have merit by Sears (2006). In research with ICT students, Sears concluded that such an approach can be helpful because when the learner is shown the 'canonical solution' it makes more sense if they already have an insight into the problems presented by the learning task.

In the third interview she is asked about the power of the teacher standing back to observe what the children are doing when they are engaged on a task which was something she had spoken about in the previous interviews:

> "......I think that still is a good approach because then...you can see the gaps in knowledge or how the lesson develops because...it is just interesting to sit back and see how they approach it..." (Darcie 3: 18-20).

It should be noted that in this extract Darcie says, 'the lesson develops' which suggests that at some level of consciousness she sees that the 'lesson' might have some value in its own right. This idea of the lesson being a thing that can exist almost independently of the children also occurs with Jude. As he spoke about his lesson (Year 7 Badminton), Jude talks about how children might learn about tactics:

> "…and then as they...the lessons progress...over the next few weeks..." (Jude 2: 285).

It seems as if he was going to talk about the progress the children were making but then changes focus and talks about the lesson progressing. This occurs again in the third interview where he is reflecting on the place of questions:

> "I think there should also be……..elements of…...planned questions…which sort of help with the planning and the theme and the progress of the lesson" (Jude 3: 178-179).

It seems that at an implicit level of consciousness Jude sees the 'performance' of teaching the lesson has a value in its own right. This can be seen as a perspective for Ruby who in reflecting on her long jump lesson says,

> "…so, as a teacher I could see……the resources that I had given...and using the more able as leaders...it gelled and worked really well…" (Ruby 2: 12-13).

The idea that the lesson 'gelled' sounds as if she feels that there was an element of performance. This perspective also emerges when she is reflecting on her long jump lesson which was observed as part of her performance management. Ruby says that the observing teacher thought the lesson was very good. She is then asked what the observer particularly liked:

> "Well of course the rapport the teacher had with the children the ownership the children had…all the tick boxes…all the tick boxes happened…" (Ruby 2: 107-108).

All interpretations are in the end just that. In this case, the first section referring to the rapport between the teacher and the children was stated in a somewhat ironic tone. It is believed that good 'rapport' was mentioned in the report, however. Possibly the more significant section here is where Ruby says that 'all the tick boxes happened'. This is taken to be her feeling that to teach, especially when being observed, is a performance that has key performance indicators and that in this case, she demonstrated them to her performance manager's satisfaction. This can also be interpreted as Ruby feeling that she lacks agency over her professional practice.

In a similar way Ruby, when asked about what she would see as the principle elements of good teaching says,

> "…good knowledge of the subject…..progress from the lesson objective you are teaching...yeah progression from what you are teaching is obviously huge isn't it...because…how are they learning…if they are not going to be progressing...so your lesson objective...knowledge…give the children the skill you want them to learn...by the end of the lesson they have learnt that skill...ready to move on the next lesson…" (Ruby 3: 70-74).

In this response Ruby conveys the impression that there is progress 'from the lesson objective'. This appears to suggest that the children are absent or at the periphery of her consciousness. This seems to be another case of the lesson being seen to have a value in its own right. In the next section she talks about 'how they are learning' so the children are brought in at this point. It is also significant that she talks in terms of learning being finished when she says, 'by the end of the lesson they have learnt that skill'.

Jude is talking about how he seeks to lead his department in terms of how he likes them to use set schemes of work:

> "I would much prefer them to say right you're teaching a badminton lesson, the focus of the lesson is the overhead clear shot, you know...you go and put your own personal spin on that I trust you...you've got the subject knowledge and the pedagogical knowledge to be able to go on and deliver a really good lesson..." (Jude 1: 379-382).

In considering his leadership he is encouraging the teachers to take ownership of what they are teaching which can be interpreted as a divergent perspective.

In this section it has been argued that in contrast to section 10.2 where often the participants were talking about teaching being envisaged as a form of transmission, there were other times when they spoke about learning in a much more divergent manner and open ended, manner and this permeated many aspects of their practice. This can be seen as an example of nuance where they are holding different types of theory about similar things at the same time. It can also be seen as an example of the differences between theories held as espoused theories and theories being held implicitly that was introduced in chapter 7.

In this chapter the case will be made that even though the questions in the field work were based on learning, the participants would often couch their perspectives in terms of teaching. In phenomenological terms this can be read as 'facticity' which is the idea that we are 'thrown into the world' and that inevitably will place limits on our ways of

being. Therefore, it might be that the teachers are 'thrown into' the professional environment and their way of experiencing that is primarily through taking on the role and identity of a teacher. It makes sense that they would 'read' the situation from this perspective as their principal way of experiencing the world is through their enacting that role. What seems clear is that in many instances they saw the relationship between teaching and learning as one of transmission. It should be noted that this theory appeared to be held principally as an implicit theory. This research is about interpreting the teachers' theories of learning and not explaining them. However, it should be borne in mind that there is a strong theme in scholarship that promotes the idea that since the Educational Reform Act (1988) education has been situated in a market place and neo-liberal ideologies have informed policy. Neo-liberalism is understood as an ideology that the government no matter how benign restricts individual agency. Instead, there is an assumption that people should make rational choices in their own interest (Heywood, 1988). An example of this is the introduction of parental choice of schools that came with the ERA (1988). It is widely claimed that and this has resulted in an intensification of labour (Wrigley, 2013); increases in managerialism (Klikauer, 2015); demands for 'visible' accountability (Gorard, 2010) all of which have increased the performative demands on teachers (Ball, 2003; 2008). In such a milieu it is possible that the need to show value for money has contributed to an assumption that 'transfer' is an efficient way to understand learning.

10.3 Conceptions of teaching, learning and understanding
10.3.1 Introduction
It is clear that ostensibly the purpose of teaching is to help children learn and it was noticeable that for the most part, especially in terms of their espoused theories, the purposes of the process were often couched in terms of some kind of trajectory or in terms of gains in different ways. In particular, the notion of 'understanding' and 'progress' were deeply embedded in the participants' discourse.

This sub section focuses on the idea that in many cases, as might be expected, the participants spoke about teaching as a means to develop competence. However, there are also occasions when, implicitly, they were talking more in terms of revealing competence. This should be seen alongside the notion of children being constructed as fixed that was developed in chapter 9.

10.3.2 Conceptions of teaching and understanding: interpretations

It should not be assumed that the idea of the teaching being about revealing competence was a strong conception for all the participants all of the time. In particular, Dylan's dominant espoused theory was one of developing competence 'in some respect'. In the first interview he is asked what he looks for when he is attempting to identify learning:

> "…well, looking for learning?…you want to see progress...you want to see them doing something they could not do at the beginning…you want to see them engaged…happy…smiling…….on task…" (Dylan 1: 46-48).

Dylan responds to the question of what he looks for in learning in an unequivocal manner. He says he is looking for progress 'in' some respect. It is clear that what he considers to be worthy of his notice is wide ranging. In reflecting on the issues, he was having with a Year 7 class, Dylan is asked how he feels the class is getting on. It should be born in mind that this interview was in January so he had already taught them for a term:

> "I have got them tomorrow. Mmm……yeah…I was really proud of their progress...not just the way that they had become good at working together...but their actual floor gymnastics was …was a delight to watch. From really rusty beginnings two three weeks ago *(DJ laughs)*…they could not even jump...but now yeah it is really great…they are really thinking about posture and timing and...yeah it is good...I do feel proud…….." (Dylan 1: 96-100).

He phrases his reply in terms of progress in learning together and also the technical demands of the lesson when he says 'they had become good'. Dylan uses the term, 'understanding,' a good deal. For example, in his consideration of the hurdles lesson he is asked what he looks for when he is determining progress:

> "………progress what I saw that day was…a group of kids who had never hurdled…at the end of the lesson all had an understanding how…and some able to display it…I think within the 40 minutes...in a nutshell…went from not knowing anything about it to understanding what it is all about..." (Dylan 2: 142-144).

In addressing the question, Dylan talks in terms of understanding as 'all having an understanding' and some being able to 'display it'. This can be interpreted as him feeling that some children had developed insight into hurdling but it was not visible from the outside and so this was a leap of faith for Dylan. In addition, a 'display' of an understanding can be taken as a form of competence revealed. The section where he says that they 'went from not knowing anything about it to understanding what it is all about' is also significant. Implicitly he appears to be saying that in terms of hurdling, the children arrived at the lesson *tabula rasa*. Second, that learning has 'finished' in

some way although this is ambiguous. He might be saying that this was as far as he would expect those children to go in the lesson or it can be read as an example of hyperbole. The final point is that he presents their competence in terms of understanding rather than performance. The question then, is the extent to which he might see competence in procedural knowledge as demonstrating understanding.

In the third interview Dylan is asked how he sees the place of understanding in learning:

> "If they don't understand they are not going to be able to progress...it is as simple as that..." (Dylan 3: 96).

Dylan appears to be saying that 'progress' and the state of understanding are related but that progress is privileged. It could be that he sees 'progress' as a focus in its own right or it might be that there is an assumption that he means progress in children's mastery of particular content. He seems to be saying that 'progress' is contingent on understanding and this represents a slight difference to his talk in the first interview which was more about progress *in* something:

> "...you want to see them doing something that they could not do at the beginning..." (Dylan 1: 46-47).

Then he is asked how he feels children develop an improved understanding:

> "…effective teaching breaking things down chunking things up…..umm…not expecting them to be able to do the Fosbury flop[ii] on first attempt…that is a skill that needs to be broken down…and understanding why we are going from here to here..." (Dylan 3: 102-104).

Dylan's attention is an example of a 'drift' in his consciousness to teaching. First, this can be taken as an example of an assumption about teaching 'causing' learning. He is saying that to develop their understanding, children require a particular form of teaching. He is then saying that the skill needs to be 'broken down'. By this, he means that the various sub-routines might be identified and even practiced separately which again, would be a more teacherly perspective. Then he talks about understanding 'why we are going from here to here'. There is a sense that implicitly he is saying that 'understanding' precedes competence rather that insight is gained through the process. However, as this is high jump and should be viewed as principally a concern with procedural knowledge, then that understanding might be beyond articulation and could be revealed in context.

In the first interview Jude is asked what he sees as indicators of learning:

> "Ummm…progress (laughs)...I think…you want…you are looking for physical progress...and you are looking for emotional progress...you are looking for…progress with their understanding...so these are all things that you are looking for...and how you see that…is…obviously…you can see physical progress. Maybe the success rate of what particular skill they are performing is improving, maybe they are working better with their team...maybe when you're asking them about tactics in that sport they can give you better answers..." (Jude 1: 128-133).

Jude's first thought when considering this is progress and he defines this in the context of the 'physical' and the 'emotional'. Then he says he is looking for improved understanding. This would suggest that implicitly, he sees that physical progress can occur without understanding or understanding in a particular form. This can be interpreted as him assuming that 'understanding' requires discursive consciousness. Later in the same interview he shares what he takes into consideration when planning lessons. As part of his reply he says,

> "With what I'm doing am I deepening thinking in learners?" (Jude 1: 165).

It should be noted that there is an implicit assumption of teaching causing learning at this point. He is then asked how deeper thinking might be manifested in his lessons. He says that it is about going beyond the 'surface' and that this involves the children coming up with ideas for themselves. He then gives an example:

> "…if the extension is to maybe come up with ideas for themselves being imaginative, being inventive, so I might give them a set of ideas and I say, right okay, I want you to now go away, in groups, and build your own routine..." (Jude 1: 180-182).

Later he talks about the possibilities afforded by Bloom's taxonomy and refers to possibilities afforded by the use of higher order questions. This would suggest that he is assuming that 'what' is learned in PE can be seen as propositional knowledge. He also then talks about the importance of the teacher checking what they have been teaching the students:

> "There's other times when you might want to pose a question which is a higher order question where you really want them to…to…to…deepen their thinking in the lesson..." (Jude 1: 199-200).

At this point Jude appears to rely on the children articulating their understanding and he rules out the possibility of observing them and interpreting their understanding from the way they approach physical tasks. This perspective of a focus on 'discursive consciousness' is also a feature of Darcie's response to a question in the second interview about general principles that she uses to help children learn:

> "Ahmmmmm I would say that I would go for the model whereby…gauging their knowledge and understanding through questioning…of what they have done previously…" (Darcie 2: 295-296).

As was the case with Jude, Darcie appears to be focussing on what the children can articulate about what they know. She talks of doing this through questioning and does not appear to consider the possibility that the children might hold theories that exist to the periphery their consciousness. In the third interview Jude is asked if there are any particular strategies that he uses to help children learn. At that moment he says,

> "…so I think the big area that you have to push in PE is that area of learning kinaesthetically …and trying things out…and…such as…seeing how things feel..." (Jude 3: 291-292).

This can be read as a significant nuance as in this section his focus is on the kinaesthetic which represents a much more embodied perspective. When juxtaposed with his perspectives about the emphasis on teacher questions and privileging a discursive consciousness that was reported in the previous section, this can be read as a deeply nuanced personal theory.

In the second interview, Jude is talking about how he checked the children's understanding with a plenary. As part of this he asked the children to imagine what they might say to someone they were teaching about the content they are learning:

> "…so if they can imagine themselves in that coaching situation they tend to…that brings out their understanding a little bit better..." (Jude 2: 125-126).

At this point Jude says that the children, imagining they are in a coaching role, 'brings out the understanding'. This can be interpreted as him implicitly seeing that the act of imagining they are the coach and articulating this is not so much a matter of the children building knowledge through considering the question but one of revealing what they know. This can be read as an instance where the emphasis is on revealing competence rather than helping the children to develop it. In the third interview Jude reflects on what he feels is happening when he asks a good question. He talks about asking questions and giving the children 'think time', a strategy recommended in the assessment for learning literature (Black et al., 2003). He says,

> "…then you ask the questions and the quality of the answers you get is so much better..." (Jude 3: 228-229).

Jude's claim is that the 'quality of the answers you get is so much better' is significant and this can be interpreted in different ways. First, it might be that he sees that a

'quality' answer is one where the child shows great insight into the issues related to the lesson content. Second, it could be that the child responds in a way that enables Jude to get an insight into their construing and then he can use that information to adjust his teaching. In the third interview Jude is asked to rehearse what he sees when he is looking for learning in his lessons. He claims that in PE, there is an assumption that it will make a difference to the children's lives especially in relation to fitness and health. At this point he says,

> "…it is not going to make a huge dent in that but it is giving them the understanding...the knowledge to say…actually...maybe I am not as fit as I should be that...maybe my diet is not as good as it might be..." (Jude 3: 275-277).

Here, he is talking in terms of understanding and knowledge being 'given' which can be read as an instance of teaching as transmission. He is also articulating a perspective that this mode of teaching might enable children to gain insights into themselves.

The notion of competence 'revealed' was also evident in the first interview with Darcie. She is asked what she does in her lessons to foster social aspects of learning which she had identified as a priority for her. She says she uses open ended activities where the children have to create a response. She is asked what she sees as the rationale for this:

> "…basically to see the level of progress and knowledge and understanding of the activity…of what I have got them to do..." (Darcie 1: 22-23).

Her justification can be understood in the manner of an open question where the emphasis is on finding *what* the children know rather than *whether* they know particular things. What is significant are the three things she chooses to mention. She starts off with progress. It must be assumed that she is thinking in terms of classes she knows so she has some point of comparison. Then she talks about 'knowledge' and 'understanding'. This poses the question as to whether she sees that a person can be knowledgeable without understanding? The use of the term might be an example or 'inauthenticity' in the phenomenological sense of taking the world that she inhabits, for granted. What would have been helpful would have been to know what she felt she looks for at that point although a little later in the same interview she is asked what she looks for when she is looking for learning:

> "umm…Communication between...between groups...ahmmm I look for those that are taking the lead I look for those who are shying away because then…I don't want them to fall behind…" (Darcie 1: 97-98).

Here she is saying that her priority is communication, so we might assume that when she spoke about progress, knowledge and understanding she might have been thinking of this in relation to communication. It should also be noted that she talks about her concern being that she does not want children to 'fall behind'. This might be a sign that at some level she has a norm referenced perspective on the children in her class and sees education as a zero-sum game. Later in the first interview she is asked about what she feels are good learning intensions for her classes:

> "I would say that my key words…working towards those as targets understanding them…how they can use them to progress…to...look at self-assessment in terms of where they are at look at other people in the group to see where they are at…or why they might be…….so understanding what they need to do to improve…" (Darcie 1: 259-262).

Darcie responds to this in terms of working towards targets. One way to interpret this is that she is seeing the target as the thing rather than the target as a way to help the children to develop mastery over aspects of the subject content. She also talks about the targets as something to be 'understood'. This might mean that she feels that the child needs to understand the processes to increased mastery or that the target has some value in its own right. It is also significant that similar to her comment about children 'falling behind' she appears to espouse a somewhat norm referenced perspective when she talks in terms of the children looking to see where others are. The final section, where she references the children understanding what they need to do to improve, can be read as an example of being consciously incompetent. This refers to the notion that understanding what it is that is required, even if the learner cannot do it yet, is a positive place to be.

Ruby makes 12 references to understanding in the first interview but in the second one, which was a description of her long jump lesson, she makes just one. This might be read as an example of a particular form of nuance where in interview 1 she is asked to talk about learning in a more abstract manner whereas in interview 2 she is talking about a specific aspect of her practice. That would point to her implicitly not perceiving 'understanding' as such a key aspect of her practice. In the first interview Ruby is asked to imagine she is watching a really good PE lesson and is then to reflect on what she feels she might be seeing:

> "…that is how they are with that teacher…high expectations…differentiation…students are challenged…students progress……students understand their assessment grades…and where they are at and where they can move to…" (Ruby 1: 194-196).

As part of her response Ruby talks in terms of children 'understanding their grades' which can be understood in different ways. It might be that she sees the project of learning in PE and the project of applying the assessment criteria are highly congruent. If this is the case then Ruby assumes that the children 'understanding their grades' is the same as her assuming that the children 'know what they need to do to improve'. In this section it appears that Ruby is talking about competence being revealed, which is a reference to the children understanding the assessment. She also talks about competence being developed as at the end; she refers to the children knowing 'where they can 'move to'. The idea that learning involves the student 'moving' is a metaphor that helps in interpreting Ruby's theories. If the learner 'moves' when they learn then there is a sense that this is about the whole person and that they are relocating to a place of enhanced knowledge. In the final interview Ruby is asked to reflect on how she feels children demonstrate their understanding in PE:

> "……..Their understanding……so well obviously as a teacher…if you have taught something...and the children go away to practice that skill…and practice let's say…..let's say they were practicing the long jump they were starting by taking off from one foot and then bringing in their arms and then landing with two feet...as a teacher you would go round...when they are working in their groups to find out…" (Ruby 3: 34-37).

Ruby appears to be a little hesitant but then says that she would look for aspects of the children's physical performance. She does not rely on their capacity to articulate their understanding, as was the case with Jude, but is focussed on how the children are mastering the movement involved in executing a long jump. Later in the same interview Ruby has spoken about the importance of communication and is asked how she would see progress in this respect:

> "…with each other? Well they are talking to each other when they have been given a skill or a task to learn and they are just learning to understand…the positives and negatives of...not positives and negatives...the word I am looking for is how to improve a task that has been given to them by the teacher...so they are learning to understand...without realising it..." (Ruby 3: 101-104).

She talks in terms of the teacher 'giving' the children a skill or a task and she says they are 'learning to understand'. It is noticeable that the subject-related aspect of the content is absent at this moment. The idea of 'learning to understand' seems significant. It might be that she takes the idea of learning to learn 'something' and there is an assumption that this is directed at a particular aspect of PE content

knowledge. It might be that at some level she sees that learning to understand is a goal in its own right. In which case 'understanding' has become a focus for learning and is not necessarily attached to any aspect of the content of the subject.

10.3.3 Conceptions of learning and understanding: summary

It seems clear that 'understanding' was a key personal theory for all the participants as it was something they came back to many times. Regarding what can be learned, it might be that they tended to think principally in terms of propositional knowledge which might account for their reliance on some form of 'discursive consciousness'. On the basis of the analysis it can be concluded that the participants' theories of learning were nuanced as at times they spoke of 'understanding' in terms of privileging a discursive consciousness while at others they spoke more in terms of understanding as more to do with acquiring tacit knowledge. It felt that, for the most part, they did not tend to differentiate between propositional knowledge and the more procedural knowledge generally associated with PE. This can be seen as something of a category error as at times they seemed to be treating learning in PE as principally a matter of propositional knowledge. Hence the requirement to check the children's understanding by asking them to talk about what they were learning in PE, rather than demonstrate it through movement. Finally, it seemed at times, that 'understanding' was perceived as a phenomenon in its own right and was not necessarily related to understanding anything in particular and in this way the content was missing.

It might be that for all of the participants there was an element of inauthenticity as for the most part, they appeared to take the world as given to them and did not seek to problematise the issues. On the other hand, it must be stressed that a research interview might not be the place that participants would wish to do this.

10.4 Theories of teaching that assume learning is visible and rational.
10.4.1 Introduction

In a time when teaching, especially in the policy discourse, is presented as a matter of prediction and control (Radford, 2008), it is tempting to see that the act of teaching itself may be conceptualised as a rational act. A way to understand rationality is that it involves logic and reason and an extension of this is that it 'does not claim more than the evidence available suggests' Morton (1997: 5). This line of thought has been legitimised in much policy in recent years with the emergence of strong advocacy for

evidence based and evidence informed practice. The idea of 'evidence' for learning is a helpful idea as 'evidence' can be seen to belong to a more positivist paradigm although it should be noted that much of what we understand about learning in education has its roots in the work of twentieth century psychology. With the advent of more embodied theories of cognition, sometimes people come to understand in surprising ways that do not fit within empirical or rationalist explanations of learning. Carr (1994) argues that the weakness of much psychological discourse is that it is

> "… 'held completely captive' by a description of mental or behavioural processes that are identifiable and analysable in 'natural scientific terms', as if they are events in a 'causal relationship' that can be explained somehow with 'laws established on the basis of observation and experiment' (p. 39).

This is very helpful in framing this section as it will be argued that it appears that for the most part the participants theories of learning were at times 'held captive' in this way. In this section terms like learning and progress are used interchangeably and there is a sense that 'progress' has become reified and at some level is seen to have a value in its own right. As part of this Ruby and Dylan appear to assume that the allocation of grades is a helpful part of the process as they are seen as visible markers of progress.

10.4.2 Theories of teaching that assume learning is visible: interpretations
It was noticeable that on many occasions the participants spoke as if they could 'see' learning. Dylan is asked to consider the features of a very good lesson:

> "From the children...in a really good lesson you would see kids understanding why they are doing what they are doing and knowing where what they are doing is going take them..." (Dylan 1: 208-209).

This section is important for three reasons. First, Dylan begins by saying that you would 'see' the children understanding. It is not clear form this, what he means. It might be that he sees children displaying increased competence compared to what he knew they could do before or it might be a feeling he gets when he is observing the children's responses to learning tasks. Second, Dylan then says that the children would understand 'why' they are doing what they are doing which indicates that, for

him, the children would have some level of meta cognition. Third, he talks about the children 'knowing where (this) is going to take them' which can be interpreted as the children knowing the next steps or perhaps some larger, long-term goal. All of this is described in very rational terms. In the same interview Dylan is asked about what he looks for in terms of learning in his lessons. He says that a key 'base level' of this is to do with pupil engagement and he give examples of questions he might ask himself:

> "Ok that group is on task...what are they doing........so you are looking for little cues...from the children...to see learning...it will be different levels of learning in the class..."(Dylan 1: 336-337).

As part of this response he says he would look for cues from the children to enable him 'to see learning'. He then talks about differences in learning as marked by differences in levels. This can be taken as a principally rational perspective. Darcie is asked to consider how she sees the aims of the subject and talks about setting open ended tasks. She is also asked to reflect on the rationale for this. As part of this responses she says,

> "…basically to see the level of progress and knowledge and understanding of the activity…of what I have got them to do…" (Darcie 1: 22-23).

It can be interpreted that Darcie sees the purpose of an open task enables her to understand what the children know and can do. However, she couches this not in terms of the level of competence but in terms of progress. In fact, she talks about 'progress', 'knowledge' and 'understanding. In a similar vein, Jude is considering what he feels are the aims of PE and talks about children making choices. He draws on an example based in children learning to play basketball and says,

> "…then you know you can see that then...they are learning something and that's valuable" (Jude 1: 22-23).

In this, he is saying that it is possible to see the children learning although it is not clear from this what he feels he is seeing. When Jude says, 'that's valuable', it can be assumed he is talking in terms of information to inform his teaching. Later in the same interview Jude talks about deepening understanding in his lessons and he is asked how that might manifest itself. As part of his response, he says,

> "…you can see physical progress" (Jude 1: 130-131).

This can be interpreted as Jude feeling that because PE involves children in moving, that it is easy to see. It must be noted that he says you can 'see' progress which might

mean he can see what the child might be doing and then be able to make comparisons about the state of competence before that moment. This idea of teacher assessment and what can be seen is also a feature of Darcie's consciousness. She had spoken about her preference for setting the children tasks to carry out independently. As part of the justification, she says,

> "…I think it is a great way to...assess and see...you know...how quickly they are progressing" (Darcie 1: 175-176).

Darcie is saying that this open task allows her to 'assess and see' and then says 'how quickly they are progressing'. The fact she talks about speed of progression is noteworthy. This seems to indicate that at some level she sees that learning should be 'efficient'. No doubt this might be interpreted by some as a form of neo-liberal seepage. It should be noted that at this point, Darcie does not talk in terms of knowing this to inform her teaching. Jude is thinking about issues related to assessment and as part of a long response he is asked if there are some aspects of the subject that he finds easier to assess than others:

> "…where people have judged students' performance because it is the easiest thing to say 'he's learnt or she's learnt...they have improved' because you can see it with your own eyes and PE teachers..." (Jude 1: 145-147).

Jude is saying that assessment in PE has tended to focus on the technical because that is the easiest to see. He follows this up by saying,

> "…so that's so easy to see improvement and progress and learning..." (Jude 1: 153).

It should be noted that he talks about 'improvement' and progress' and 'learning'. It is not clear from this how he sees the difference between the three. On the surface it feels as if those three terms are synonymous. In describing his Year 7 badminton lesson, Jude is talking about starting off with adapted games that are designed to make the activity easy to access. He then says that, as the lessons go on, the speed of progress slows but it is a good method to enable technical competence to be developed. Again, he talks in terms of this being visible:

> "…the further you go on with it…so yes you do see a lot of technical progress with it..." (Jude 2: 433-434).

The capacity to be able to 'see' learning is not viewed as exclusive to the teachers. In the second interview the discussion focuses on assessment and the issue of children being compared with each other. Dylan considers this and is advocating assessment levels:

> "I like the fact that they can see progress...you can put it on a bit of paper...you can verbally talk to them about it..." (Dylan 2: 219-220).

It is evident that Dylan is saying that the grade is necessary for him to be able to see progress. What is more significant here, is that he understands that this is also the case for the children. The question then, is the extent to which the children need to see grades that are increasing as a way to chart their developing mastery in the subject. Or is it that they have an understanding of their progress, based on their increasing insight and competence. Later on, the discussion moves onto whether it is necessary to make comparisons between schools, which of course would be a function of assessment grades:

> "…with maths and science the examined subjects you need to be able to make comparisons…but for core PE...I don't think so..." (Dylan 2: 244-245).

It seems surprising that Dylan appears to accept the hegemony that exists on the curriculum and here is quite happy to accept the subordinate status of PE. It should be noted that Dylan does not necessarily see assessment as an aspect of his practice. The first point to be made is that Ruby and Dylan, in particular, did not always see educational assessment as an element of their practice that they owned, but rather as a form of structure that was imposed on them from the outside. In the final interview with Dylan, he is asked about how he sees the aims of educational assessment:

> "Oh…Chris...I don't really know where we are with it…do you mean nationally? "(Dylan 3: 238).

This seems a really significant response as Dylan is saying that educational assessment exists mainly as a part of policy and not as a part of his practice, or indeed, that assessment might be an aspect of pedagogy. In saying, 'I don't know where we are with it', he seems to be saying that this is a process that is presented to him and that he has no ownership of it. The interview carries on:

> **CC-** In terms of the aims of it…*(assessment)*
>
> **Dylan**- Yeah.…what do you mean nationally…….What is the national reasoning?
>
> **CC**- Yes…if you had a PGCE student in and they asked you to do 15 minutes on the aims of educational assessment…is it something you tend to focus on doing.
>
> **Dylan**- Yeah I mean…it changes so much...it changes so much…Ummm…I have never thought about it nationally I think about it in-house…it does help you…'you' see where

the kids are it helps you…you explain to the kids where the kids are…and being able to compare the various strands of ability…between kids in the class is going to…help you…enables you to be a better teacher, overall teacher in respect of planning…for where they are going to be next lesson or next block...I think assessment itself is…is a really good…is a dammed good thing…and like we touched on before I think we are assessing more than we know...it just happens...it does not have to be on a national level I don't think unless it is GCSE PE then it has to be but core PE…I think that each school should just…have its own little…whatever works for them (Dylan 3: 239-251).

In this, Dylan raises a number of points. First, that assessment 'changes so much' suggests that he feels that the policy is being developed outside him and that he has no insider knowledge and possibly feels that he has very little ownership. Second, he then says he does not think about it nationally but on how it operates in his context. In this, he talks about seeing 'where the children are' (see section 10.2.3) for more on this. It has already been noted that Dylan spoke about aspects of his practice as an implicit process. Dylan refers to assessment as a form of tacit process for the teacher. He says that we are 'assessing more than we know' and then suggests that schools should have control over the process. Darcie talks about how she preferred the assessment structure that came before the one they were using at the time of the interview:

> "…they were easier to break down for the students…so that they could see a clear path of how to get from C to B and from B to get to A and so on…" (Darcie 2: 404-406).

She seems to be advocating a conception of assessment that in turn might assume that learning is visible and also linear and rational. In the first stage of the fieldwork Ruby is asked how she sees the project of gaining the grade and the project of learning in PE. This prompts a long response during which she references assessment:

> "…it changes all the time doesn't it…PE assessment…" (Ruby 1: 247-248).

When Ruby says, 'it changes all the time' it can be assumed that she is commenting on the particular model or structure that is in place at the time. As with Dylan, she appears to see assessment as a formal structure that is given to her in some way and that she has no ownership over its design. It can also be interpreted that she does not see that assessment is a part of her practice as a teacher. In the final stage of the field work she is invited to revisit this and is asked what, in ideal circumstances, she would see as an end point:

> "…I think I would have to sit and think…and read up on literature to think...do kids really need that number and that letter and I would have to read up on it more because...in the world that you are in you don't think of it...unless you are head of PE…I am not head of PE…I am second in PE and things like that…I have not really thought before of…is there another way..." (Ruby 3: 228-231).

It is worth noting that this appears to be something that Ruby has not considered. It also might be significant that she says that she does not read up on this as she is not the head of department. It can be interpreted that assessment is an aspect of her practice that she does not feel a great deal of ownership over. It should also be noted that in this, she is questioning the place of grades when she asks, 'if kids really need that number?'

In reflecting on the process of assessment Darcie is talking about making the processes explicit to the children:

> "I want to see where you are at…it is good for me to gauge your progress…and also you can see your progress..." (Darcie 2: 335-336).

Their state of competence is a 'location' as she says she want to see where they are at. In this, she says that the assessment enables the teacher and the children, themselves, to see progress. A good follow up study to this might be to ask children what they feel about their progress. The focus on progress being 'seen' is also a feature for Ruby who is asked about what she feels there is to see in lessons in terms of progress. She references all children practicing and then says,

> "…so as a teacher you can see they have progressed" (Ruby 1: 14-15).

This is a little ambiguous as it might mean that Ruby assumes that there will be progress. Or it might be that she is saying that the children will have progressed and this will be visible. The idea of the state of competence being seen as a location was also evident with Dylan who, in reflecting on the efficacy of assessment grades, says,

> "…you see where the kids are it helps you…you explain to the kids where the kids are" (Dylan 3: 244-245).

Dylan sees the grades as a way to help locate the children and also says that he uses it to 'explain' to the children where they are. This might suggest that at some level he feels that the children may not be able to 'read' what the grades mean. In the second interview Dylan is reflecting on the possibilities of heurism in learning and he suggests that teacher assessment is crucial. As part of this he suggests that the children are involved in the assessment. He says about the children:

> "…you can see them mentally assessing themselves and I would like to think their partner…" (Dylan 2: 40-41).

He is assuming that the children will automatically assess themselves and he says that he can 'see' them mentally assessing themselves. On the line of self-assessment as a way to make learning visible, Darcie is asked about what makes for a good target in a PE lesson and she says that she would use her key words. Then she says that they can be used as the basis for self-assessment:

> "…look at self-assessment in terms of where they are at look at other people in the group to see where they are at" (Darcie 1: 260-261).

In this, the idea of the state of competence as a location emerges when she says, 'to see where they are'. In this, she also talks about children looking at other people. It is not possible from this to know if this is something she endorses or just accepts as something the children may naturally tend to do. The idea of a state of competence being a location is developed by Darcie in the second interview. She is talking about assessment and making the case that because there have been so many changes, that it has lost its meaning. She says that the grades are a marker of progress but that they have limitations:

> "...in terms of…so they can see where they have started and that they are improving...but…I can't say that I overly agree with it" (Darcie 2: 401-403).

In the third interview Jude is in the middle of a long response to a question about what he feels is happening when the teacher asks a very good question:

> "…then you can see the confidence rises and then all of a sudden you have a student who never puts his hand up ever" (Jude 3: 234-235).

He has spoken about increasing 'think time' and says that a result, more children are willing to contribute and that he can 'see' confidence rising. In the third interview he is reflecting on the place of questions and Jude talks about encouraging the children to develop their own questions:

> "I think…as a teacher looking in on that situation you can learn a lot about what you need to do because you can really see where those students are at and what they have learned..." (Jude 3: 184-185).

He then makes the case that this kind of process is very helpful in seeing where the children are at, which is the location metaphor for state of competence. He also says that 'you can see where those students are at and what they have learned' so the idea that this is visible emerges again. In a similar vein, when talking about giving the children chances to lead and take ownership of their learning, Ruby says that she can see the confidence increasing:

> "…but you can see a difference of confidence with the girls from giving them this chance to take ownership and leadership of their class" (Ruby 2: 61-62).

This is another example of an assumption of a participant seeing that teaching 'causing' learning as well as being an instance of Ruby feeling she can see a difference.

10.4.3 Theories of teaching that assume learning is visible and rational: summary

On the basis of the field work carried out in this research the teachers often spoke in terms of being able to 'see' learning and that this could happen in terms of technical competence and also in more personal qualities such as confidence. There were references to seeing learning and related aspects such as understanding but it was not always clear if there was an implicit understanding that some form of comparison with an earlier state of competence was being made.

The idea that they felt that they could 'see' learning would suggest that implicitly, they saw learning as something that can be measured and observed and so would belong to a realist paradigm.

10.5 Theories of teaching as a way to interpret theories of learning

The idea of interpreting how learning appears in the teachers' consciousness through considering their theories of teaching is unique to this research and as such, a contribution to theory. The justification approach for this lies in the idea that we are a single unit of experiencing and we are 'thrown into a world' that was already existing and this shapes the ways that we can be. In this research there is an assumption that, the ways that learning appears in the consciousness of the participants, whose role is to teach in that department, will be influenced by that context. As their identity is to teach, it makes sense that this is the main perspective of their consciousness. In order to by-pass the perspective that the person is a substance, Heidegger (1962) argued that *Dasien* was, "agency in the course of being in the world" (Guigon, 1983: 87). The notion of agency is often used by sociologists and is related to structures (Biesta and Tedder, 2006). Therefore, it is logical to suggest that the participating teachers in this study were 'thrown' into their school and their sense of agency was shaped by how they experienced that environment. In thinking about the significance of that world view it is important to remember that how the participants saw their teaching world, is a rich source of interpretations about how they understood learning.

> "All my knowledge of the world, even my scientific knowledge, is gained from my own particular point of view, or from some experience of the world without which the symbols of science would be meaningless" (Merleau-Ponty, 1962: ix).

Merleau-Ponty is saying that all we have is our own view of the world and that perspective gives meaning to whatever we choose to focus on. In this case the teachers' principal role was to teach and that must colour how they see the world. Therefore, attending to how they theorize teaching is a valuable source of interpretations of their theories of learning.

The key themes that have emerged in this chapter are that in many cases the participants spoke about teaching and learning as if they existed in a causal relationship. That is to say, they spoke in a way that seemed to assume that what they did in the way of teaching 'caused' the children to learn something intended by the teacher. At other times they spoke about the process in a deeply divergent manner where aims were open ended as was the process, and heurism, was often advocated. It is possible that they tended to speak in a more divergent manner when they were theorising about practice and in a slightly more convergent manner when describing practice but this is not a secure finding although it might be a helpful focus for future research. This would suggest that their theories of teaching were also subject to considerable nuance. It is also evident that many of the interpretations that have been made about personal theories are making assumptions that as was introduced in chapter 7, the theories are both espoused and implicit.

There was a strong indication that the participants felt that they could 'see' learning and progress and this was articulated with some confidence. This, places their theories of learning very much, in a realist paradigm where the assumption is that the phenomenon to be examined can be observed and measured in some way. This suggests that at some level learning is not seen to 'count' unless it can be seen and measured.

With the advent of more embodied theories of cognition, sometimes, people come to understand in surprising ways that do not fit within empirical or rationalist explanations

of learning. It has been claimed that over the years, learning theory has almost been 'claimed' by the psychological discipline and that this might mean that other opportunities for insight into how humans learn, have been lost (Jonassen, 2009). Carr (1994) argues that the weakness of much psychological discourse is that it is,

> "… 'held completely captive' by a description of mental or behavioural processes that are identifiable and analysable in 'natural scientific terms', as if they are events in a 'causal relationship' that can be explained somehow with 'laws established on the basis of observation and experiment' (p. 39).

Given this, in recent years, there has been a move to 'reclaim' learning theory and situate it in a more embodied paradigm. Marton and Booth (1997) argue that it is the whole person who learns and that, "In order to make sense of how people handle problems/ situations we need to understand the way they experience them" Marton and Booth (1997: 104). Stoltz (2015) argues that perceptual experience plays a significant part in how we learn. Similarly, in a more embodied perspective, learning has been constructed as concrete, incorporated, lived; and that knowledge is about situatedness (Horn and Wilburn, 2005).

Participant's conceptions of teaching - Summary of findings

		The relationship between teaching and learning	Conceptions of teaching, learning and understanding	Theories of teaching that assume learning is visible and rational
Dylan	Espoused	Children can be 'given' a picture; importance of meta cognition; children 'filled' with confidence; confidence tangible; teacher demeanour 'rubs off on children; teaching social values; teaching for inclusion; 'letting them loose'; use 'own brains'; giving the leash;	Seeing progress- competence revealed; progress made in various dimensions; learning is 'displayed'; children must understand to progress;	See understanding; looking for cues; summative assessment and assessment as measurement important; see them mentally assessing;
	Implicit	Assumptions of transfer; learner moves; recognizes class 'mood' he has little agency;	Assumption that learning is learning 'new' content; assumption that cognition is about high levels of awareness.	Assumptions of 'visibility'; some creative extrapolation?
Ruby	espoused	Teachers sets rules; you can 'see' difference in confidence; giving ownership; children must think for themselves; rapport with children;	What to see in a good lesson-expectations, differentiation; has ideas of stages of activities; teacher monitors; go away to practice; tasks are given; possibility of tacit knowledge;	Assessment is 'given' to her; is level important?; seeing where children are; leadership leads to ownership;
	Implicit	Assumptions of teaching causing learning; sees teacher as holding power;	No specific reference to learning as a form of trajectory;	State of competence is a location; teaching and learning in a causal relationship
Darcie	Espoused	Key words 'drilled' in; strong advocacy for independent learning; assumptions of linearity; power of teacher questions; assumptions of teacher and children building a relationship/ contract'; 'ingraining' assessment structure; strong support for open ended tasks; let go of reins; social learning; assessment leads learning; teacher must stand back;	Assessment leads teaching; looking for levels of progress and understanding; who takes the lead? ; working towards targets;	Levels of progress; speed of progress; clear rational linearity; endorses norm referenced perspective?; where children are;
	Implicit	Assumptions of transfer;	Separation of dimensions; competence revealed?;	State of competence a location; technical perspectives on learning; norm referenced perspective; 'progress' is reified;
Jude	Espoused	Life skills; transfer to outside world; 'you' are doing badminton; changes in his approach causes learning; teacher structure has specific effect; assumptions about 'conditions'; teaching how to accept defeat; advocates heurism; lesson progresses; planning questions;	Physical progress is easy to see; he deepens understanding; how things 'feel' for children; understanding is 'brought out'; quality answers with wait time.	See learning; physical learning g easier to see; easy to see improvement; technical progress; good questions prompt inclusion'; seeing where children are;
	Implicit	Assumptions of causal relationship; takes teacherly view; sporting discourse privileged?; he sees attitude as a skill; lesson as a performance;	Privileging discursive consciousness; causal relationship; very nuanced perspectives; competence revealed;	Child participation in lesson is key; state of competence is a location;

Table 10.1 Summary of findings presented in chapter 10

Chapter 11 – Conclusions and recommendations

11.1 The aims and purposes of this research

It is axiomatic that learning is a central aim of education and as teachers educate students, it follows that how they theorise this process, will be of interest. In this thesis the assumption has been that 'theory' is an explanation and so what has been of concern in this research is how the participating teachers understand and explain how children learn. Given this focus 'personal theories' was adopted as the category of research. Personal theories are often described as explanations that are viewed as 'common sense and tacit' in nature (Senden and Roberts, 1998). Up to this point there have been comparatively few empirical studies into teachers' personal theories of learning (see Chapter 4 for a more detailed summary). The headline findings of the studies that have been carried out, indicated that personal theories are frequently held implicitly (Tann, 1993), that they are often internally inconsistent (Tsai, 2002) and that they can be difficult to interpret (Senden and Roberts, 2006). The approach in this research has been a phenomenological one. In phenomenology what is of interest is, "…how people view and experience their lives" (Willig, 2001: 66). An interpretive phenomenological approach was deemed to be appropriate,

> " …. as it attempts to explore personal experience and is concerned with an individual's personal perception or accounts of an object or event, as opposed to an attempt to produce an objective statement of the object or event itself" (Smith and Osborn, 2008: 53).

Hence, in this case the focus of the interpretations were of the participants theories about learning happens.

It should be noted that learning theory has not formed a major part of educational policy in recent years. In Table 1.1 there is a summary based on five major educational policy documents from the last ten years which would suggest that other matters have been of greater concern and that this has been the case even in teacher education and teacher professional development. This omission might be seen as insignificant but it will be argued here, that understanding how teachers theorise about learning has the potential to inform their professional practice and empower teachers to take more control of their professional lives.

In reporting on research by Alexandersson (1994) that looked at how teachers' awareness was structured, one of the headline findings was that the teachers tended not to talk about the fine detail of how they helped children learn subject content. Commenting on this Marton and Booth, 1997: 173) said, "The result is most baffling. How can teachers so lack focus on what should rightly be at the heart of their work?". Part of the purpose of this research has been to try and understand how the teachers in this study, theorize how they help children learn the subject content in their lessons.

The process of learning, being afforded little consideration in teachers' professional learning was also a personal perspective. Having started to teach in 1979, it was only late in the 1980s that it occurred to me that I was earning my living as a teacher, some people were even kind enough to say positive things about my practice and yet I knew that I had very little idea about why I did what I did. I certainly had nothing approaching any kind of coherent theory that would explain how children learn that underpinned my teaching. Later on, when working in Higher Education as a tutor on a teacher education programme, I noticed that the PE students and mentors with whom I worked, did not seem to have a discourse of learning. In research based in interpretivist phenomenology this is significant as Heidegger (1978) felt that discourse was the way that the meaning of the world is manifested for *Dasien*. Therefore it follows that by attending to the discourses that the participating teachers in this research drew upon that it is possible to make valid interpretations about their personal theories of learning.

Given Engestrom's (2009) claim that any theory of learning must address questions about who is learning, why they learn and how they learn, three of the substantive chapters of the findings were organised in terms of: how the participants saw the aims of the subject (Chapter 8), how they 'constructed' their students (Chapter 9) and how they understood their teaching in terms of stimulating student learning (Chapter 10). It should also be noted that scholarship in the field of personal theories of learning has been sparse (Claxton, 1996).

There are three justifications for this research. First, it is a study that seeks to contribute to the field of teachers' personal theories of learning which is arguably under researched. Second, that it is uniquely employing an interpretive

phenomenological approach and third, it focussed on secondary PE teachers who other than Carpenter (2012) had not been the subjects of research like this before.

11.2 How the research was designed and undertaken

The approach employed was based in interpretative phenomenology. In such an approach, what was required was to understand how learning was construed in the participating teachers' consciousness. Interpretive phenomenology assumes that peoples' accounts tell us something about their thoughts and feelings (Willig, 2001) and so has great potential for developing understanding about their personal theories of learning. The assumption is that the participants experience is mediated by their subjective experience of the world and as such, belongs to a relativist ontology. The analysis is phenomenological as it represents the participants world view and also interpretive, as it is dependent on the researcher to author the findings. Any insights gained from this process are a matter of interpretation by the researcher however, Interpretive Phenomenological Analysis (IPA) does not theorise reflexivity (Willig, 2001). In this case, it must be emphasised that the methodology is aimed at interpreting what the participants theories of learning are and makes no attempt to explain them. Explanations of personal theories of learning would be a very different project and require causal explanations.

There were three rounds of field work with each of the four participants and the interviews were carried out between January 2019 and June 2019. The first round was a semi-structured interview that employed generic questions as a way to explore their construing. In the second stage, the participants were asked to describe a lesson that they had taught recent to the interview, where they felt the children had learned very well. This was carried out in a more unstructured manner with supplementary questions arising from the first interview and also picking up on matters in the moment. Following some initial analysis in the final round, there was a semi-structured interview with a bespoke schedule for each participant. The idea here, was to reflect back emerging themes in order to get a version of their perspective that had a high degree of fidelity.

11.3 Demarcating the approach

This was a case study set in a PE department in one school (Northview Academy) which is in line with convention. "IPA researchers usually try to find a fairly homogenous sample, for whom the research questions will be meaningful" (Smith, Et al. 2009: 49). Of course, the degree of this homogeneity may vary a good deal and is not something under the control of the researcher. In this case, there were four participants, all of whom had taught at the school for at least three years. PE was chosen, as that was the subject specialism of the researcher which meant that they had a particular subject-related interest. It also meant that the cultural signifiers associated with PE, would be familiar, although there is the concomitant idea that this could also be a slight disadvantage as it might be harder to make the 'familiar strange' (Holliday, 2002).

11.4 Headline findings

On the basis of the analysis in this research the participants' personal theories of learning can best be described as a conglomeration of heterogenous theories. These were held as espoused and also as implicit theories. This supports the findings of previous research into personal theories (Ross, 1989; Dweck Et al. 1995; Levin and Le 2008). In previous research the inconsistent nature of personal theories has been referred to as a lack of coherence (Sendan and Roberts, 1998). In seeking to be true to a phenomenological approach and accepting that people's consciousness of the world is 'in the manifold' (Sokolowski, 2000) this inconsistency has been referred to as 'nuance'. This is because that was felt to better represent the different shades of meaning that it is assumed people hold in the 'natural attitude'. There was also a sense that, for the most part, the participants' accounts suggested that they existed in a state of what Heidegger (1962) referred to as *inauthenticity,* where they appeared to take the world for granted. This is understandable as there is a security that comes from being part of the 'they' or *Das man* and it must also be said that a research interview is not necessarily the place where they would have felt comfortable in disclosing moments of authenticity. This can also be explained in terms of cognitive dissonance which is a term based in psychology which suggest that people have a need for coherence and consistency so they can predict and control events (Ajzen, 2005). If they realise there is dissonance this causes a 'realignment' to produce an internally consistent perspective. However, if the participants are holding nuanced theories of learning but don't notice this then there is nothing to 'realign'.

It can also be said that they had a narrow and relatively impoverished discourse of learning to draw upon and this was reflected in a number of other findings that emerged at different times in the field work. First, that although all the participants espoused a notion of teaching as developing competence, there were also moments when implicitly, they seemed to be talking more in terms of competence revealed. Second, that it seemed that there was an assumption that learning was subject to 'discursive consciousness'. This suggests that the possibility of tacit knowledge was less prominent in their consciousness. Third, that 'progress' was clearly a prominent part of the participants' discourse but that often, it was described as a matter of value in its own right rather than being used to explain increasing mastery over some subject content. Fourth, that learning was frequently described as a matter of 'how much' rather than a sense of personal meaning. Fifth, that learning was sometimes seen as something that had an end point and could be 'finished'. Sixth, that learning was sometimes described as visible, measurable and rational. Seventh, that students were occasionally seen as fixed or defined by labels such as 'leader' or 'high ability'. Eighth, that for the most part, it was felt that grades were helpful as they can 'show where the student is'. Ninth, that the participant used metaphors related to 'moving' and 'place' to represent student learning. A state of competence described as a location. Tenth, that there are assumptions of learning as a process of transmission, although there were also times when the participants spoke about the importance of independent learning and heuristic approaches. Eleventh, that in some cases the participants spoke about the purpose of the project of learning in PE as an essentially divergent one although when they spoke about the practices this was often couched in more convergent terms.

11.5 Evaluating the approach

It should be noted that in this evaluation it is a matter of evaluating the approach and how it was carried out. "Strictly speaking, there are no 'right' or 'wrong' methods" (Willig, 2001: 21), although she does go on to say that methods can be more or less appropriate. It has been claimed that "…. qualitative research should strive to gain 'understanding represented in a way that achieves coherence and integration while preserving nuances" (Elliott et al., 1999: 222–223: Cited in Brocki and Wearden,

2006). Brock and Wearden (2006: 95) conclude that, "Perhaps it is when the researcher feels that their analysis has achieved these goals, whilst telling a suitably persuasive story that the analysis may be considered sufficiently complete." In this research it needs to be remembered that the participants were busy teachers and also that there are external deadlines for presentation of findings to be met. There is also the idea that in qualitative research it is often harder to draw tight boundaries and controlling variables is not an option as is the case in research-based in positivism.

IPA is an example of a philosophy being used to underpin a research method and this can present problems (Findlay, 2012). As the researcher moves into the study, a continuing challenge is how to help participants express themselves as directly as possible such that the lived world of experience is revealed. The key to quality in the process relies on careful, empathetic interviewing which seeks to enter the lifeworld through descriptions of experience.

It is important to note that generalising research findings from a single case is often considered to be problematic because the small sample sizes of such ideographic research are not necessarily deemed representative of larger populations. Evers and Echo (2007) argue that there are important factors which should be taken into consideration. In particular, the idea that cases often possess considerably more structure than is commonly supposed. This is because they are likely to be shaped by external factors such as culture, language, theory, practices of co-ordination and communication and a network of constitutive and regulative rules. All of which, they are likely to have in common with other cases. It should also be remembered that case study findings may not be generalisable to populations but that they can be more readily generalised to theoretical propositions (Yin, 2003). In this case the argument would be that the characteristics of the personal theories of learning may not be representative of other populations but they may well make a ready contribution to theory.

11.6 Future agenda for research
There would seem to be four particular avenues for further research. First, and most obviously, this could be the start of multiple case studies. Teachers in other secondary PE departments might be recruited and it would also be possible to employ the same approach with groups of teachers in other subjects. Second, an issue with researching

secondary teachers is that they will see many children each week whereas primary teachers tend to stay with their class. Therefore, it would be interesting to carry out this approach with primary teachers as this would give a sense of the perspective at a different phase of education and also, it is likely that they would know their children better than secondary teachers. This might enable them to have insights that it would be more difficult for secondary teachers to have. Third, some of the themes that have emerged in this research could be used as the basis for a nomothetic research design. Fourth, on the basis of the analysis here, it would seem that there is scope to develop Heidegger's line of authenticity. In particular, to consider what an 'authentic' moment in a research interview might look like. It should be noted that in this, 'authenticity' can be seen as closely related to developing agency and it has been argued that what is required by policy is actually a more compliant teacher workforce (Smyth, 2011: Wrigley, 2019).

11.7 Recommendations for policy and practice
The principal implications for policy and practice would seem to be in initial teacher education; teachers' continuing professional development (CPD) and educational policy.

The field of personal theories of learning as an area of study in Initial Teacher Education, has the potential to be valuable in a number of ways. First, the idea of developing an understanding of the theories of learning that students have when they arrive. Second, Loughran (2005) has considered the importance of students eliciting their mentor's knowledge and discussions around theories of how children learn, would seem to have possibilities for opening up dialogue in a situated and productive manner. In terms of policy there is a question about what education is for. The Education Reform Act (1988) gave the secretary of state for education over 400 extra powers and heralded an era of high levels of political intervention. It has been argued that politics is principally a concern with power hoarding (King, 2005; Baron, 2018) and so this situates the agenda for educational policy in a particular way. One of the central aims of education, as constructed in policy, is as a means of producing human capital in order to compete economically (Olssen Et al., 2004). This might have been part of the reason that a focus on processes, such as theories of learning, does not fit so readily with a focus on outcomes. The final area for application is continuing professional development for teachers. This has been subject to many forces in

recent years and one of those has been the idea of education being about privileging particular outcomes such as a focus on producing human capital in an efficient manner. However, there is no reason to think that a better understanding of how children learn would necessarily inhibit this. King (2016) argued that professional development should seek to develop teacher agency and a consideration of personal theories of learning would have potential in this field. Similarly, Lopes (2016) argued that teacher CPD requires 'creative insubordination' and an analysis of theories of learning might help to give cognitive leverage in this respect.

11.8 Contribution to knowledge

The field of scholarship focussed on teachers' theories of learning is relatively thin. It may be because it is not considered to be a topic of interest or relevance. This research makes a contribution to knowledge in four ways.

First, it offers new perspectives on personal theories of learning. In particular, the idea that personal theories of learning are not 'neat' but are a conglomeration of theories held as espoused theories, implicit theories and demonstrate considerable nuance.

Second, that there were a range of findings that could be interpreted in the participants' accounts at various moments. Notably, that learning was often seen as being subject to discursive consciousness; that learning can be finished; that learning was something that was seen as rational and visible.

Third, that using interpretative phenomenology as the approach, has potential and offers a way to understand how learning appeared in the participants' consciousness.

Finally, it is hoped that this research might prompt a revival of interest in the field of personal theories.

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Appendices

Appendix 1 - Field work questions: phase 1

Appendix 2 – Bespoke field work questions: phase 3

Appendix 3 – Summary of previous studies into personal theories

      a. Summary of empirical studies using personal theories

      b. Summary of empirical research into personal theories of learning and teaching - In chronological order

Appendix 4 - Example transcription- Jude

Appendix 5 - Example of Raw data: Chapter 10

Appendix 6 - Example of Data Analysis: Vignette-Jude

Appendix 7 - Summary of key themes in the findings

Appendix 1 - Field work stage 1 lead questions

1. What do you feel children should be learning in P.E?
2. When you look for learning in your lessons what do you feel that there is to notice?
3. What factors do you consider when planning lessons?
4. What sort of strategies do you use to help children learn in PE?
5. What kind of things do you do when children fail to learn in PE?
6. What do you feel are the barriers that prevent children learning in PE lessons?
7. What do you consider to be good targets for children in PE?
8. We are watching a really good PE lesson. What are we seeing?
9. What do you feel are your strengths as a Teacher?

Appendix 2 - Bespoke Questions for Phase 3 of Field Work

Each of the questions is seeking to reflect back to the participant, aspects that they had mentioned in the first two rounds of field work that were identified in the initial analysis.

Questions: Interview 3 – Darcie

- At this time how do you see the aims of the subject?
- Stepping back- you spoke about this a good deal before. What do you see as the value of this?
- How do you understand learning independently? What is the value of that?
- Key words – fluency and accuracy. What do they mean to you now?
- What do you see as the value of trial and error in learning?
- You spoke about children learning and not realising it. How do you see this now?
- How do you see motivation to learn?
- They need to know where they are working at…*what does that mean to you now?*
- Do you have many surprises about progress or lack of progress?
- Can you describe a child who is good at PE?
- 'Drawing things out of them'?
- When you are looking for learning what do you see? What are you looking for?
- How do you feel children demonstrate their state of understanding in practical lessons?
- How do you gauge their understanding? Gauging their understanding through questioning- are there other ways?

Questions: Interview 3 - Dylan

- What do you see as the main purposes of the subject?

- Life skills- what does that mean to you?

- Learning to compete or learning through competition?

- Privileging of skill?

- Ability- Can you describe a high ability child?

- Classes as homogeneous- Can you tell me about a class who are doing well?

- What is the point of educational assessment?

- How does assessment aid learning?

- 'Levels act to encourage children'- do they have a down side?

- How do you arrive at learning intentions?

- When you are thinking about what you want them to learn-do you think?

- Asking the right questions- what is a right question?

- When you look for learning –what are you looking for?

- What are the barriers to learning for some children?

- You spoke before about the children understanding what they are doing. How do you see that now?

- How important is it for the children to be able to articulate their physical competence?

- Spoke about 'exploration'- what are the possibilities of this?

- What do you see as the value of trial and error in the learning process?

- That they know where they have come from?

- Displaying good social skills- can they learn them in PE?

Questions: Interview 3 – Jude

- What are the aims of the subject?

- You spoke of consolidating learning. How do you understand that now?

- What principles underpin your games teaching?

- How do you see ability?

- Feedback – how do you understand that?

- How does assessment help children's learning?

- Transfer of learning E.G. big shuttle game to badminton

- How do you feel that questions help children learn?

- How do you feel that learning happens?

- What makes a good lesson objective?

- When you look for learning what is there to see?

- Anything about the transcriptions that struck you?

- Plenary- purposes?

- What do you feel about setting now?

Questions: Interview 3 – Ruby

- In a previous interview you spoke a good deal about children 'exploring'. *What do you see as the power of 'exploration' in learning?*

- How do you feel children demonstrate their understanding in PE?

- How do you feel that thinking occurs in PE?

- What do you feel has to be in place for children to learn really well?

- When you see progress what kinds of things are you seeing or looking for?

- What do you want to know about the children in order to help them learn?

- What do you see as the role of assessment in helping children learn?

- What do you hope that children will get from the lessons?

- How would you describe a 'good' student in PE?

- How do you see your role in helping children to learn?

Appendix 3 (a)– Summary of empirical studies focused on personal theories

Author	Year	Title	Method
Ross, M.	(1989)	Relation of implicit theories to the construction of personal histories.	Attribution theory
Brickhouse, N.	(1989)	The teaching of the philosophy of science in secondary classrooms: case studies of teachers' personal theories.	Narrative
Wong, P.	(1989)	Implicit theories of meaningful life and the development of the personal meaning profile.	Personal meaning profile
Cole, A.	(1990)	Personal Theories of Teaching: Development in the Formative Years.	Reflection on self-inquiry
Tann, S.	(1993)	Eliciting Student Teachers' Personal theories.	Analysis of student reflections
Weiner, B.	(1994)	Integrating Social and Personal Theories of Achievement Striving.	Attribution theory
Dweck, C., Chiu, C. and Hong, Y.	(1995)	Implicit Theories and Their Role in Judgments and Reactions: A World from Two Perspectives.	Attribution theory
Senden, F. and Roberts, T.	(1998)	Orhan: a case study in the development of a student teacher's personal theories.	PCP
Hochstrasser-Fickel, L.	(2000)	Democracy is Messy: Exploring the Personal Theories of a High School.	Phenomenological
Klaczynski, P. A., and Robinson, B.	(2000)	Personal theories, intellectual ability, and epistemological beliefs: Adult age differences in everyday reasoning biases.	Psychological profile
Chan, K.	(2001)	Validation of a measure of personal theories about teaching and learning.	survey

Ommundsen, Y.	(2001)	Pupils' affective responses in physical education classes: the association of implicit theories of the nature of ability and achievement goals.	Survey - Hierarchy and moderated regression analyses.
Tsai, C.	(2002)	Nested epistemologies: Science teachers' beliefs of teaching, learning and science.	PCP
Tsangaridou, N. and O'Sullivan, M.	(2003)	Physical Education Teachers theories of action and theories-in-use.	Mixed methods
Braten, I. and Stromso, H.	(2005)	The relationship between epistemological beliefs, implicit theories of learning among Norwegian postsecondary students.	Questionnaire multiple regression analysis
Griffiths, M. and Tann, S.	(2006)	Using Reflective Practice to Link Personal and Public Theories	Levels of reflection
Levin, B. and Ye, H.	(2008)	Investigating the Content and Sources of Teacher Candidates' Personal Practical Theories. (PPTs).	Content analysis- self reporting
Harnett, J.	(2012)	Reducing discrepancies between teachers' espoused theories and theories-in-use: an action research model of reflective professional development.	Action research- mixed methods
Barger, M.	(2016)	Do the Messages Matter? An Investigation of Classroom Messages and College Students' Personal Theories about Education.	Surveys
Van den Bogaart, A. Harmen, H. Hummel, H. and Kirschner, P.	(2017)	Combining concept maps and interviews to produce representations of personal professional theories in higher vocational education: effects of order and vocational domain.	Concept mapping and interviews
Barger, M. and Linnenbrink-Garcia, L.	(2017)	Developmental Systems of Students' Personal Theories About Education.	Developmental systems model
Barger, M.	(2019)	Connections Between Instructor Messages and Undergraduate Students' Changing Personal Theories About Education.	Surveys

Manikko, I. and Husu, J.	(2019)	Examining teachers' adaptive expertise through personal practical theories.	Interviewing
Van den Bogaart, A. and Mazereeuw, M., Hummel, H. and Kirschner, P.	(2019)	Comparing Collective and Personal Professional Theories of Experienced Practitioners.	Concept mapping
Maaranen, K. and Stenberg, K.	(2020)	Making beliefs explicit – student teachers' identity development through personal practical theories.	Narratives
Ostrowdun, C., Friendly, R., Matthews, K., De Bie, A. and Roelofs, F.	(2020)	Holding Space and Engaging with Difference: Navigating the Personal Theories We Carry into Our Pedagogical Partnership Practices.	Autoethnography
Wiid, J., Cant, M. and Du Bruyn, M.	(2020)	The Relevance of Traditional Personal Teaching Theories in a Technological Advanced Educational Environment.	Self-completion questionnaires
Papadopoulou, V., Kyriaki, T. and Palaiologou, N.	(2020)	Teachers' Personal Theories of Teaching: Managing Cultural Diversity in Mainstream Public Primary Schools in Greece.	Mixed methods

Appendix 3(b) Summary of empirical research into personal theories of learning and teaching - In chronological order.

Author (s)	Year	Title
Anning, A.	(1988)	Teachers' Theories about Children's learning.
Brickhouse, N.	(1989)	The teaching of the philosophy of science in secondary classrooms: case studies of teachers' personal theories
Cole, A	(1990)	Personal Theories of Teaching: Development in the Formative Years.
Tann, S.	(1993)	Eliciting Student Teachers' Personal theories.
Senden, F. and Roberts, T.	(1998)	Orhan: a case study in the development of a student teacher's personal theories
Chan, K.	(2000)	Validation of a measure of personal theories about teaching and learning
Ommundsen, Y.	(2001)	Pupils' affective responses in physical education classes: the association of implicit theories of the nature of ability and achievement goals.
Tsai, C.	(2002)	Nested epistemologies: Science teachers' beliefs of teaching, learning and science Chin-Chung Tsai Journal of Science Education, 24 (8) 771-783,
Braten, I. and Stromso, H.	(2005)	The relationship between epistemological beliefs, implicit theories of learning among Norwegian postsecondary students.
Barger, M.	(2016)	Do the Messages Matter? An Investigation of Classroom Messages and College Students' Personal Theories about Education.
Barger, M.	(2019)	Connections Between Instructor Messages and Undergraduate Students' Changing Personal Theories About Education
Wiid, J., Cant, M. and Du Bruyn, M.	(2020)	The Relevance of Traditional Personal Teaching Theories in a Technological Advanced Educational Environment

Papadopoulou, V., Kyriaki, T. and Palaiologou, N.	(2020)	Teachers' Personal Theories of Teaching: Managing Cultural Diversity in Mainstream Public Primary Schools in Greece

Appendix 4- Jude Noble- Transcript of First Interview: 11 January 2016

(N.B. All names used are pseudonyms)

CC- What would you feel that children should be learning in PE?

JN- Ok…Mmm…I think historically...people...sort of tend to think of…learning in PE it has to be a physical thing…mmm…and from my experience I think it is a lot more than that...and actually...in the last few years…we have started to...really…when we are assessing students in PE...we are assessing them in lots of different ways rather than just…purely on their...sort of…physical, technical ability...so in terms of what they should be learning…I think they should be learning…sort of...theoretical concepts…..and…and...key things that set them up for studying at GCSE...

CC- Mmmm

JN- I think they should be learning about things like…sportsmanship…fair play…I think they should be learning about fitness…the importance of staying fit and healthy…and also being fit and healthy for life…..not just…I am doing PE now so this is where I am fit and healthy…it is actually having those...that idea of being fit and healthy for ever...you know...eating well...looking after your body...taking care of any sports injuries that you might have…and that sort of thing...so I think they should be learning that as well…I think they should be learning...decision making...so…not only are we looking at their…sort of the traditional technical ability side of things...but we are looking at how well can they make decisions…if they...if they are in a game situation…can they make the right pass or can they make the right movement or can they choose the right technique...at a given moment.

CC- Mmm

JN-   It might not be that their technique is particularly good but...if they can choose to do a lay-up rather than a set shot in basketball...then you know you can see that then...they are learning something and that's valuable...uhm...so I think that side of things is definitely really important. I think two other areas that probably slide under the radar a little bit are leadership and coaching. I think in a PE environment we should definitely be teaching students to be good leaders and teaching them coaching skills. Uh...I mean...If you look at the vast majority of PE related jobs...you know...when people go through school...a lot of it is to do with...either leadership or coaching whether it's in a teaching capacity, whether it is in...working for a sports team or in a university or wherever.

CC- Mmm

 JN- It tends to be...you're using a lot of skills in coaching and leadership...uhm...so...and I think that they are valuable life skills as well not only...not just in the...the sort of domain of PE so...I think my answer to...I think on top of that, as well, you've got sort of key fundamentals of...just good character. You want...you want to be teaching students to be a good person...and I think through sport and physical activity there are a lot of good lessons that they can learn...uh...through that so...I think what they should learn in PE yeah...we want to be teaching them technical ability, we want to be teaching

them to become good basketball players, good footballers, good gymnasts, good...dancers, good swimmers, of course, but I think there is so much more...as well.

CC- Okay, brilliant, thank you. You started off...you said, 'different ways to assess'. Did you mean different *ways* to assess or did you mean different *things* that should be assessed?

JN- Yes, well both...we want to be assessing them in different ways but we want to be assessing them on different...strands as well I suppose/

CC-Yeah, yeah

JN- /if that's the right way to put it...so...like I say...on their knowledge, on their...theoretical concepts, on their coaching and their leadership, on their decision making, on their character, on their fitness and their understanding of health and lifestyle so I think we want to be assessing them on those things just as much as on how good a footballer they are or how good a gymnast they are...or whatever.

CC- Okay, brilliant, thank you. So...uhm...something like the character, would you say that participation in PE develops character or reveals it?

JN- Both. Uh...I think...you know you can get someone who is particularly shy or particularly introvert and PE can really bring them out of their shell so...like I say...I think that can reveal...you know...some character traits that maybe even the student never thought they had/

CC- Yeah, Yeah

JN- /...uhm...so it definitely...can...it can reveal character traits within a person but I think also it can...it develops strong character traits as well. It develops traits such as...as confidence, leadership, communication, uhm...all those are really really vital...teamwork. Those sorts of core...core character traits that can be developed as well and those are the sort of things that...I know my PE team, we...we work hard on making sure that the students do develop in those areas.

CC-Mmm, and with the decision-making, would you say that...that something is quite situated or would you see...uhm...the capacity to make decisions as more like a global disposition...a global/

JN- global/

CC- characteristic?

JN- /global, 100% because if you can make...if you can make a good decision in badminton, then you're probably far more likely to make a good decision in football and rugby and gymnastics and...whatever you're going to be teaching so I think...you know...you can teach good decision making that's going to affect the whole of…of PE and on top of that it might help to make good decisions outside of PE in the big wide world...you know...if you can make...because often a PE decision has to be *(clicks fingers)* quick has to be right there, then what are you going to do? What's the best thing to do? Uhm...and so if they're practised in that and they're making those quick, fast decisions and hopefully the more...the more they're in that situation, the more they're getting those decisions right/

CC- Mmm

JN- /then...you know...they take that into a separate context...right *(clicked fingers)* I've got to make that quick decision...maybe when it's when they learn to drive and you know they're on the road and they've got to make a quick decision, they can do that, they've got a better ability to be able to do that...so...

CC- So do you see that transfer of learning as...being...or...how do you see that transfer of learning? Do you think it's relatively unproblematic?

JN- I don't think...I think it's something that the student doesn't realise is happening but I think it's...I think...if you've been...if you've learned to make decisions in a physical environment and a practical environment where you're doing something with your body, Then I think that's transferable quite easily. I think if you can make a decision in terms of which shot to play in badminton then I think that...that sort of idea can be transferred into a life skill like choosing how to react to a situation in a car/

CC-Sure

JN- /for example, I think that's...I think because at the end of the day it's the same brain, it's the same body...you're using those processes.

CC-Yeah

 JN- It's just…and it's knowing what the right and the wrong decision is and can you make that, so...

CC- Okay.

JN- Definitely global, I think.

CC- (coughs) Sorry, one more thing. 'Life skills', can you talk a bit more about that? What is your understanding of 'life skills'?

JN- So I think a big...an important one for...for me is...is communication. Uhm...I think one thing students I've noticed, certainly, are not so good at as much as they used to be is that...uhm...is that communication in a PE environment, being able to have that confidence of talking to your team mates, speaking to a partner, getting your ideas across, not getting frustrated because things aren't going your way and not knowing how to...sort...of show that to...to...to yourself or to your team/

CC- Sure

JN- /mates so I think communication as a life skill in general whether that is through your actions through your words I think is...is something that is really important that we teach the students it's something we can do quite well in PE uhm...other life skills...could be organisation- you gotta bring your kit you gotta have it packed...packed in your bag you gotta be on time...there's things like punctuality things like that are...are important. Uhm...time management...uhm...is another life skill that I think is...is something that you know that if you don't have good time management in PE it's not going to go very well for you...uhm...things like we've touched on already, teamwork/

CC- Oh Yeah.

JN- /is...is really, really important...things like sportsmanship...understanding...you know...being a graceful loser...being a graceful winner...all those sorts of things...you know...really important lessons they have got to learn...and you know when they take those skills into the outside world...they are all things that you know...they have to deal with...you know...rejection...and success...you know we deal with that on a daily basis outside of sport.

CC-Mmm so would you see something like...you know...learning to lose gracefully as a skill or as more of a personal disposition?

JN- I think it is something that you learn. I think some people are more disposed to it than others. I think some people you know...find it easier than others but I think it is a skill. I certainly notice that with a lot of my students...you know you might get them at the beginning of the lesson and you know...they are what you call a sore loser they struggle to lose...they don't know how...to compute it in their brain...they can't accept it...and yeah...we don't want to breed people who are happy at losing but equally losing is part of sport and you have got to be able to take that on the chin accept it understand where you've gone wrong what your weaknesses are and then make a plan to improve it...yeah so we have got to teach them to be able to lose. I have seen it over the course of a year where I have taught a group of students...that they have definitely improved and learnt that skill.

CC- Yeah

JN- so yes it is a disposition but it is something that can be worked on and improved.

CC- Ok brilliant thank you. So when you are teaching your lessons and…you are looking for learning...what do you think there is to notice in particular?

JN- ...Ummm…progress (laughs)...I think…you want…you are looking for physical progress...and you are looking for emotional progress...you are looking for…progress with their understanding...so these are all things that you are looking for...and how you see that…is…obviously…you can see physical progress. Maybe the success rate of what particular skill they are performing is improving, maybe they are working better with their team,...maybe when you're asking them about tactics in that sport they can give you better answers...ummm...maybe they are working better with their group,…maybe they were the shy introverted person who sort of stood towards the back and now they more towards the front leading other students...so there are lots of things you are looking for in terms of, are they learning?…all those things we talked about in the first question…what is learning?...they are all the things you are looking for evidence of in the students/

CC- Yeah

JN- /when you are teaching them…so it is not so much a case of you are looking for particular things in particular lessons or you are expecting to see miraculous things happen over the course of an hour but over the course of a term or a year…you are seeing these students gradually moving and improving in these areas.

CC- Would you say that there are some things that are…would you identify some things that are easier to assess in that respect?

JN- Yes technical ability, which is why, historically, that has been the one thing where people have judged students' performance because it is the easiest thing to say 'he's learnt or she's learnt...they have improved' because you can see it with your own eyes and PE teachers...are sort of...they know what a good performance is and they know what a bad performance is so it's so easy to see that improvement in technical ability and it's so easy to see so...take it for example, quite a difficult skill such as a 'lay-up', you can see a student go from lesson 1, they haven't got a clue, they can't do it, they don't know how to do it, to lesson 5 where they're consistently maybe scoring 5 out of 6 'lay-ups'/

CC- Hmmh.

JN- /so that's so easy to see improvement and progress and learning that that's always become that traditional, 'that's what we'll grade them on, that's what we'll assess them on, that's what we'll judge them on' and that's learning...they've learnt in PE but as we've discussed there's so much more to that. Could they coach someone else to do that 'lay-up'? Do they know why that 'lay-up' works? Do they know the tactics behind why you would use a 'lay-up' instead of a 'set-shot'. Could they run through the technique of the 'lay-up'. There are all sorts of things that you could ask and question which, maybe even for a student who can't physically do that 'lay-up' as well, they might understand a lot more about it in other areas.

CC- Hmmh. So when you're planning lessons what sort of things are high on your priorities?...or how would you go about...

JN- okay, so when I plan my lesson I use a sort of theory called, 'DR ICE' and it stands for deepen thinking, role modelling learning, impact on progress, challenge and engagement and I make sure that those 5 things are all in my lesson. With what I'm doing am I deepening thinking in learners? Am I role modelling good practice? Am I getting my students to role model good practice to each other? Am I...is everything that I'm doing having an impact on their progress regardless of what it is? Are they challenged significantly, individually, so am I differentiating the work for them? Are they all being able to work at the right levels? And finally, are they all engaged in what they're doing? And that's how I plan my lessons and I make sure that whatever I'm doing it sort of follows that idea and I find that...any instruction book on good teaching...anything OFSTED want to say...any sort of past research, you can relate those 5 core ideas to it all and then you build things on top. Like you build good questioning on top of that, you build good assessment procedures on top of that, you build good differentiation procedures on top of that...so yeah, I think that answers that question.

CC- Yeah, I know, that's fine. So the first one was deep thinking/

JN- Deepen thinking

CC- /Deepen thinking...can you talk a bit more about that so how might that manifest itself in a lesson, in a PE lesson?

JN- So it's making sure that students aren't just working on the surface but they're working beyond that so for example I've been teaching gymnastics last week...uhm...if the extension is to maybe come up with ideas for themselves being imaginative, being inventive, so I might give them a set of ideas and I say, right okay, I want you to now go away, in groups, and build your own routine and I might give them some specific things as what has to be in that routine but other than that it's up to them...go off...do it for yourself or I might say to some students in a basketball lesson, okay this is your group I want you to come up with a new tactic or a new strategy which you think will help to...to...to win you the game against the other team. So it's giving them little tit bits of information things they can work with and then saying, right, it's down to you now. Have a think about this, this is your end goal whether it's your routine or to win the game or whatever can you come up with some ideas for yourself? It's using your imagination and your initiative to come up with those and to...sort of...go beyond the initial layer of just basic learning.

CC- Okay, brilliant, thanks. Questions...you talked a bit about questions...so in your mind what's the purpose...the big purpose of questions?

JN- Again that's related to deepening thinking so in my lessons I use Bloom's Taxonomy and I try and have a good mixture of higher order questions and lower order questions and I think there's a time and a place for all different types of questions. I don't think that one is more important than the other. Sometimes it's really...it's really the right time to ask some closed, low order questions. You just need to get a quick bit of feedback to check that the students have understood what you've been teaching them and you might want some quick-fire answers so you'd ask some closed questions, reasonably low order. There's other times when you might want to pose a question which is a higher order question where you really want them to…to…to…deepen their thinking in the lesson and that question might form the basis for the whole lesson and you might pose that question at the beginning of the lesson and the students have to think about it, have to work towards it and then they come back at the very end of the lesson and you answer that question between you as a group. So questioning is really important and it serves a number of different purposes in your lesson.

CC- So you say, 'a number of different purposes'...so you said, 'to check understanding'.

JN- Yeah

CC- What other purposes?

JN- Uhmm...so you can use it for assessment.

CC- Right.

JN- So obviously one of the best ways of finding out if students have learnt something is to ask them good questions/

CC- Yeah.

JN- /well that's the key, good questions, not just any old questions so sometimes having some pre-planned questions before the lesson is really useful because you've thought about those questions,

you've thought about the sorts of answers that you want and so when you get those answers coming back you can sort of then maybe manipulate the question a little bit more or a little bit differently depending on how the students have understood that question and that's a really good assessment tool if you do it well.

CC- Hmm-hmmn

JN- You can also get students to ask each other questions so it's really good for sort of a bit of peer assessment /

CC- Yeah

JN- /as well, so that works quite nicely. Questions are important...they're also important just to get them to think about the topic, think about what they're doing and think about how they can improve, so…that's lots of ways you can use questioning well.

CC- Okay, brilliant, thank you. So have you got any particular...I mean again, don't feel that you have to repeat yourself, but are there any particular strategies because you've already talked about the 'DR ICE' thing, but are there any particular...like when you're planning the activities in the lessons, are there any sort of strategies that you particularly think about?

JN- I think that you've got to consider the group that you're teaching. I think in a school like ours, we, for core PE, we split girls and boys and then we split them again on ability so we have a top group and a bottom group, if you like, of roughly about 25 students but sometimes when I've got a bottom group girls group and a top group boys group and depending on who you're teaching, your strategy's...it's almost completely different, it's almost like a different job.

CC- Right.

JN- So in terms of that you've really got to consider who you're teaching and that's going to then dictate what your strategies are going into that. …I think again, in a school similar to ours, your behaviour management techniques have got to be good because the better they are, the better quality of learning can go on. So if you consider those to be your foundation...then you get those right, behaviour becomes a very low priority issue and then you can get on with the good stuff and the proper teaching if you like. If you don't tackle that or if you tackle that quite poorly then that becomes the only issue in the classroom and learning...you know...is a secondary...a secondary thing which is not what we're looking for at all.

CC- So what would you choose to say, like if you were...say, working with a student, what would you say were you core principles or your behaviour management? How would you conceptualise that?

JN- I think you've got to be fair. I think the students really understand fairness. I think being fair is really important. Consistent is really important as well. I think if you say you're going to do something, you've got to follow through...uhm...so it's having the appropriate sanctions in place and following those through, not giving…not giving sanctions that you can't follow through or being too lenient either. It's about letting the students know that you're in charge, not so that they're scared of you or that they

don't...or there's no shy intended, so that they know that if you ask them to do something, that they'll do it. It's about having clear boundaries...you can do this, you can't do this, I expect you to do this, I don't expect you to do this, you can go there, you can't go there. So really clear boundaries and then really clear sanctions for when they cross the boundaries. But also I think behaviour management is as much as people dwell on the negative, it's really about the positive as well. So if you're offering lots of praise, lots of rewards, lots of positivity in your lessons then...and you're rewarding people for doing the right things then...you know, people are going to choose to do the right things. It's social learning theory isn't it/

CC- (laughs)

JN- /Bandura. It's going to work. It does work. Yeah, it's getting that balance right, I think.

CC- Okay, brilliant, thank you. Okay, so what would you say are the barriers that prevent children learning in PE lessons sometimes.

JN- Uhm**...**one of the biggest things in our school is participation in terms of bringing their kit/

CC- Right

JN- /That is frustrating, I think...uhmm........(sighs) there's some students there's a big stigma attached to PE and particularly girls...uhmm. Girls...a lot of girls don't see it as being 'cool' or see it as something they want to do or something that they think they should be doing so that's quite a big hurdle. I think it comes from parents, it comes from the media, it comes from stereotypes...things like that...so I think that's definitely a barrier for us. There's definitely a significant difference in boys' participation and girls' participation. I think simple things that we've identified...uhmm..., it's just simple things like having lockers available for students to use so that they can bring their kit in and they can leave their kit in their lockers rather than carry it around with them all day which, unfortunately we can't offer and that is...that is an issue. Things like having enough time at the beginning...or particularly at the end of lessons for girls to re-apply their make-up, do their hair, make themselves...you know...presentable. Where the boys don't really care, they'll just throw their kit and clothes back on, wipe their sweat off and go back into the playground and get sweaty again so/

CC- (laughs)

JN- /it's...it is really a bit of a gender problem there. And having nice facilities as well...you know...so they've got sinks with mirrors and things like/

CC- Hmmh

JN- /also does...does make a difference and I think we also have issues with girls being willing to change in front of other girls because again the boys don't seem to be bothered about that/

CC- Yeah

JN- /and so having individual cubicles is something that we've looked into to try...to try and help from that point of view...uhmm...so yeah, and what's the question...about barriers?

CC- Just barriers, yeah

JN- I would say in terms of barriers, participation is the one. I think once they get into the lesson and they're doing the lesson and they're participating in the lesson, I think that certainly the staff that we've got at our school, they love it and they have a great time and they enjoy it and they learn and they progress but it's that initial hurdle of getting them there and on board if you like.

CC- Yeah, …Okay/

JN- That's almost a dissertation in itself, I think.

CC- (laughs)/It's a well-trodden path

JN- Yeah, there's a lot...a lot of work been done on that.

CC- Yeah, the stuff I'm not so familiar with is if you like Tamsin Benn, have done research on...uhmm...you know...sort of children of Eastern extraction in/

JN- Right

CC- /school, particularly girls' participation.

JN- Yeah, Yeah.

CC- Okay, so we're watching a PE lesson, it's a really good PE lesson, uhmm...what principles would you say the teacher's applying to help the kids learn?

JN- Okay. I think that you're watching a really good PE lesson, you're seeing all the students active, and you're seeing all the students engaged. I think that's really...I think that's really important. I think that if they're...I not saying active 100% of the time but if they're...it's a PE lesson at the end of the day...it's not a maths lesson...it's not an English lesson...they're not expected to be sat down in their seats, traditionally working. I think it's an opportunity for them to be active, it's the whole point of it is that they're active and they're learning through activity. So I think being active is important, being fully engaged in what they're doing is really important. I think seeing learners being challenged at their own level is really important so what I'm referring to there is good differentiation, so giving students the opportunity to progress at their own rate in terms of what they want to achieve so however you...however you...want to differentiate, there are lots of different ways you can do that but yeah...being appropriately challenged so they are making progress. You're not pitching something that's way too high for half your kids. You're not pitching something that's way below them so they're just doing it easy, going through the motions...it's got to be pitched right. I think it's just enjoying themselves, having fun, I think that's really important in PE I think that's something that is associated with our subject and it always should be. I think...I think, why not? You know...if you can be learning, if you can be progressing and you can be having fun and enjoying yourselves then yeah, that's what we want to be doing.

CC- So would you go so far as to say that enjoyment should be like an aim?

JN- (pause)…No, I think it should be a by-product. I think if you do all the other things well they'll enjoy it anyway. I don't think you go into a lesson going, right my priority today is make the kids enjoy themselves, I don't think you do that. I think your priority is obviously progress, learning, teaching them something valuable, you know...look at all those things. Can we improve their leadership qualities? Can we improve their coaching? Can we teach them something new about the bones or the skeletal system or energy systems or stretching or whatever it can...are we teaching them something new? Are we giving them some kind of life skills and character skills? Are we improving their fitness? That's what you want to be doing but if you can enjoy yourself as a by-product of doing all that, perfect, that's what you want.

CC- Okay, you talked quite a bit about differentiation. Would you mind just going back over that and talk to me a bit more about the detail of how that might be brought about.

JN- Yeah, I always see differentiation as 4 sort of areas. I think you can differentiate by support in terms of the support that you give students or the support that they give each other or the support that perhaps the TA might give certain students and that can be in the form of the work you give them or verbal support or physical support...sometimes I might hold a student up in a handstand and with another student I won't so any sort of support that you give them or don't give them is a way of differentiating. I think the resources that you use is a way of differentiating, whether that is an adapted worksheet or for an example, a badminton racket. We have about 4 different size of badminton/

CC- Oh Yeah

JN- /racket. So a really good way...you've got a resource there, you've differentiated it for different abilities, the shorter the handle racket-the easier it is. The traditional size-the more difficult it is...uhmm...different size rugby balls...you know, all different types of resources...I mean we've got so much different equipment in PE where possible we differentiate that suit the groups that we've got or even individuals within the groups that we've got.

So you got support, you've got resource, you've got task...so the actual activity that you're doing with your students...how do you differentiate that? You certainly don't want to be doing the same thing with all your students/

CC- Hmmh

JN- /you want to be maybe giving different groups of students different tasks to do based on their sort of ability levels or perhaps roles within a group where you might say right you 5 students I'd like you to be the leaders today because I want you to be helping to teach the other students what to do in certain situations. So the tasks that you set out, the activities that you do, definitely. And then finally you've got the outcome so...what do the students produce? And they're all going to produce something slightly different depending on what their ability level is, which is fine and a lot of people say to me that that's not differentiation well it's not *per se* but if you then do something with that then you can differentiate for the next lesson. So if you know what the students have achieved, what the outcome

is for that particular lesson then you go, right okay, now I know that we need to do this in the next lesson. A great example of that is say for an example is an exam/

CC- Yeah

JN- /or a mock paper...you can't differentiate that it's...the paper is the paper, they all sit down, they all do it, okay, they all get a different grade at the end of it so then is that differentiation? Possibly not but then what you do with those grades...you can then differentiate and say right well this student needs intervention in this area, this student needs to improve in this area and there you go, another sort of way you can differentiate for your group.

CC- So you're talking about differentiation the teacher's responsibility in terms of the design of the task.

JN- I think...I think...I think the teacher has a big responsibility about thinking about differentiation because I don't think students do it naturally. So you've really got to provide the resources or design the task or give the support because the students won't do that for themselves and a lot of the time they won't know what they need as a teacher should…so more often than not I like to think that they do know what each student needs so that they can give them that support or particular resource or whatever they might need.

CC- Okay, brilliant. So...uhmm...in terms of when you're thinking about…sort of...learning intentions for lessons do you have any principles around that when you're thinking about...uhm...yeah...learning objectives for lessons?

JN- We have set schemes of work for core PE uhmm...and I don't like to sort of force them upon my staff too rigorously. I like them to be there for staff to use and to look at but I like them to put their own...sort of spin/

CC- Yeah

JN- /on it if you like. I like them to put their own personality on the lessons so I would never say right that's your template, that's the lesson, go and teach it as it is. I would much prefer them to say right you're teaching a badminton lesson, the focus of the lesson is the overhead clear shot, you know...you go and put your own personal spin on that I trust you...

you've got the subject knowledge and the pedagogical knowledge to be able to go on and deliver a really good lesson in the overhead clear shot. So in terms of lesson objectives, I think lesson objectives are really important. I think...you can share them with the students at the beginning of the lesson, you can sort of drip feed them to students throughout the lesson or on occasions I done it where I've not told them at all and then I've got the students to guess what they were at the end of the lesson/

CC- Yeah, yeah

JN- /so…what do you think…what do you think the objectives of today's lesson were and they guess them at the end so the whole point is that they're hidden. So I don't like these schools or departments

where they say right, you have to have three learning objectives, they have to be on the board at the beginning of the lesson, the students have to write them down, they have to be 'most', 'should', 'could'...I don't like that. I like teachers to have an understanding of lots of different ways you can provide learning objectives and then use them as they see fit and again it all comes down to the principles of 'DR ICE'. Are you deepening thinking? Are you role modelling learning you practising progress, challenged, engaged and if they do all those 5 things in that lesson then you'll use your learning objectives as you see fit.

CC- OK brilliant thank you so much

Jude Nobel- Second Interview: 7 July 2016

(N.B. All names used are pseudonyms)

CC- Right brilliant thank you so much for doing this. In this interview I would like you to tell me about a lesson that you taught recently where you felt that the children leant really well.

JN- OK the lesson I have in mind is a Year 7 lesson...it was to an all boys group…can't remember maybe 25 no...maybe 20-22 kids…something like that. The group is itself is a top ability group…so...in our school we split the core groups into boys and girls initially and then we split them again into a higher ability boys and a lower ability group and then the same with the girls…so…we tend to find that helps a lot better with differentiation and making sure that every student progresses as much as they can …so we try and put them in an environment where they can do that…so it was a top ability PE group...Year 7 boys…a lot of them super keen for PE...they love PE...a couple sort of…..quite good at PE but take a bit of coaxing along and encouragement…bit more encouragement…and we were doing badminton...and it was...it is one of those sort of activities where…it is not your football or your rugbys… or…it is not something where kids might have particularly done it before...or would do it outside of school...which I quite like because what it does it brings everyone to a bit of level playing field...it means that they are all...they are all coming into playing badminton very much with similar ability…and yeah a few might have played it in their back garden or with their dad every now and again but most of them won't have played it at a particular level...whereas if you take something like football…even in a top PE group in Year 7 you have a huge spectrum there...you have got kids who might play for Gillingham or for their county all the way down to kids who just kick a ball about with their dad at the park and that is a huge gap there...in one...in 20 kids. Whereas in badminton you don't get that...which I like that...

so badminton...I was thinking right ..what is the best way to…to…to get them engaged…what is the best way to teach them enough…of the basic rules…for them to be able to…have some sort of meaningful game…whereas obviously learning as well…what is the best way for them to...start to work out some of the tactics and ideas and positionings on the court...and things like that for themselves…what is the best way for them to actually…get used to the shuttlecock…get used to the racket...and that sort of thing. So…it was the second lesson that I think they had done…in badminton

so I had an idea of what they could do…so what I did is...we...I split them into four ability groups...so I actually put them in…in different colours...and in our sportshall we have actually got 4 badminton courts...so I was able give each group a court each…first thing we did was...we did a warm up ..I made sure that it was a student led as possible...we have done quite a lot of work this year on what constitutes a good warm up…understanding why we warm up…different muscles that they should be using and I sort of gave them an overview of the lesson… *(At this point the interview has to be moved to another room as the one we are in has been booked).*

Now we have reconvened in another room.

CC- You were talking in terms of the warm up?

JN- I had been encouraging them to do a student led warm up so...we…throughout the year we had been talking about the umm…benefits of how…warm up why you warm up different sorts of muscles. I gave them an overview of…umm…the types of things we would be doing in the lesson. Then I left it up to a particular leader in each group to then to...then lead that warm up appropriately. Umm…got to say I was pretty impressed with what they were able to come up with…they were…they made sure they did a good pulse raiser…all the kids were engaged there was some clear leadership…going on there…some really good communication…and ideas being shared between the group. Umm…they were...really familiar with doing some dynamic stretching and mixing that in with some static stretching. They were obviously very aware of the…the upper body…demands of...of badminton…so making sure they were stretching their…upper body quite well. I sort of…would go round each group and just question them a little bit...on the types of muscles they were stretching...some of the names of the muscles...Umm we had a little bit of a discussion with each group individually about why they were warming up...what the purpose of it was how it was going to help the lesson and that sort of thing and so that went really well that was good. And then I gave then a brief overview of the line markings of the badminton court what the lines were, what the lines were called the base line and the service line and things like that what was the singles court and the doubles court…very very briefly and then we got into a game which was…I purely designed it to work on (a) familiarity with the court…and (b)…their footwork and team work I suppose and we've got these extra-large shuttlecocks I don't know if you have seen them?

CC- Yes

JN- They are huge actually

CC- They fly very slowly?

JN- you don't use them with a racket at all…you've got…you sort of…basically throw them over…so I pitted the two lower ability groups together against each other so it was like 4 or 5 versus 4 or 5 in each court and then on another court the two higher ability groups. And the idea was they had to throw it over the net but when they had the shuttlecock they had to stand still they could pass it between each other and then throw it back over the net…and it was just a nice little sort of net game...

very basic net game they got used to the shuttle cock the name of it...some of them still call it a ball and they got used to that...so they got used to…the court marking they got used to moving around and the agility that is needed for badminton...they really enjoyed that it went really well...so once they had then we brought them back together again and I introduced them to the racket and the grip and how to hold the racket...how to hold the grip...and some of them...what I had done is I'd give different groups different lengths of rackets so the students in the sort of lower end of the group would have the really short rackets with the short handle and then the students in the top end had the big…full size rackets…and we have those medium sized rackets in between.

CC- Yeah

JN- I mean when you are doing badminton it is really important that you differentiate your resource like that…because it makes such a difference…the amount of times I have seen a student with a full size racket and they just cannot serve they cannot hit it and you think what is going on here? And then you give them a smaller racket and immediately...no problem every time every time they are hitting it all time...

CC- Yeah

JN- so it is really important that you do that and what I like to do is I will dictate to them which racket I think they should use...but if I think that actually they need to move down to a smaller racket or they probably should move up to a bigger racket then...I will sort of do that as the lesson is progressing...so...it is important to have that as a starting point I think. And then...so the next sort of phase of the lesson was basically getting a rally going…so...I very very quickly showed them the serve technique but I did not want that to be the focus of the lesson. Because I really don't like starting badminton lessons off with the serving…because there is so much more to learn…I think if you can just get the point started and actually get them rallying over the net then the serve can come later...so we got them basically in pairs on half court each and they would be basically…getting the rally started and then rallying over...we had a little completion to see which pairing could get the most shots in the rally ..which again in a Year 7 top group...competition is so important to them…and it really brings the best out of them...they love to have that element of, "oh how many did you get, how many did you get I want to get this I want to get that" and it really motivates them and pushes them forward...I am not saying to the detriment of…of the other students or to the lesson but just to build that bit of friendly competition a bit of motivation it works an absolute treat...so we did that and then…sort of brought them together again...and we…the the main focus of the lesson was the overhead clear shot which is always the first main shot that I would teach to the students…so we looked at the technique of the overhead clear shot...how we should do it why we should do it the...the tactical aspect of using it…the technique involved...and there was a point where I did a teacher demonstration so I try...I picked out a student who I knew could do it quite well as a bit of a demonstration and I had a little rally with him and we…I was…I was……I purposely did it wrong and got them to say to me what I was doing wrong and then they sort of explained to me what I was doing wrong so I started to do it right so they could see the benefits of this shot and why it was working. So then the challenge was to then to go back to

their pairings and focus purely on the overhead clear shot and see how many rallies they could get with the overhead clear shot

CC- Mmm

JN- …….I am trying to think what else...what else was in the lesson…….and then …………………I think the lesson moved on……I think at that point as well I also had some resource cards…which…basically like in words and pictures showed the overhead clear shot and showed...how it was done and what the technique points should be

CC- Mmmm

JN- Umm and they were they were working in threes…and so there was two...two rallying with one who had the resource card

CC- Oh yeah

JN- so they would stop the rally and do a bit of peer coaching session where it is like you need to get more side on or hitting it at a high point or whatever the particular thing that the student had picked out and then in their three so they would swap round so someone else would then become the coach

CC- Mmm

JN- and then the other two would rally and it sort of progressed like that...and then I brought them back in for a mini plenary and they…and we had a question answer session really about…what they had learned...so…so…..what…what…what did they…..learn about the overhead clear...why did they use the overhead clear…the technique or the coaching points…for the overhead clear…I often…with Year 7s I often pose them the question of…if you were teaching a Year 4 or a Year 5 student what would you teach them to do...because I think that sort of that gives them a clear idea of...alright so I am the coach and…I am the important person and what do I need to ..what would I say to them…and that…I tend to find that clicks with them and they understand alright yeah so I would tell them to this and I would tell them to do that…so if they can imagine themselves in that coaching situation they tend to…that brings out their understanding a little bit better…so yeah then I think…getting towards the end of the lesson now…..we…I think I introduced the scoring system to them very briefly....and then it was a case of…umm…If I remember rightly...I got them to...they had to do an overhead clear rally and they had to get 3 or 4 shots in and then the point started…

CC- sure

JN- So they would do...sort of...they'd have to…and if they didn't get 3 or 4 shots…I can't remember what I said now…I think it might have been 4…say it was 4…so if there was not 4 shots and...and…then there was no point scored and they had to do it again…so it was one...two...three...four...then the point starts and then they can sort of use whatever shot they like then

CC- Yeah

JN- and they were doing that in pairs…on a half court again...along the hall...so yes and then...so that set it up quite nicely I think…and then my idea was moving into the next lesson would reinforce that overhead clear shot a bit more and would introduce the drop shot because that moves quite nicely on from the overhead clear cause with the overhead clear the idea is that the students are forcing each other towards the back of the court and they're…creating that sort of space at the front of the court and it's getting them then to understand right ok I have been forcing my opponent back he has been forcing me back…who is going to give first sort of thing…we both have got this space at the front of the court now…who has got the ability to just put a disguised drop shot in there...so that would have been for the following lesson I would imagine...and I think for the very end of the lesson…I had a differentiated task for them to do…I had a different question set for each of the 4 groups

CC- Right

JN- and as a group they had to answer that particular question...trying to think of an example

CC- Oh yes that would be helpful but don't worry if you can't

JN- Mmmm……….It would have been something like…mmmm…name 5 coaching points for the overhead clear shot

CC- Sure

JN – Or…..what is the difference between a singles court and a doubles court in badminton…it would be something like that…and the lower ability group will have had a slightly easier question and the questions gained in difficulty

CC- ok

JN- ...as they went up to the higher ability group………which in hindsight…probably…wasn't necessarily the best thing to do because I had differentiated the groups based on physical ability but then I had also differentiated the questions which were academic on...still on their physical ability

CC- Yeah

JN- …so…just because they are in the top 5 kids in the group...physically…does not mean they understand it as much as someone who is in a bottom group…so that is something I might do differently next time...umm how you do that...is a difficult one…might be a question or re-grouping them or maybe perhaps...posing the same question to each group

CC- Sure

JN- …But so…so in general that was the lesson that went pretty well

CC- Brilliant…that is great thank you. Can you just reflect on…I notice that you have drawn out a difference between being academically able and practically able...would you just rehearse that…..how do you understand that in terms of kids ability?

JN- So I think…when we spoke before we…I think I mentioned the way that we assess students in PE

CC- Yeah

JN- and we have put a new framework together over the last 18 months which very clearly sort of…states the differences...or what we are looking for…in a student in PE

CC- Yeah

JN- and it is not just the traditional physical attributes…Mmmm...so we look at things like their leadership, their coaching, their technical ability, their understanding of tactics, their application of theory, their fitness,……their character...and…their sort of...commitment and their motivation their mindset towards PE a positive attitude and all those sorts of things so we look at all those strands and obviously you don't look at all those in a single lesson but across the course of the year in different activities they are the things we focus on…and I think that is a good thing because…I think…if you go back 10-15 years you…you would see a lot of...a lot of students in PE children being judged purely on their physical ability…so...yeah…we assess them...as a more rounded student I think…these days and when we look at PE ability we don't just look at how good are they at kicking a football or how good they are at hitting a shuttle cock...or how good are they are at passing a rugby ball...we look at the more rounded student and what they are offering to a PE lesson…so when we are talking about the difference between a practical student and an academic student...well obviously you can be both…but sometimes...you might just be one or the other…

CC- Yeah

JN- You often get that...you often get students who are academically not as capable…and…may even cause problems in other lessons around school...and might have problems with their behaviour…but when it comes to PE and they are absolutely brilliant...you know...I…sometimes in the staffroom when I hear a certain name mentioned and the other staff sort of...groan…I say…same kid…that the same kid...

CC- Yeah yeah

JN- I have never seen anything like that sort of thing...whereas on the opposite side of things you get a child who is...might be very academically capable and...they are not a problem anywhere else...but when they come to PE they are not necessarily badly behaved but they are lethargic…and uninterested...and maybe not as inspired as they might be…and then it is trying to get the best out of those students…I don't really know how to answer your question…

CC- Well no…

JN- Yeah it is more of a discussion isn't it?

CC- Yeah it is an incredibly intractable…question

JN- I would like to think that…we try and encourage them at a...to be a more rounded student in PE…definitely…more than…certainly more than when I was at school...I remember…I remember that was purely about how good you were

CC- Yeah

JN- when I say how good you are I mean like…physically technically…how good were you…rather than looking at all the other aspects…I mean there are so many students who…they might not be the best player on the pitch...in a particular…or on the court in a particular game…but their leadership skills might be...by far the best they might understand the tactics and they might understand/ they might have really good communication skills. And so they are just as valuable in sport as other people …When you look at the world of sport...and in people involved in the world of sport…..how many are actually the performers…the athletes? Very few. They are the people we concentrate on but you look for example at Wimbledon at the moment or the Euros or whatever and you have probably got as many coaches as you have athletes…you have probably got physiotherapists, you have got nutritionists, you have got umpires referees...I mean the amount of people around sport…compared to the number of competitors…is…it far outweighs it if we are teaching the principles of PE and sport why not teach the whole lot rather than just the competing performance side of it?

CC- Ok brilliant thank you. So…thinking of the plenary…what in your mind is the value of that in terms of the children's learning?

JN- I think for me…..for me for a good quality plenary…wants to...draw the last hour or so's worth of the lesson together…it wants to…solidify in the minds of the students what they have learned...umm and it wants to give them that sort of…that final point of...right I am leaving the lesson now and this is what I am taking with me…this is what I have gained during this lesson...and often if you don't do a plenary or you don't do a very good plenary...they can sort of leave that lesson...shoot off to the changing rooms…and by the time they have got changed it is gone...they have forgotten it or it is a blur…so…it is just sort of…it is knitting it…knitting the lesson together...and giving the students an opportunity to reflect on what they have just understood and what they have learned…and maybe giving them an idea…of right I get that I get that and I get that…I am a bit unsure of that still…and giving them that opportunity to sort of... understand what they have gained from that last hour...sometimes you can…you can use it as an opportunity to a bit of informal assessment and often I will get the students to maybe assess themselves…or maybe I will do a bit of assessment with them…so they can say…right this is where I started the lesson...at...this is what I…worked on or achieved during this lesson...this is where I am now…and then that gives them a solid …sort of...something that they can take away with them and say...yeah I've learned that I've done, I've got that...I've progressed...I've made some progress during that last hour…or hour and a half. So I think for me that is the importance of the plenary and if you do it well...then...basically…it really…it adds…value to the last hour hour and a half of what you have done if you don't do it too well they can often leave and within 10 minutes they have forgotten that last hour. So it is important a good plenary…and it is…important I think that you do it well.

CC- Ok brilliant thanks you very much. And the activity with the big shuttle

JN- Mmmm

CC- What did you see the kids...what did you notice when they were doing that?

JN- I think they…for a lot of them…it would have been the first time they would have actually stood on a badminton court…

CC- Yeah

JN- so them to actually...it is all about them getting used to like the height of the net…the net itself...trying not to touch the net...because obviously that is something…that they...I mean Year 7 boys they are just rough and tumble…and you can imagine them ..flying to the net or…not understanding the concept of not being able to cross the net or touch the net…so again…getting that…and...and...so it is good to get that point across in a more relaxed informal setting rather than when you actually have the rackets and are playing a game...or something like that…so yeah...that definitely…it is good as a communication tool. It is a really fun game…so immediately...what you want to do is if you are introducing a new activity like badminton to all of them and they don't know what badminton is…immediately they are thinking Badminton is great, Badminton is fun, Badminton is this, badminton is that…and...all of a sudden it is something they want to do and they want to do more of and they really get into it…so that was definitely part of my thinking...I wanted them to be communicating with each other in their groups…I wanted them to be making mistakes…and then having their team mates explain to them so...if I called...if I called oh that was out or that was in or…your foot was out or in or whatever…then I would then...pass it up to them...and say well...can you tell him why/what the problem was...or can you tell him what he did wrong...and so getting them talking communicating and discussing it themselves...and the other thing is ..getting them just to…just to think about their footwork...and the space of the court…how big is the court…how much room have they got on the court…and it just familiarises them with that…and then once...once you have got that…then…that can always be like a nice little 5 minute fun activity at the start of each of each badminton lesson

CC- Yeah.

JN- Just to get them back in the mindset of it before you bring the rackets in and the traditional sized shuttle cocks and that sort of thing.

CC- And when they were playing in the lesson did you notice anything in particular that they were doing in terms of strategy or technique?

JN- A few groups quickly…because they had 4 in a group...if I remember rightly...a few groups quickly decided that they wanted 2 at the front and 2 at the back...

CC- Yeah

JN- which was great...a few of them…yeah to spread themselves round the court...a few of the sort of stronger lads tried to take the lead a little bit and be the one who would throw it over the net…a few of them were getting the idea of maybe just a little sort of shot over the net to try and catch the team out…..or maybe a really long shot towards the back of the court

CC- Yeah

JN- so they all…it gave them the opportunity to pick up badminton tactics...like a little drop shot ..like an overhead clear...when...when…they perhaps would not have been able to do that with the racket and shuttle cock because they would not have had the skills to do that yet.

CC- Sure

JN- So it does allow them to understand the game...and bring tactics into the game...like for example doubles tactics and where you might stand...and having people front and back or left and tight...without...needing the actual…umm...technique or...pure skills to be able to do that...so it is a nice way for them…and then as they...the lessons progress...over the next few weeks...and they build up those skills…then they already have that bank of tactics and understanding and ideas...to draw on...and so now they can go...well now I can now physically do it with the racket...lets try the drop shot and now I can physically do it let's try an overhead clear or a backhand...or whatever...so it does help to to to build that quite quickly.

CC- Ok brilliant thank you. And you said that you had them rallying in pairs.

JN- Yeah

CC- How did they get the rally going...if they find the serve difficult?

JN- Yes so if they can serve it great…and like I say I will touch on the serve very...very briefly...just a quick demonstration of how to serve it…but I don't want to dwell on it…usually I will show them...I will do a full lesson on serving sort of…four or five lessons in

CC- Sure

JN- when they have a really good feel for the game

CC- Sure

JN- …and…but I don't...thing is…if you…in my opinion if you teach serving as a first lesson…and you have kids who can't do it where do they go from there? The lesson is dead.

CC- Yeah

JN- So ..you have got to have...you have got to have somewhere for them...for it to go. So what I do is…I show them the serve very briefly…Some will be able to do it…comfortably...they might choose to do it backhand or do it some forehand…that is…usually it is about 50% can do it and the other 50% might struggle…so what I say to them is…for some reason…and I am not really sure why...some of them find it really easy to actually balance a shuttlecock on their racket flick it up and then serve it...so I allow that…that is not a problem...if they can't do that…I don't mind them actually throwing it over the net to start the point...so just as long as that point starts and they can get into a rally...then for me that does not matter allow and we can focus on the serve a little bit later on and...the finer sort of...details of it…but like I say if you…if you…start off with the serve and you say right...this is the technique you have to use and these are the options you have got…and then you find that they can't do it...then

where do you go for there...you can't get a point started...you can't do anything...all you have is a kid who is just…(a) embarrassed (b) struggling…demotivated...and just can't do a serve

CC- Sure

JN- so that is it...that is the lesson done...so for me…also for me...once you have done 4 or 5 weeks of clears or rallying and this that and the other…then generally they have picked up enough to actually start serving it themselves anyway and even if they can't…when it comes to doing serving they are so much more familiar with the racket and the shuttlecock that the serve comes a lot more naturally to them…and they then also then understand…when you start serving...they understand why it is good to do a little short serve or why you might do three short serves in a row and then throw a long serve in

CC-Yeah

JN- They understand that whereas if you teach them that from the very beginning they have no idea what...what benefit they are going to get from a short serve…or a long serve because they haven't played the game yet…so yeah for me…..going back to your original question...just the point going…throw it over…flick it over…any technique you like get it over and get that point started.and just get them rallying and hitting it and that will naturally…

CC- and they weren't scoring at that point?

JN- No they weren't scoring at that point…it was...the competion was…it was a team sort of pairing as a team…..how many can you get so they were effecively helping each other out…and saying right ok…I am not against you I am going to work with you to get as many…and each pairing was working against every other pairing and the best was about 20 shots which was pretty good...

CC- Yeah nice...that is good. And would you mind rehearsing...you said that you would go to the overhead clear next…

JN- Yeah

CC- what was your thinking behind that…why do you feel that is the best thing to learn next?

JN- Oh…the overhead clear is the bread and butter of the badminton shot basically...and it's…if you watch a professional...it pretty much becomes an overhead clear battle before the point really then...engages…and also…with the overhead clear it is sort of…the fundamental starting point for a lot of other shots...Mmm...so once you can do the overhead clear then...you understand the idea of doing a drop shot. So..so that naturally then comes next...because...there is no point in teaching a drop shot …unless you understand the overhead clear shot…because the overhead clear shot…draws them away from each other…forcing your partner to the back of the court to create that space for the drop shot…so...that has to be first…then you can teach the drop shot…So the drop shot then...is the shot where you disguise it as an overhead clear shot…but it then just falls over the net…so what is the natural next shot to teach…the net shot…because you are teaching the kid to drop it over the net...so their opponent then is thinking…well if I reach that drop shot then I am going to be...my next

shot is a net shot….so then…So I need to play the net shot...so then you teach the net shot...the net shot is a shot where you just...just dink it over the net so what is the next shot to teach then...the lob shot…because what you have got is…you have got a student at the front of the court...they have just dropped it over...what is their opponent going to try and do...a big lob shot back over their head...so each shot naturally works off the next. So if you imagine…we sometimes with the older students do what we call a choerographed rally...where they have to know what shot to do in order

CC- Oh yeah

JN- …..so if you are talking about a choreographed rally like that it always always starts with an overhead clear…so...if you are talking about a choreographed rally like that…that is the best shot to start with and it naturally progresses on

CC- Ok great thank you. And if we go to the end of the lesson and they were playing the games…when you were watching their games what did you notice and what did you feel they needed to learn next?

JN- so they would have...at that point they definitelty needed more work on understanding the scoring systems…which obviously...it was…I mean…it was…a...at that point that is not the main focus but you want to give them some idea of how you do score a game…

CC- Mmm

JN- ...and that will progress over the coming weeks...so that was definitely something you would want them to think about…another thing that always happens...and which is why…..if you…I sort of…I enforced the rule of them having to get 4 overhead clears before the point starts...because

CC- Yeah

JN- what tends to happen is…you spend a long time focussing on as skill like the overhead clear…or a particular technique and then you put it into a competition or a game environment and that just goes out the window...and all they what to do is beat their mate and its...they will do whatever they can...and they will revert to...all sorts of terrible techniques and tactics...and...because it is just...that is what they are like…they're kids…so if…if you do condition it slighty...and put in like a little rule in there like…ok the point does not start…until you have done 4 overhead clears..well you are hoping then that just because they have done 4 they are not going to revert to…a load of poor technique…they are going to maybe...try to and continue that overhead clear rally and try and force their opponent back and try and win the point that way…so you are encouraging them into good habits really…and good tactics and good good…badminton play basically…that is the idea behind that…..so that what is what I was trying to achieve...so yeah adding the little conditions into the games is definiately...definitatly worthwhile.

CC- In your mind now...if you have them for badminton again next week...what do you think you will do with them then?

JN- Umm so…I was really happy with the groupings I thought I got those right..so probably stick with the same groupings…ahh...a lot of people don't actually use bibs...but I really like…even in...even in

badminton where…which is not like an invasion game..like football rugby or basketball...I still like them to be wearing a coloured bib...because umm…it gives them a sense of identity and makes organisation so much easier…so I will get them in their same colours…same bibs...same teams…I'll probably get a different person in each of the 4 groups to lead the warm up…maybe someone who is a little bit less confident…but because they have seen someone do it the week before already..…they will have that...those ideas and the confidence to do that

CC- Yeah

JN- so probably run with that…we'll probabaly go back to the game with the big shuttle cocks again as a 5 minute refresher…refresh the court lines…the net…the space...little few of the little rules around that maybe...get different teams to play each other compared to the week before...so they are playing different teams

CC- Oh yeah

JN- Umm and then I'll probably spend a bit of time refreshing the overhead clear and then we will progress that onto the drop shot…and talk about how they are linked together...how one benefits from the other…umm….and then we will probably…what I'll do is……I think what I'll do is...I'll get them to…do a rally...like a…like a 4 shot overhead clear rally

CC- Yeah

JN- and then it will be a case of…can you drop shot your partner…who can do it first who can get that technique in and if they can get a drop shot in...and if they can get that drop shot in...I'll maybe give them 2 points and if they just win the point without the drop shot...maybe give them one point…so it gives that extra motivation to attempt a drop shot…but also they have got to realise that the drop shot won't work unless they have done some good overhead clears in the first place

CC- Yeah

JN- To push their opponent to the back of the court…because one thing you find with Years 7s is...they don't always have the arm strength to really get that shuttlecock to the back of the court

CC- Right

JN- So it is about trying to really...get them to get the height and the distance on the shuttle cock to really get their opponents back far enough to create that space for the drop shot…so probably go among thoe sorts of lines

CC- Ok brilliant thank you. When you were watching that lesson...what were the things that surprised you...for good or bad.

JN- I was pleasantly surprised with the...umm...engagement with badminton...because you get Year a Year 7 group who are starting badminton for the first time…you don't always know how they are going to take to it.

CC- Yeah

JN- Especially if they have just come off the back of a scheme of work on football or rugby or basketball...and…with the top group that tends to be the sort of thing that they really love and are engaged in those invasion contact sports...so...you…come to a…net game with no contact and they know that the other group might be outside doing football...it is like…Ohh...how are they going to take to this...how...and that is why it is so important to have that immediate sort of form of...engagement, motivation and fun aspect to it and really...you know...get their...get their attention with it…and yeah from the very beginning they loved it...every minute of it…and that pleasently surprised me...they were really keen to progress and learn about it and…I don't understand this Sir or can you explain this to be Sir...so that was quite nice...umm

CC- Were there any specific things where...well a critical mass of them made progress that you noticed? Where were they progressing?

JN- Umm ………………………..I think...I mean...with a lesson like that...technically they progressed very quickly because…they are going from literally nowhere to...to…often quite good technique within an hour.

CC- Yeah

JN- so the next lesson...so the next lesson you won't see that speed of technical progress...because it always slows down doesn't it...the further you go on with it…so yes you do see a lot of technical progress with it...umm……..you see…you see a very …mixture of students who immediately…understand the game and the rules very quickly...and they only need to be told once...and they go oh yeah that make complete sense. I get that. these are the lines these are the rules…this is what you can do this is what you can't do…and then you get half the students who just go Phew…this makes no sense to me at all...what is this game all about…so where do I stand sir...and what do I do? Is that a point? Is that my point? Is that his point? So it is interesting…I suppose from a theory...tactical…rules...knowledge point of view

CC- Yeah

JN- You do get very split...split group...and it is not necessarily…..the more academic and the less academic…it just sometimes with some students it clicks and sometimes it doesn't click...and so that obviously takes a little bit of working on as well as the lessons go on

CC- So in terms of understanding the rules of the game. How do you think that the kids learn that?

JN- I think predominantly by doing it and making mistakes…obviously you have got to give them the basics to start off with…but…you don't…you have got to avoid giving them too much too soon..as well…because if you...if you just blurted out all the rules…of what they can and can't do...at once…they won't remember any of it...so you have got to decide what is the most important things here…what do they need to know…what do they perhaps not need to know initially…and then it is just a case of sort of…scaffolding it and drip feeding it in...as the lessons go by really...and then…it is quite...you'll quickly

notice when you need to…approach.……when maybe you have got to a point…where...you need to bring in that particular rule...or you need to mention that they can't do that...or you need to mention that they should be doing that...and you...you can pretty much judge it quite quickly...when that needs to happen...and sometimes it is case of...right everyone stop I have got to tell you a new rule and...so we have got to this stage now and everyone you need to be doing this particular thing…or...so it moves on quite quickly…

CC- Like serving overarm *(Both laugh).*

JN- Yeah exactly...so from now on...all serving underarm…so you do have that...but…on that note as well...it is really important that from the 'get go' you tell them…when they are and aren't playing official rules...because what you don't want them to do is...you don't want them to go away going well no Mr JN told me that was a rule in badminton…and then…well no that is not a rule in badminton…so you don't want that confusion...so you need to be really clear of…we are playing this way for this reason but that is not the official rule...

CC- Yeah yeah

JN- and then so you tell them what the offical rule is

CC- Yeah the difference between rules and conditions

JN- Exactly yeah

CC- Ok can we go back...in your mind what makes for like…a really good learning objective?

JN- Umm…I think it has got to be…it has got to be challenging...umm…but it has got to be achievable…..and I think it has to be something that...they where they all understand where they are trying to get to...I think sometimes it is really appropriate to share it with the students at the beginning of the lesson…and say look this is what we are aiming to do this is what you are aiming to achieve…..this is what it is going to look like…and sometimes it is good for them to discover that as the lesson progresses and then have that as a discussion point at the end...and say well what have you achieved today…..what do you think...what do you think the point of todays lesson was...what do you think the outcomes were meant to be today…what do you think you were meant to be able to achieve today...and then that can create a nice discussion at the end as well…obviously the teacher has to have…a really clear idea of that they are aiming to do but…not always share it with the students...all the time...or it does not always have to be so overt in your face

CC- Mmm

JN- ..at the very beginning of the lesson...this is what you are doing…this is what you will learn…..but um…yeah...I think...I think that a good objective has to be…pitched at the right level...achieveable to all students…differentiated within the groups…so some...with the understanding that some students will learn and progress in some areas quicker than others…umm…so yeah I think that is what you would be looking for in a learning objective learning outcome

CC- Great thank you. Just the last thing…..When children are learning...what do you think is happening?

JN- Quite a deep question. *(Both laugh)………*.I don't know really...I suppose…I don't really know how to answer that

CC- If I give you an example...one of the things you said earlier was that if you don't do a plenary...they will go and then in 10 minutes they won't know it. What makes you say that? What makes you think that?

JN- I think you need to consolidate the learning...so I think…that is why I try to...with…when you are running a series of lessons I think it is important that the next lesson runs smoothly on from the previous lesson…and there is a little bit of overlap there…so that…they are quickly back into what they were doing at the end of the previous lesson and I think you have got to sort of…when you plan your lessons try not to plan…individual stand alone lessons but try to plan it as a...whole part and then each lesson is just a little bit of that…..so how do I know they are learning. Is the question how do I know they are learning?

CC- No more the idea that…..Do you a kind of mental map about what happens when they are learning. If you have done a really great lesson…what do you think is happening in the learners head and body……..when they come back the next time…..they have some memory of it

JN- I think it is…I think…with any sort of learning it is that repetition of what they are doing and the reinforcement of good practice and…the sort of…..I suppose the ..negative reinforcement of bad practice...so it is like…and it's…I suppose it is the level of feedback that the teacher is providing… maybe on an individual level or as a class …and I suppose the more they do it…and the more they get positive reinforcement for that and positive praise for that…the more that will continue to do it and the more they will progress...and then…as the teacher is adding in bits of information...then they are…sort of building on the foundations that they have already got…and then…I suppose that is how learning occurs isn't it…

CC- Yeah

JN- constantly building on what you have already created…as well as consolidating what you have done initially…that is why I think...it is so important like the example…with doing the rallys at the beginning and looking at the overhead clear...just get them playing as much as you can

CC- Yeah

JN- get them doing it...and experiencing it for themselves…get them making mistakes…that that...definitely has a big impact...if students hit it in the net all the time or put of the court all the time they will quickly change what they are doing…even without you telling them…they will make subtle changes and subtle differences…you will need to go round and offer them some advice...as to…well if you do it like this...or change your technique…or change your...your grip...or whatever it might be you will be more successful…so they will continue to do it like that…and then you leave them for 5

minutes and give them another little bit of information…they are not only be susscesful they are winning a few points…and it just…and it snowballs I suppose like that

CC- So do you see your role as to make sure that they have loads and loads of attempts

JN – Yeah 100%

CC- On the basis…that hopefully...they will start to eliminate the poor responses

JN- Yeah yeah 100%...doing it and making those mistakes…doing it right and doing it wrong and learning from that is definately the way to do it...I think in that lesson, well any lesson to be honest…let them experience it for themselves rather than…you telling them what to do...for the majority of the lesson and then having a small amount of time to try it for for themselves…cause…I think any student learns by doing it and making those mistakes or getting it right being successful and then continuing to do that.

CC- Ok that is brilliant thank you so much for your time.

Jude Nobel- Third Interview: 11 July 2017

(N.B. All names used are pseudonyms)

CC- Thanks very much for agreeing to do this. In this I will be asking you to reflect more on issues that emerged in the first 2 interviews. So…can we begin with assessment. You spoke quite a bit about assessment. How do you see that assessment helps children's learning?

JN- I think that assessment is absolutely vital because...you need to have…well first of all you need to have a starting point…of where is that student...and then you have to be able to take that starting point and use it as a means of assessing what progress they have made with you…in that particular lesson...or with you across maybe a 4 week block of lessons within a particular activity…or…..or even more what have they…..what have they……how much they have progressed over the 3 4 years they are with you...so assessment is vital…it is something…I think…that can be done well or done badly…obviously there are various means and ways of assessing…in the last couple of years we have changed the assessment framework that we use in PE…I don't know if you are aware...but…they have scrapped NC levels...

CC- Yeah

DN- so we were given sort of…a blank a blank sort of page really and asked how we wanted to assessment them in core PE…we are talking about core PE here…so we put our heads together and had a little think about right…what we wanted to look for in students and what we wanted to make a difference with in so we…we basically nailed it down to 8 strands...not sure I can remember them now *(both laugh)*

CC- That's ok

JN-so we look at...the students fitness...as one area...we look at…their ability to coach…we look at their ability as a like leader...leadership qualities…..we look at their technical ability...in…you know…whatever activity it is they are doing…I think in the past that has been…the main...the main sort of area that that any PE teacher would have looked at…their technical ability

CC- Yeah

JN- and we are trying to move away from that…we are saying ok that technical ability is very important…but there is a wider range of skill set...that we want to create here with these students and there are more things we want to develop…..we look at their decision making...how well they are able…..to make decisions…..whether it is football or basketball or netball……..or gymnastics...or whatever it might be...what are their decision making processes…can we improve that…make it quicker and make it more natural...and we also look at two factors one we call character and one we call mindset…and that is just looking…..at what…

they are like as a rounded sportsmen or sportswoman...you know…are they punctual...do they have their kit….do they…commit themselves to extra-curricular activities...do they help their teacher and their peers...are they polite…..all sorts of things like that which also contribute to them being a good sportsmen and sports woman...but also a good human being as well

CC- Yeah

JN- so...we call that our assessment framework…and then we work off that…….and there are various levels within that which students can achieve….and then we are using that….constantly within our lessons…so we use it…sort of…on a small scale within a single lesson where we might focus on one particular strand or one particular area...and so we might say to the students…we want you to improve in this area of

coaching or leader ship in this particular lesson…this is how you are going to do it…at the moment we think you are on this particular level and we would like you to show us evidence that you are on this level by the end of the lesson……and then we can use it more widely when we are like reporting to parents or when we are giving students summative grades at the end of a particular unit of work…so say they have spent 3 or 4 weeks playing basketball…ok…that is what you have achieved in basketball…they have spent 3 or 4 weeks playing Rugby that is what you have achieved in Rugby…so we can use it like that as well…and then we can also use it then to inform what is going to happen the next lesson...because there are plenty of times when…you thought you would make x amount of progress...with students…but you did not for whatever reason

CC- Yeah

JN-...and so...and so then you need to scale it back...and use your assessment framework to then move your planning on or inform your planning for next lesson and vice versa. There are plenty of times…when the kids…..surprise you…completely and you move way past where you thought you were going to be would be….so...obviously that informs your planning for next lesson. So…I think assessment is a vital tool…you can use it..…as well…by which one…one of the really important areas of assessment is sharing it with the students…it does not want to be something that…is only understood by the teacher…if you share the assessment process and the students are involved within their own assessment process…it makes it so much more meaningful...that is why our assessment framework is all nicely brightly coloured and...we have them all on laminated on A3 sheets we take them out to our lesson we show students…they can point to where they are at…….they will all know what level they are on…they all know what they need to do to improve…so they are all involved in it…and they can peer assess each other...they can self-assess…all know where they are…they know where they want to be…they can compare within their group…within different strands…so you get a student who says…ok I am quite strong...within say football I am a strong leader…I can run a warm up...I can be a really good captain I understand the tactics and strategies…..so I am better than this student here …however this student is actually better at making decisions and actually technically better at football than me…so in that area he is better than me…and they are able to see that and understand

that…and work that out between themselves…but whereas you go back 20 years…and then it would just be…he is a better footballer…and that does not really get you anywhere or make the student feel particularly good or make them even realise that they have made progress...when they may have made lots of progress

CC- Are there things like character……..that you are happy lends itself to having criteria.

JN- Yeah…The criteria is not stringent...there are certain things within good character that we like to see...but you know any aspect of being a good character can be included within that so we are looking at good sportsmanship, we are looking at being graceful in defeat…….we are looking at…being a good leader and being able to communicate effectively with your team…if someone has made a mistake can you then…rather than dealing with them in a negative way can you deal with them in a positive way….you know…things like…just generally…are you polite are you a nice person…do you come to PE with the right attitude...so there is many areas within character that we look at...there is some key…some key…areas that we would look at but it is quite broad as well...you know...you have not shown that that and that so you can't have the character...when maybe they can

CC- Yeah and do you find that the kids are motivated to show best character?

JN- Without a doubt yes, and if for whatever reason they have a bit of a wobble...they do something that is out of character or shows poor character…it is a good way to remind them of...ok there so…is a kid in one of my Year 8 classes called Jack…he is a really good footballer but he is prone to...a little bit immature...struggles with accepting defeat...struggles with other students are not being as good as him…things like that…and I have to constantly remind him, "Jack, you are a great footballer but in this situation you are not going to get a good grade or as good as other people if you are not showing that character…if you are not showing…that ability to do those other things and be more of a rounded footballer or sportsperson

CC- and is Jack motivated by getting a good grade?

JN- Absolutely...absolutely yeah…I would say most students up to probably the end of Year 9 are motivated by having a really good whole PE grade in the assessment framework…you can get some groups within Year 10 who……..who are still

motivated by that… but them as you get higher through Year 10 into Year 11 students are 15 16 years old at that point then they are just motivated by their own interests...so yeah the ideas is that you have done your job before that so their interests are positive

CC- Ok that is great thanks. One last thing on that. Would you say that the issue is how much progress they are making or in what ways they are making progress?

JN- I'd say it is both. How much progress is obviously really important...because it is not going to be acceptable to…have taught children 5 years and they have made barely any progress. However, it is just as important to make sure that they have made progress in the right areas because it is one thing making loads of progress in one area...but if…if…that is not a broad spectrum of different sort of things they have improved on you then you have not really made as much of a difference as you could have done

CC- Yeah...sure...Ok

JN- So I think you have to look at both aspects hand in hand really

CC- Ok. You talked quite a bit before about consolidating learning. Can you talk to me a bit more about that please? What are your…..thoughts on that now? (11.01)

JN- Can you give me an example?

CC- You were talking about the start of lessons and giving children the chance to go back and look at things they had done before…

JN- OK yeah it is important that lessons are not seen as individual entities but they are seen as…sort of…..a bit of a journey...and you…..start at one end…and you…you plan for…let's say for example...I am teaching gymnastics...I don't just go right and teach this lesson in isolation…and I teach this lesson in isolation…you…you plan for the full...in our school we do it in 4 weeks

CC- Yeah

JN- So you plan for the full 4 weeks and you say right this is where they are starting at and you do your assessment and then this is where I want them to be at the end…and then you take them on that journey of what is going to happen in those 4 weeks and that might be...well we have...we have...probably 8 or 9 lessons…and then each lesson…you need to...like I say you consolidate what you have learned

before…I think without that…without doing that…you are almost...the next lesson starts from a blank again...so you need to go…right ok…where were we last time…where did we leave off…what were we doing…Umm and then…remind them of where they are at…what grade did you finish the last lesson on…ummm and then how do we then take that forward in this lesson.

CC- When you say remind them of where they are at do you mean you see that as quite defined...quite tightly defined by the assessment level.

JN- You can use that I think that can help because if you say to a student who is say in Year 7,8 or 9...um what did you achieve at the end of last lesson they will probably look at you blankly and say I don't really know...last lesson…what they will do is recount what they did rather than what they achieved

CC- Yeah

JN- So if you actually have some form of assessment criteria…grading...then it quickly reminds them of what they achieved so like in the lesson you might say...oh yeah do you remember last lesson...you...because here we grade them on a scale of 10 to 99…it is a bit strange but

CC- Oh yes I remember that

JN- So let's say they finished the lesson on a...they started the previous lesson on a 63 and you know that at the end of the lesson you told that student they were probably a 66 by now...and you also told them what they did to move between the 63 to a 66…then at the beginning of the next lesson say do you remember last lesson when you moved from a 63 to a 66 because you did this this and this...oh yeah yeah yeah *(he voices child's response)* then they quickly realise how much progress they have made they quickly realise what they have done and then they are ready to make that step again…immediately at the beginning of that lesson they know they are a 66…….and they know what they have done to get there and so then by the end of the lesson…if you are having those conversations with them…where are you now maybe I am a 68 or maybe...I have just consolidated my 66 but I have improved in these areas

CC- Right

JN- So I think having…..that assessment criteria and having...the grade attached to it even though it is a formative grade at that stage...really helps the student to know where they have come from and where they need to go…..otherwise…how do they know...they are only sort of 11 or 12 or 13 years old

CC- Yes

JN- You can't expect them to have that level of cognition without having some clear criteria that they need to show that they have met

CC- and…are you happy that the project of getting the grade…and the project of learning…whatever is being studied at the time…that those two projects are highly congruent

JN- Yeah I think…for me…the grade……the grade…..is there and serves a purpose but…at the end of the day it does not matter too much…it is the process that they have gone through to get there…and then what actually have they achieved out of it so yeah you might say ok by the end of this gymnastics module…..you have achieved a grade of 69 ok and this means that you can do these things...what is important is that they have improved their knowledge of gymnastics significantly…what is important is that they understand how to put routines together...what is important is that they have worked in groups of 2s and 3s and 4s and improved their ability to work as a team and communicate with each other…what is important is that they have learned more sports science information...how to warm up and cool down...how their bodies react in gymnastic situations...they are all the by-products…and that is what is important...the grade does not really matter...but by using that grade it is helping you to get there

CC- That is great thanks. You talked quite a bit about the importance of asking the students questions before…so in your mind what is the purpose of teacher questions. How do you feel…..that they help children learn?

JN- Ok for me…questioning is…is…a really important aspect of teaching and it can be…can be something that you get really well and you do really well...and it works perfectly…or it can be something that is done badly...you ask all teachers…they know that good questioning is absolutely vital to...to...teaching...they go hand in hand...good questioning is not always done...I think there are a couple of

things…we…teachers could do better...firstly is...plan the questions and think about the questions in advance…I think that is absolutely key. I think myself included...teachers are guilty of thinking…up questions on the top of their head...when the situation arises…which in some situations is ok...you know it might be absolutely appropriate to just think of a question oh that is perfect to ask so and so yeah do it…I think there should also be……..elements of…..planned questions…which sort of help with the planning and the theme and the progress of the lesson…and I think they should be thought about in advance and planned into what you want to do…and then there may be more over-arching questions that help the lesson to progress…that is really important...again...involving the students in the process of questioning is really important as well…perhaps getting them to make up their own questions...perhaps getting them to question each other…more…..I think it is really important…because…..I think…as a teacher looking in on that situation you can learn a lot about what you need to do because you can really see where those students are at and what they have learned …because…you might have an impression that...oh yeah…that student gets that particular area of the work and this student is working at a certain level and then you give them a task where they are questioning each other you realise…Umm maybe they don't get it as much as I thought they did

CC- Oh yes

JN – maybe he gets it more than I realised...he is doing really well…he understands more then he's actually let on to me or has practically shown me…so it can be a really useful tool to show where the students are at…in your class…I think another…..common sort of mistake...in teaching as well is….asking too many closed questions …and asking too many lower order questions...and I think again I think it is something that...they have to make a conscious effort to think about and a conscious effort to improve…and it is asking more open questions that can lead onto other questions…and it is asking more higher order questions and also really important as well is…targeting your questions at the right students…what...I mean...there is nothing wrong with on the odd occasion asking a question to the group and asking for someone to answer that question but it certainly does not want to be your 'go to' strategy…because you need to know your individual students you need to know where they are at you need to go right I will ask this question to this student...I'll find

out where they are at...and again it is an assessment tool isn't it…it is working out where they are at…what do they know...and then probing further…pushing them further but what about this...or can you add on to that…….umm…on top of that I think another thing that does not happen as much...and I see this when I do my lesson observations in my department and other areas of the school is…….teachers…they don't like to…or they don't feel that they can…….do a lot of questioning or push it further or allow it to take over the lesson when perhaps when sometimes that is a good way for the lesson to go

CC- Umm

JN- If a student answers question a certain way and it is not what you were expecting or it is not the answer you were looking for...then rather than going that is not quite what I was looking for and moving on...maybe it is better to say...oh that is interesting never thought about it that way...could you elaborate further...and then get another student to say what do you think of that...what do you think of what so and so said build your questioning up…rather than moving on if the answer is not what you expected the answer to be

CC- Yeah

JN- so I see that a lot...I think that teachers just need to be more comfortable in going, do you know what I am quite happy to spent 10 minutes of my lesson…or however much it might be…to just…..have a session question and answering and…really involving the whole class in it...directing different questions…bouncing questions off each other…

CC- and what do you think is happening...when you ask a child a really good question…however a you choose to define a good question...and they are grappling with this...what do you think in terms of learning is happening?

JN – For a lot of students they are panicking. *(Both laugh).* Because you have asked them a question and they are going 'oh not me'! I have actually...because in the last couple of years I have realised that was happening quite a lot…so a lot of the time…particularly in my practical lessons we will have 30 seconds where they have to discuss a topic with their partner…30 seconds I want you to discuss this

topic...come up with three points on this or whatever it might be and they do that with the person next to them…so 30 seconds completely talking about that...then they have done that even if they have no ideas they now all have some ideas and have all shared that…then you ask the questions and the quality of the answers you get is so much better

CC- Mmm

JN- The level of cognition is so much better they are all engaged...they all have an idea…if they did not have before...they are not worried about answering the question because they at least have 1 or 2 ideas…if they did not have those before...and they are all in a bit more of a comfortable place with getting involved with that…then you can see the confidence rises and then all of a sudden you have a student who never puts his hand up ever…is now going 'let me answer the next one' because the confidence is built…and they have done that so yeah that can help quite a lot

CC- Yeah

JN- what is happening when you ask a question…first of all I think it is panic and oh god I have got to answer this in front of the whole class and sir is pointing at me expecting me to say something in the next 3 seconds...but actually you have to give them that bit of time…sometimes you have got to give them 5-10 seconds that it is worth sometimes…right this is the question.. write down your thoughts...and then I will ask the question...so when you do answer it you have a few points to refer to and it makes life a bit easier as well………..so yeah what they are feeling…that is the sum of it…it is the same with adults...I can be sat in there...in a meeting or a session...where…and then the speaker at the front directs a question at you

CC- Yeah

JN- and all of a sudden it is like…oh there are as 100 adults in the room and I have got to speak…I was not prepared for this…it is exactly the same…you start to think…what can I say? How do I get out of this with my……..with my dignity intact? Can I say something intelligent here? It is exactly what the students are doing as well

CC- Ok brilliant thank you. So when you are looking for learning…what would you...what would you say that there is to see?

JN- Well I think…in PE there are lots of things...I think…it does come back to the assessment framework...because I think…when we…as a department put our heads together and decided on what do we want the assessment framework to be about...and what do we want it to show…one of the first questions we asked was 'what are we looking for in PE what do we want...what learning are we expecting to see here…and so then it comes down to…right the first and obvious thing is...we are looking for…some level of technical ability…so that is in the centre of the page…we are thinking that this forms a big part of what is a practical subject...we are looking for…technical ability…and that is different in dance, athletics badminton...so technical ability...so what needs to compliment that…what else are we looking for…because if a student does not have technical ability they can't fail they might be a really good participant in PE. Ok so they need to be good at understanding tactics and strategies …and they also need to...umm be good at making decisions…so you might get a student who is really good at analysing a game situation working out a really good tactic…really good strategy that is going to work in that particular setting...being quite adaptable…in that in that environment...making some good decisions but...maybe not having that technical ability...ok so they can be successful in those areas…ok then we move don…so what else do we want to see...we want to see them referee and umpire and officiate so...that was another aspect we were looking for…what else…we want to see them become good coaches and leaders...ok...what else do we look for…so we look for life skills…communication…teamwork. Do they have good communication skills…things like character and mindset...are they generally good people who want to do well and show good values and sporting ethics and things like that...and then on top of that we said…and another factor is fitness levels ok…do they take their fitness seriously...do they have good fitness levels…if they haven't do they understand why they haven't…and can we improve...things like their life style…can we encourage them to do extras activities…we see them 2 hours week…it is not going to make a huge dent in that but it is giving them the understanding...the knowledge to say…actually…maybe I am not as fit as I should be that...maybe my diet is not as good as it might be…and we can give them the information so they can make more informed choices...go away maybe do something about it…maybe become more active…do things outside school that perhaps they were not doing... maybe think about their food choices...things like that...so when you say what do we

look for in learning...that is how we started out…a process…those are the things as a PE teacher that we look for…and therefore that is our assessment model

CC- Yeah that is great thanks. Thinking about how it is that children learn…..are there any particular principles that you apply when you are looking to help children learn…in your lessons?

JN- How students learn things?

CC- Yes so when…when you have a class that you are seeking to help learn…particular content...do you have any particular key principles that you employ?

JN – Yeah you have the theoretical ideas that the students…will learn kinaesthetically they'll learn visually…and learn though hearing and things like that...you take that into account...the thing you have got to really focus on that…because students don't have that many practical subjects in school…so I think the big area that you have to push in PE is that area of learning kinaesthetically...and trying things out…and…such as…seeing how things feel...how do movements feel...how do…how...how does it feel to bounce a basketball…some students come to us in Year 7 and have never bounced a basketball

CC- Yeah

JN- how does it feel to kick a football…how does it feel…to do a serve in badminton…and...and…so it is giving the students that kinaesthetic experience basically…of…and that is the main way that we do it...but I think there is also…got to be other ways as well…some of the students learn well by watching others…so things like demonstrations are really important...I always say to my department it is absolutely vital that you give a demonstration as a teacher…because they can see something close to the correct technique…but then I think it is also important to get someone in the group to demonstrate as well…because they need to be able to see that someone in their peer group is also capable…because you can get that situation where………say you are taking a lower...a really low ability Year 7 group for badminton...and they are struggling to serve…and you go...this is how you serve… and you just do it…and they watch it go over the net…….oh well it must be easy then…but it is not…for them it is something that is a really really difficult skill...so they have got to see one of their peers do it to appreciate…right ok these are the problems

they are going to have…or if they can do it I know I can do it…to give them that level of motivation...but also...they…in terms of learning they need to be able to see that happening as well…and sometimes rather just doing it themselves…they need to see it…how did that work…where is your arm...where are you holding the shuttle cock…what is going on...which way are your feet working…that sort of thing …so I think…visually as well…and also…giving them some...some verbal cues very important as well…so…you might say right ok…before you do the serve in badminton…in your head…go through…a little…a little sort of series of verbal cues.. where are my feet are they in the right place...where is my racket is the grip ok am I holding the shuttle cock correctly....is my shoulder in the right place…am I…am I aiming it in the right areas....so they can go through those verbal cues in their mind as well…so they have watched someone do it…that have seen the teacher do it...they have had a few practices themselves…they know that kinaesthetically…it is not going quite right...so I think they are the areas that you have to focus on

CC- Ok brilliant thanks…and more specific to games like…do you have any principles that you apply that are specific to games

JN- Umm I think……it depends on the group you have got…and what they are capable of…and it also depends on the game itself

CC- Yeah?

JN- …like with………some games…are really conducive to being broken down into individual skills…basketball is a good example of that…you can break basketball down quite nicely into dribbling...into the different passing shots…into different…different shots that you can make so things like the lay-up or the set shot…you see you can…basketball is a good game to break up into individual skills…..and it is quite conducive to learning those skills in isolation...and then building...building that up into smaller game situations and into full game situations…whereas personally I find rugby difficult to do that…because rugby you just need/ I find it better to teach in a game situation…umm because when...I find when they learn rugby skills in isolation…it is so different…to those skills in a game…that they are almost entirely separate…

CC- Yeah

JN- So say for example you are teaching……tackling…you can go through the process of how to make a good tackle…in isolation as much as you like...once you get into a rugby game…the idea of a tackle is so different in that full pace real life game situation…the same with the ruck…you can teach a ruck in isolation as much as you like ..with a tackle pad and…this that and the other…but actually…there are no tackle pads in a game of rugby…you know...a ruck is formed because the other team is there not because there is a tackle pad there...so with rugby I find teaching is…you are…I find...it is better…to play a game...condition the game...so certain things are allowed...certain things are not allowed...so you don't play to the full rules but you play…and you condition the game so it works to what your goal for the lesson is…so for example if I am trying to work on rucks…then…I might say ok…5 points for a try…but every time your team creates and defends a successful ruck you get 2 points...so that encourages them to rather than run around the fringes that encourages them to take the contact that encourages a ruck to form because the…..that means they get their 2 points that is then working that way……so…how do you teach games…depends on the game itself and what it is conducive to…..ummm…it depends on the group you have in front of you...some groups are not able to do that…that scenario I outlined with the rugby…some groups are not able to do that…so you might start at the very bottom and work your way up with skills in isolation…for example this year I

taught a Year 8 all girls group...really low ability…and we had rugby on the curriculum which is great…because they should as much chance to do that as anyone else…but I had to scale it back more than I have ever had to scale it back before…

CC- Yeah

JN - …more than I have ever had to do in my teaching career…you know...we started off with almost like…benchball style rules...basically familiarising themselves with a rugby ball and then we very slowly progressed into right ok in this game we have to pass backwards and then we moved into the idea of well we do want some contact in this game so we started off with tag belts…and we slowly moved it up by the end of the 4 week we just about had the girls tackling each other…we just about had them...we had some semblance of a ruck…you know…an outsider would say yeah that is a game of rugby to a certain extent

CC- Yeah yeah

JN- whereas you take the same year group...but a top group of Year 8 boys and based on what they have done in Year 7 they can come straight in to…almost a full contact rugby match and you can start coaching the intricacies of the scrum and the intricacies of…what is happening at the breakdown and...and...and planning set plays with them and things like that…it really does depend on the group you have in front of you...the support you have got...and I suppose…what you want to achieve in that particular lesson

CC- Yeah

JN- sometimes I like to kick…I like to do…a completely skills based lesson at other times I like to do a games based lesson and I stop it as certain times when I think they that could do something better so if they are playing a game of basketball...we are going to focus…you might have a lesson where you are going to focus on…the half court press…so we are going to play lots of games this lesson but if I see that your…..your…chest passing is becoming sloppy or if I see that people are dribbling too much and not passing enough…of if I see people's lay ups are falling short...then maybe we will stop that spend 10 minutes or so on that particular skill and then go back into a game…so I think you are going to be judging it depending on what is happening

CC- Ok brilliant thanks…yeah. You talked before quite a lot about feedback. What do you think constitutes good feedback...how does that happen for children

JN- so…..what..

CC- In terms of improving physical competence

JN- Ummm….I think…similar…to what we talked about with the assessment criteria…being able to constantly be giving the students feedback on their progress and how they are doing is...is really important.....so when the lesson is going on...you probably a PE teacher will under estimate this...those constant comments of…that's…you have done that well because…and or and...and this is where our assessment framework really helps us…because we can say as a leader today you…you have really improved in this particular area because…or you have really improved your technical ability with your chest passes today…or…you have now

really understood the half court press this lesson...so from a strategical and sort of tactical point of view…you are really improving...last lesson I could see that...you did not understand the half court press at all...did not understand why you had to do it or what it was all about…now you can say...well yeah...it is a really good tactic...because it is going to save energy for my team...it is going to get us back in position quicker...and you can say what the right times of the game...you are to use it

CC- Yeah

JN - …I think giving constant feedback to students...verbally…is…is really important ...I think PE teachers probably under estimate that…and that if you go to most PE lessons…I would say that is happening pretty much constantly…throughout the lesson...like I say that we...probably underestimate how much that individual student...every little second ..that we are picking different things out…and saying what they have done and why they have done it...we under estimate how much they have taken that on board...and doing that…I think as well……obviously…getting the balance right between positive and negative feedback as well…because you want…you want to try and be as positive as possible...but also...if they are making mistakes...or there are things they can improve upon...then…they…you need to get that across to them in the right way as well…so I think that is really important...and then I think also…..it is important for the students to have the summative feedback…and maybe have something tangible…..like the reports that we send out…where they have got something to say yeah that is what I have done in PE this year or this term and this is the grade I have got and they know why they have got that grade…so I think that is important as well.

CC- Ok that is great. Thank you so much.

Appendix 5 – Example of Raw Data: Chapter10

Partici-pant	Location in transcript	Transcript	Fourth Level interpretation	Third Level interpretation	Second Level interpretation	First Level interpretation
Darcie	1: 113-115	"Well I have set of key words...that we take to every single sport we do so they are kind of drilled…we drill those into the kids quite early on…so they have accuracy, consistency, control and fluency and we use those words for the basis of our assessment, peer assessment, self-assessment..."	10.2.2 Teaching is conceptualised as a form of transmission.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Dylan	3: 225-227	"So, I am always trying to give them a picture of where they are going…whether it be gymnastics or rugby or whatever…"	10.2.2 Teaching is conceptualised as a form of transmission.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Ruby	2: 58-62	"...I can only really talk about my Year 7 group at the moment...any girls...I teach, it is usually girls as we are mainly single sex classes...until the exam course starts…...you set the rules...you set the boundaries and you set how you want your lessons in September...and then throughout the year…I would not say so much my role...but you can see a difference of confidence with the girls from giving them this chance to take ownership and leadership of their class..."	10.2.2 Teaching is conceptualised as a form of transmission.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Jude	1: 100-104	"…so I think communication as a life skill in general whether that is through your actions through your words I think is...is something that is really important that we teach the students it's something we can do quite well in PE uhm...other life skills...could be organisation- you gotta bring your kit you gotta have it packed...packed in your bag you gotta be on time...there's things like punctuality things like that are...are important"	10.2.2 Teaching is conceptualised as a form of transmission.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Jude	1: 109-110	"…really important lessons they have got to learn...and you know when they take those skills into the outside world..."	10.2.2 Teaching is conceptualised as a form of transmission.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Jude	2: 73-77	"I mean when you are doing badminton it is really important that you differentiate your resource like that...because it makes such a difference…the amount of times I have seen a student with a full-size racket and they just cannot serve they cannot hit it and you think what is going on here? And then	10.2.2 Teaching is conceptualised as a form of transmission.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning

Partici-pant	Location in transcript	Transcript	Fourth Level interpretation	Third Level interpretation	Second Level interpretation	First Level interpretation
		you give them a smaller racket and immediately...no problem every time every time they are hitting it all the time..."				
Jude	3: 342-345	"...so you don't play to the full rules but you play...and you condition the game so it works to what your goal for the lesson is…so for example if I am trying to work on rucks…then…I might say ok…5 points for a try...but every time your team creates and defends a successful ruck you get 2 points…"	10.2.2 Teaching is conceptualised as a form of transmission.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Dylan	1:172	"Just filled with confidence…"	10.2.2 Teaching is conceptualised as a form of transmission.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Dylan	1: 282-284	"If you look relaxed that can rub off on the kids...so I did not make a conscious decision to "I am going to be more relaxed now"...I don't think you can do that but...I did start thinking about it...a lot more"	10.2.2 Teaching is conceptualised as a form of transmission.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Dylan	3: 13-14	"And I think we can teach that quite fully through PE...as well as the technical tactical coaching aspect"	10.2.2 Teaching is conceptualised as a form of transmission.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Dylan	3: 77-79	"Seeing kids that maybe don't feel that they can access PE or sport…kids that 'Oh I don't like PE...it is not for me' I like to make them...realise that…it can be fun...it is fun…"	10.2.2 Teaching is conceptualised as a form of transmission.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Jude	1: 119-122	"…we don't want to breed people who are happy at losing but equally losing is part of sport and you have got to be able to take that on the chin accept it understand where you've gone wrong what your weaknesses are and then make a plan to improve it...yeah so we have got to teach them to be able to lose..."	10.2.2 Teaching is conceptualised as a form of transmission.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Jude	1: 122-123	"...I have seen it over the course of a year where I have taught a group of students...that they have definitely improved and learnt that skill"	10.2.2 Teaching is conceptualised as a form of transmission.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to	Theories of teaching as a means to interpret personal theories of learning

Partici-pant	Location in transcript	Transcript	**Fourth Level interpretation**	**Third Level interpretation**	**Second Level interpretation**	**First Level interpretation**
					interpret personal theories of learning	
Darcie	1: 155-160	"Basically, independent learning. Giving them the criteria, the framework to work around. Based on whatever the activity is that I am looking at...and…stepping back and letting them take the lead. Obviously, there is a lot of ground work that goes into that beforehand. Because…they need to have some basis of which to pull from there...because sometimes just throwing them in at the deep end…they can…you know...they don't engage with it as much..."	10.2.2 Teaching is conceptualised as a form of transmission.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Darcie	3: 480-483	"I suppose I now...I would maybe...think about it now in terms of...my questioning...and...or how I have structured what I have done…is it because…the knowledge and understanding is not there because of what I have delivered…or it is because...we are still at a point where...they have not quite...it hasn't filtered down yet…"	10.2.2 Teaching is conceptualised as a form of transmission.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Darcie	2: 317-319	"…if you have not had them from when they are younger...because what I try and to do now with the Year 7s that I teach is I try and instil that in them quite early..."	10.2.2 Teaching is conceptualised as a form of transmission.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Darcie	2: 366-368	"…so if he was doing it most of the time in terms of 'O' levels…he would be a 4A, if it was a bit of the time it would be a 4C and so on…and we were ingraining that, in the kids"	10.2.2 Teaching is conceptualised as a form of transmission.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Jude	1: 186-189	"So it's giving them little tit bits of information things they can work with and then saying, right, it's down to you now. Have a think about this, this is your end goal whether it's your routine or to win the game or whatever can you come up with some ideas for yourself?"	10.2.3 Teaching and learning are seen to exist in an 'open ended' relationship.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Ruby	1: 31	"...so I find it important that students have to think for themselves..."	10.2.3 Teaching and learning are seen to exist in an 'open ended' relationship.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning

Partici-pant	Location in transcript	Transcript	Fourth Level interpretation	Third Level interpretation	Second Level interpretation	First Level interpretation
Dylan	1: 59	"...but where you can...I am a big fan of the kids...just trying to work it out for themselves..."	10.2.3 Teaching and learning are seen to exist in an 'open ended' relationship.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Dylan	2: 76-77	"Yeah I like it…letting them loose…I like letting them loose…standing back…you can learn a lot about the kids…just watching..."	10.2.3 Teaching and learning are seen to exist in an 'open ended' relationship.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Dylan	2: 89-90	"…chance for them to use their own brains…rather than be directed the whole time"	10.2.3 Teaching and learning are seen to exist in an 'open ended' relationship.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Dylan	2: 92-93	"No……they are still glazed most of the time…head butting the floor...eating the fake grass...so it is rarely that I do that with them..."	10.2.3 Teaching and learning are seen to exist in an 'open ended' relationship.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Dylan	2: 98-99	"Yeah…yeah I would give it a go…always give it a go…yeah...have tried it before and…did it work but they……they were not there that day…"	10.2.3 Teaching and learning are seen to exist in an 'open ended' relationship.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Ruby	1: 15-16	"So for example at the moment I am on badminton. So.....I have let them explore…I have let them make up their own games..."	10.2.3 Teaching and learning are seen to exist in an 'open ended' relationship.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Dylan	1: 62-64	"Yeah,..yeah,..I do…I am trying to think how I do it if……I don't think I change if I am being observed….I like the kids to have a bit of freedom. Again it depends on the class. If they were a handful then you don't give them the leash..."	10.2.3 Teaching and learning are seen to exist in an 'open ended' relationship.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Darcie	2: 376-377	"…and as I became more comfortable in my own teaching style...I decide to let go of the reins a little bit…"	10.2.3 Teaching and learning are seen to exist in an 'open ended' relationship.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning

Partici-pant	Location in transcript	Transcript	Fourth Level interpretation	Third Level interpretation	Second Level interpretation	First Level interpretation
Darcie	1: 13-16	"Usually a lot of...basically…group work...where…giving a set of guidelines so they will interpret those differently as such…so each group will…come up with a different way…a different perspective depending on how they view the activity ..how they see it ..and basically the outcomes I hope they will achieve…..through a process of their own trial and error…"	10.2.3 Teaching and learning are seen to exist in an 'open ended' relationship.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Darcie	2: 81-82	"…and they kind of…without realising, just 'step up'...and take it upon themselves to kind of...try, take a bit of control over what is happening…"	10.2.3 Teaching and learning are seen to exist in an 'open ended' relationship.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Ruby	1: 104	"…so they are learning to understand...without realising it…"	10.2.3 Teaching and learning are seen to exist in an 'open ended' relationship.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Darcie	2: 295-298	"I would say that I would go for the model whereby…gauging their knowledge and understanding through questioning…of what they have done previously…and then I would generally just go with the same model I use here which is…introduce the skill...basically getting them to go off and see what they can do with it and then give them the correct teaching points…"	10.2.3 Teaching and learning are seen to exist in an 'open ended' relationship.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Darcie	3: 18-20	"……I think that still is a good approach because then…you can see the gaps in knowledge or how the lesson develops because…it is just interesting to sit back and see how they approach it..."	10.2.3 Teaching and learning are seen to exist in an 'open ended' relationship.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Jude	2: 285	"…and then as they...the lessons progress...over the next few weeks..."	10.2.3 Teaching and learning are seen to exist in an 'open ended' relationship.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Jude	3: 178-179	"I think there should also be……..elements of…...planned questions…which sort of help with the planning and the theme and the progress of the lesson"	10.2.3 Teaching and learning are seen to exist in an 'open ended' relationship.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Ruby	2: 12-13	"…so, as a teacher I could see……the resources that I had given...and using the more able as leaders...it gelled and worked really well…"	10.2.3 Teaching and learning are seen to exist in an 'open ended' relationship.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning

Partici-pant	Location in transcript	Transcript	**Fourth Level interpretation**	**Third Level interpretation**	**Second Level interpretation**	**First Level interpretation**
Ruby	2: 107-108	"Well of course the rapport the teacher had with the children the ownership the children had…all the tick boxes…all the tick boxes happened…"	10.2.3 Teaching and learning are seen to exist in an 'open ended' relationship.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Ruby	3: 70-74	"…good knowledge of the subject…..progress from the lesson objective you are teaching...yeah progression from what you are teaching is obviously huge isn't it...because…how are they learning…if they are not going to be progressing...so your lesson objective...knowledge…give the children the skill you want them to learn...by the end of the lesson they have learnt that skill...ready to move on the next lesson…"	10.2.3 Teaching and learning are seen to exist in an 'open ended' relationship.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Jude	1: 379-382	"I would much prefer them to say right you're teaching a badminton lesson, the focus of the lesson is the overhead clear shot, you know...you go and put your own personal spin on that I trust you...you've got the subject knowledge and the pedagogical knowledge to be able to go on and deliver a really good lesson..."	10.2.3 Teaching and learning are seen to exist in an 'open ended' relationship.	10.2 – How the relationship between teaching and learning was conceptualised	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Dylan	1: 46-48	"…well, looking for learning?…you want to see progress...you want to see them doing something they could not do at the beginning…you want to see them engaged…happy…smiling…….on task…"	10.3.2 Conceptions of teaching and understanding: interpretations	10.3 Conceptions of teaching, learning and understanding	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Dylan	1: 96-100	"I have got them tomorrow. Mmm……yeah…I was really proud of their progress...not just the way that they had become good at working together...but their actual floor gymnastics was …was a delight to watch. From really rusty beginnings two three weeks ago *(DJ laughs)*…they could not even jump...but now yeah it is really great…they are really thinking about posture and timing and...yeah it is good...I do feel proud…….."	10.3.2 Conceptions of teaching and understanding: interpretations	10.3 Conceptions of teaching, learning and understanding	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Dylan	2: 142-144	"………progress what I saw that day was…a group of kids who had never hurdled…at the end of the lesson all had an understanding how…and some able to display it…I think within the 40 minutes...in a nutshell…went from not knowing anything about it to understanding what it is all about..."	10.3.2 Conceptions of teaching and understanding: interpretations	10.3 Conceptions of teaching, learning and understanding	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning

Partici-pant	Location in transcript	Transcript	Fourth Level interpretation	Third Level interpretation	Second Level interpretation	First Level interpretation
Dylan	3: 96	"If they don't understand they are not going to be able to progress...it is as simple as that..."	10.3.2 Conceptions of teaching and understanding: interpretations	10.3 Conceptions of teaching, learning and understanding	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Dylan	1: 46-47	"...you want to see them doing something that they could not do at the beginning..."	10.3.2 Conceptions of teaching and understanding: interpretations	10.3 Conceptions of teaching, learning and understanding	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Dylan	2: 102-104	"...effective teaching breaking things down chunking things up…..umm…not expecting them to be able to do the Fosbury flop on first attempt...that is a skill that needs to be broken down…and understanding why we are going from here to here..."	10.3.2 Conceptions of teaching and understanding: interpretations	10.3 Conceptions of teaching, learning and understanding	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Jude	1: 128-133	"Ummm…progress (laughs)...I think…you want…you are looking for physical progress...and you are looking for emotional progress...you are looking for…progress with their understanding...so these are all things that you are looking for...and how you see that…is…obviously…you can see physical progress. Maybe the success rate of what particular skill they are performing is improving, maybe they are working better with their team...maybe when you're asking them about tactics in that sport they can give you better answers..."	10.3.2 Conceptions of teaching and understanding: interpretations	10.3 Conceptions of teaching, learning and understanding	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Jude	1: 165	"With what I'm doing am I deepening thinking in learners?"	10.3.2 Conceptions of teaching and understanding: interpretations	10.3 Conceptions of teaching, learning and understanding	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Jude	1: 180-182	"…if the extension is to maybe come up with ideas for themselves being imaginative, being inventive, so I might give them a set of ideas and I say, right okay, I want you to now go away, in groups, and build your own routine..."	10.3.2 Conceptions of teaching and understanding: interpretations	10.3 Conceptions of teaching, learning and understanding	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Jude	1: 199-200	"There's other times when you might want to pose a question which is a higher order question where you really want them to…to…to…deepen their thinking in the lesson..."	10.3.2 Conceptions of teaching and understanding: interpretations	10.3 Conceptions of teaching, learning and understanding	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning

Partici-pant	Location in transcript	Transcript	Fourth Level interpretation	Third Level interpretation	Second Level interpretation	First Level interpretation
Darcie	2: 295-296	"Ahmmmmm I would say that I would go for the model whereby…gauging their knowledge and understanding through questioning…of what they have done previously…"	10.3.2 Conceptions of teaching and understanding: interpretations	10.3 Conceptions of teaching, learning and understanding	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Jude	3: 291-292	"…so I think the big area that you have to push in PE is that area of learning kinaesthetically …and trying things out…and…such as…seeing how things feel..."	10.3.2 Conceptions of teaching and understanding: interpretations	10.3 Conceptions of teaching, learning and understanding	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Jude	2: 125-126	"…so if they can imagine themselves in that coaching situation they tend to…that brings out their understanding a little bit better..."	10.3.2 Conceptions of teaching and understanding: interpretations	10.3 Conceptions of teaching, learning and understanding	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Jude	3: 228-229	"…then you ask the questions and the quality of the answers you get is so much better..."	10.3.2 Conceptions of teaching and understanding: interpretations	10.3 Conceptions of teaching, learning and understanding	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Jude	3: 275-277	"…it is not going to make a huge dent in that but it is giving them the understanding...the knowledge to say…actually...maybe I am not as fit as I should be that...maybe my diet is not as good as it might be..."	10.3.2 Conceptions of teaching and understanding: interpretations	10.3 Conceptions of teaching, learning and understanding	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Darcie	1: 22-23	"…basically to see the level of progress and knowledge and understanding of the activity…of what I have got them to do..."	10.3.2 Conceptions of teaching and understanding: interpretations	10.3 Conceptions of teaching, learning and understanding	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Darcie	1: 97-98	"umm…Communication between...between groups...ahmmm I look for those that are taking the lead I look for those who are shying away because then…I don't want them to fall behind…"	10.3.2 Conceptions of teaching and understanding: interpretations	10.3 Conceptions of teaching, learning and understanding	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Darcie	1: 259-262	"I would say that my key words…working towards those as targets understanding them…how they can use them to progress…to...look at self-assessment in terms of where they are at look at other people in the group to see where they are at…or why they might be…….so understanding what they need to do to improve…"	10.3.2 Conceptions of teaching and understanding: interpretations	10.3 Conceptions of teaching, learning and understanding	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning

Partici-pant	Location in transcript	Transcript	Fourth Level interpretation	Third Level interpretation	Second Level interpretation	First Level interpretation
Ruby	1: 194-196	"…that is how they are with that teacher…high expectations…differentiation...students are challenged…students progress……students understand their assessment grades…and where they are at and where they can move to…"	10.3.2 Conceptions of teaching and understanding: interpretations	10.3 Conceptions of teaching, learning and understanding	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Ruby	3: 34-37	"……..Their understanding……so well obviously as a teacher…if you have taught something...and the children go away to practice that skill…and practice let's say…..let's say they were practicing the long jump they were starting by taking off from one foot and then bringing in their arms and then landing with two feet...as a teacher you would go round...when they are working in their groups to find out…"	10.3.2 Conceptions of teaching and understanding: interpretations	10.3 Conceptions of teaching, learning and understanding	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Ruby	3: 101-104	"…with each other? Well they are talking to each other when they have been given a skill or a task to learn and they are just learning to understand…the positives and negatives of...not positives and negatives...the word I am looking for is how to improve a task that has been given to them by the teacher...so they are learning to understand...without realising it..."	10.3.2 Conceptions of teaching and understanding: interpretations	10.3 Conceptions of teaching, learning and understanding	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Dylan	1: 208-209	"From the children...in a really good lesson you would see kids understanding why they are doing what they are doing and knowing where what they are doing is going take them..."	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Dylan	1: 336-337	"Ok that group is on task...what are they doing........so you are looking for little cues...from the children...to see learning...it will be different levels of learning in the class..."	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Darcie	1: 22-23	"…basically to see the level of progress and knowledge and understanding of the activity…of what I have got them to do..."	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Jude	1: 22-23	"…then you know you can see that then...they are learning something and that's valuable"	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning

Partici-pant	Location in transcript	Transcript	Fourth Level interpretation	Third Level interpretation	Second Level interpretation	First Level interpretation
Jude	1: 130-131	"…you can see physical progress"	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Darcie	1: 175-176	"…I think it is a great way to...assess and see...you know...how quickly they are progressing"	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Jude	1: 145-147	"…where people have judged students' performance because it is the easiest thing to say 'he's learnt or she's learnt...they have improved' because you can see it with your own eyes and PE teachers..."	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Jude	1: 153	"…so that's so easy to see improvement and progress and learning..."	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Jude	2: 502	"…the further you go on with it…so yes you do see a lot of technical progress with it..."	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Dylan	2: 433-434	"I like the fact that they can see progress...you can put it on a bit of paper...you can verbally talk to them about it..."	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Dylan	2: 244-245	"…with maths and science the examined subjects you need to be able to make comparisons…but for core PE...I don't think so..."	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Dylan	3: 238	"Oh…Chris...I don't really know where we are with it…do you mean nationally? "	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning

Partici-pant	Location in transcript	Transcript	Fourth Level interpretation	Third Level interpretation	Second Level interpretation	First Level interpretation
Dylan	3: 239-251	CC- In terms of the aims of it…*(assessment)* **Dylan**- Yeah….what do you mean nationally…….What is the national reasoning? CC- Yes…if you had a PGCE student in and they asked you to do 15 minutes on the aims of educational assessment…is it something you tend to focus on doing. **Dylan**- Yeah, I mean…it changes so much...it changes so much…Ummm….I have never thought about it nationally I think about it in-house…it does help you…'you' see where the kids are it helps you…you explain to the kids where the kids are…and being able to compare the various strands of ability…between kids in the class is going to…help you…enables you to be a better teacher, overall teacher in respect of planning…for where they are going to be next lesson or next block...I think assessment itself is…is a really good…is a dammed good thing…and like we touched on before I think we are assessing more than we know...it just happens...it does not have to be on a national level I don't think unless it is GCSE PE then it has to be but core PE…I think that each school should just…have its own little…whatever works for them	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Darcie	2: 404-406	"…they were easier to break down for the students…so that they could see a clear path of how to get from C to B and from B to get to A and so on…"	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Ruby	1: 247-248	"…it changes all the time doesn't it…PE assessment…"	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Ruby	3: 228-231	"…I think I would have to sit and think…and read up on literature to think...do kids really need that number and that letter and I would have to read up on it more because...in the world that you are in you don't think of it...unless you are head of PE…I am not head of PE…I am second in PE and things like that…I have not really thought before of…is there another way..."	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning

Partici-pant	Location in transcript	Transcript	Fourth Level interpretation	Third Level interpretation	Second Level interpretation	First Level interpretation
Darcie	2: 335-336	"I want to see where you are at…it is good for me to gauge your progress…and also you can see your progress..."	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Ruby	1: 14-15	"…so as a teacher you can see they have progressed"	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Dylan	3: 244-245	"…you see where the kids are it helps you…you explain to the kids where the kids are"	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Dylan	2: 40-41	"…you can see them mentally assessing themselves and I would like to think their partner…"	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Darcie	1: 260-261	"…look at self-assessment in terms of where they are at look at other people in the group to see where they are at"	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Darcie	2: 401-403	"...in terms of…so they can see where they have started and that they are improving...but…I can't say that I overly agree with it"	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Jude	3: 234-235	"…then you can see the confidence rises and then all of a sudden you have a student who never puts his hand up ever"	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Jude	3: 184-185	"I think…as a teacher looking in on that situation you can learn a lot about what you need to do because you can really see where those students are at and what they have learned..."	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning
Ruby	2: 61-62	"…but you can see a difference of confidence with the girls from giving them this chance to take ownership and leadership of their class"	10.4.2 Teaching that assumes aspects of learning are visible: interpretations	10.4 Theories of teaching that assume learning is visible and rational	Chapter 10 – Theories of teaching as a means to interpret personal theories of learning	Theories of teaching as a means to interpret personal theories of learning

Appendix 6 – Vignette of analysis process

Jude summary

Introduction

Much of what we know we cannot recall to order. Rather it will be revealed in the appropriate circumstances. We live our lives in the natural attitude. From a phenomenological perspective, in everyday life, we see the objects of our experience, such as physical objects, other people, and even ideas, as simply real and straightforwardly existent. In other words, they are "just there." We don't question their existence; we view them as facts. When Husserl (1936) uses the word "natural" to describe this attitude, he doesn't mean that it is "good" (or bad), he means simply that this way of seeing reflects an "everyday" or "ordinary" way of being-in-the-world. When I see the world within this natural attitude, I am solely aware of what is factually present to me. My surrounding world, viewed naturally, is the familiar world, the domain of my everyday life. Why is this a problem?

The starting point here, is that helping children to learn is a practical task and as such, that the teacher will have a theory about how to go about such a task even if they are not sophisticated or informed by scholarship. Given that theories of how children learn seem to be a less dominant discourse, then it is vital to find ways which enable the researcher to make interpretations. In this research the key emerging themes are those of assessment, how the children are constructed by the participants, how they speak about teaching and how they describe the aims of the subject. In addition, there is the idea that they often hold what are apparently quite contradictory theories simultaneously.

Contradictions

In talking about assessment, he says that the children need to be involved:

"*So…I think assessment is a vital tool…you can use it…...as well…by which one…one of the really important areas of assessment is sharing it with the students...it does not want to be something that…is only understood by the teacher…*" (Jude 3:56-59).

Here, he is expressing a view that assessment is essentially an aspect of practice and is a way for him to include the students in the process of learning and as such it can be seen as an enabling feature. However, he also says that,

"…we want you to improve in this area of coaching or leader ship in this particular lesson …this is how you are going to do it…at the moment we think you are on this particular level and we would like you to show us evidence that you are on this level by the end of the lesson…" (Jude 3: 42-45).

So here the object is not so much about deeper learning or increased mastery but is about achieving the evidence to 'get the grade'. Who is 'we' in this?

"…use your assessment framework to then move your planning on or inform your planning for next lesson" (Jude 3: 53-54).

So here he is saying that he needs the assessment framework to know what to do next. He talks about assessment as if it is a performative technique in its own right (Jude 3: 53-60). There is a tacit assumption that the project of learning in the subject is congruent with gaining the grade.

Conceptions of teaching

That the teacher is at the centre and that the lesson has become a kind of performance that can be evaluated in its own right rather than in relation to what the children are doing.

Conceptions of learning

He says that assessment is vital so you know, *"…how much they have progressed over the 3 4 years they are with you" (Jude 3: 10-11).* In this learning is taken to be something that can be quantified? He is saying that the key is the 'quantity' of what has been learned. He could have said in what ways they have made progress. There is always a tendency to think in terms of 'how much' has been learned rather than what has been learned:

"…because there are plenty of times when…you thought you would make x amount of progress" (Jude 3: 50-51). So here he is seeing learning in terms of an amount. We cannot say for sure what kind of quantity x is of course. Not only that, but he is talking in terms of the teacher. You thought *you* would make this progress.

How children are constructed

"…it means that they are all…they are all coming into playing badminton very much with similar ability" (Jude 2: 15-16).

He tends to talk as if this assumes that the group really are homogenous. Also, that 'ability' is the key defining factor. That motivation is not an issue? That he sees motivation as less important or even as a given? How is this a theory of learning? If he sees groups as homogenous, he is not looking for individuals? Does this mean he assumes that he is not really looking at the children?

Assessment

That the getting the grades and showing that 'can-do' things in all 8 of those criteria becomes another performance?

How does assessment help them teach?

They construct the focus of the criteria and then the children get acknowledged <mark>ort</mark> are recognised in this and the recording is a formal acknowledgement of this?

"…and we are trying to move away from that…we are saying ok that technical ability is very important…but there is a wider range of skill set…that we want to create here with these students and there are more things we want to develop…..we look at decision making…how well they are able…..to make decisions…..whether it is football or basketball or netball….. or gymnastics…or whatever it might be…what are their decision

making processes…can we improve that...make it quicker and make it more natural....we also look at two factors one we call character and one we call mindset…and that is looking…..at what they are like as a rounded sportsmen or sportswoman and sports women...you know…are they punctual...do they have their kit….do they…commit themselves to extra-curricular activities...do they help their teacher and their peers...are they polite…..all sorts of things that contribute to being a good sportsmen...but also a good human being" (Jude 3: 27-37)

So here the assessment criteria become the aims of the subject. The rationale is that the children can gain 'credit' or recognition by demonstrating competence in these domains of competence. It is noticeable that he refers to this as a 'wider range of skill set. To what extent does he see these skills as a learned ability? Can, those characteristics also be learned but are they skills?

"We want you to be able to show evidence of this grade by the end of the lesson (3: 49-52). So here it seems that for Jude, the object is not so much about deeper learning or increased mastery but is about achieving the evidence to 'get the grade'. His theories of the aims of assessment seem to lie more in practice than praxis?

It can be interpreted that he sees assessment as a tool...if it is a tool…it is something that has a function. Can assessment also be more about practice…or something else? Contradictions- he talks about how important it is not to do it to them but also talks about telling them how they might go up a grade.

So, in terms of theories of learning we can see that, for him, assessment is a means to chart progress. It can also be seen that he is talking in terms of 'revealing' or identifying how good the children are. To what extent is it progress in the activity or progress in those personal attributes? So, the purpose is to some extent, gain recognition by getting an improved grade. So, the assessment 'system' is very technical and has to be something that is learned and has to be performed?

So, we can see his theories of learning as interpreted from how he sees assessment is mainly about setting an agenda and then measuring how they are doing and so learning is measurable and visible…it is more to do with the teacher setting a frame and less about finding what sense the children are making of what they are learning.

The 8 areas of assessment- how do they link with what he says about aims of the subject in interview 1?

Assumes that teachers set the agenda

Despite this being a 'no levels assessment' he is talking in terms of 'levels'. Assumptions that learning is linear?

The grade is what you have achieved. So, in this way the securing or harvesting of the grade is more important than the mastery of the content?

Progress becomes an 'amount'. So 'progress' becomes something that has merit in its own right and is not necessarily linked to progress in something. Even that 'progress' is the point not mastery of the content in some way.

Tends to talk about groups as if they are homogenous.

Furthermore, an over-emphasis on methods of assessment, as opposed to what we learn about individual performances and about learning, underscores the technological aspect of assessment (Delandshere, 2001: 114).

"…assessment is mainly used for placement, selection and certification decisions, based on measures of what individuals know" (Delandshere, 2001: 114).

"There is a prevalent belief, even by those involved in the process of development, that assessment is primarily a matter of technique and procedure to which other concerns are subordinated" (Delandshere, 2001: 115).

- Tends to see classes as homogenous
- He takes it as a given that it is competitive as a positive thing. E.g. children comparing each other

- 'You move way past' assumption that the teacher is at the centre
- You scale it back – learning is linear
- The grade is what you have achieved- no mention of personal accomplishment. Learning has to be validated from outside.
- Learning can be bounded by the criteria.
- So, he tends to see learning in a technical way rather than a natural or life world fashion.
  - facticity-throwness. The givenness. When and where we live. We are cast into the world with no say so.
  - Falleness – we are acted on by outside structures fall into the ways that are meted to us. So, most of us are inauthentic. *This can be related to the idea that the policy discourse is 'speaking them'.*
  - Existentiality- authenticity. In this Dasein's almost potential for being. Not about honesty or sincerity but a consonance between how one lives and what one might be.

The grade becomes a proxy for achievement:

"…so say they have spent 3 or 4 weeks playing basketball…ok…that is what you have achieved in basketball" (Jude 3: 47-48).

Appendix 7

Darcie: Summary

Chapter 7	Personal Learning Theories
Espoused	• That PE is about learning communication. • She is a keen advocate of growth mind set • She seeks to develop student agency • She seeks to transform the learner • She advocates heurism
Implicit	• Sees classes in a norm referenced manner • Assumptions of convergence in learning growth mind set • Learning is a matter of 'picking up'. • Fast acquisition is not necessarily seen as learning?
Nuanced	• When asked about planning she says that she draws on key words and this is described as if the process of learning in her consciousness is convergent and bounded. When she describes the OAA lesson she is talking as if she employs a divergent approach and she is assuming that the process for the children is one of idiosyncratic personal sense-making. She also says that her key words are less useful in an OAA lesson. • She is talking about how she feels she is a better teacher now than when she started. She says that her capacity to ask questions has improved and then talks about the 'right' question to get the 'right' information. Here she is taking a convergent position but also speaks in terms of divergent outcomes.

Chapter 8	Developing personal and social qualities	Health and fitness	Knowledge, skill and progress
Espoused	Working together; team work; social interaction; away from desks; try new things; life skills; Lifelong goals; being active; team work; leadership; working independently; qualities are demonstrated; getting them active	Life-long goals; active life style continued beyond PE; Ideal future would be more breadth of opportunities; more specialist staff/ coaches;	Hierarchy; skills first; 'letting them loose'; skills first; assessment is more than measurement; learning as meaning making; 'gauging' progress;

Implicit	Qualities are revealed in PE; working as synonym for learning;	Competence revealed; what competence is assumed?; 'work' as a synonym for learning; 'purposeful activity' rather than learning; 'doing fitness' rather then leaning about it or improving it	Taking a more experiential approach; children need to go through a process.

Chapter 9	The 'good' student	Motivation	Entity and incremental perspectives	Classes viewed, principally, as homogenous groups
Espoused	Just gets on with it; children creative when teacher withdraws;	Motivation can be 'given'; competition is motivating; sick note culture; lack of engagement is due to lack of confidence;	She is surprised by students who 'step forward'; problems of fixed mindset; dealing with new situations; positive reinforcement; fixed end point; children can be held back by their mindset;	This group as independent learners; giving leeway to group; strategy works with whole class; some children not worried
Implicit	Low maintenance; could teacher	Motivation as transmission; motivation to do task or to learn from it; she expresses a lack of agency?; it might be that increased confidence comes from feeling of achievement.	Expectations; behaviourist theories?;	she differentiates between classes not within classes

Chapter 10	The relationship between teaching and learning	Conceptions of teaching, learning and understanding	Theories of teaching that assume learning is visible and rational
Espoused	Key words 'drilled' in; strong advocacy for independent learning; assumptions of linearity; power of teacher questions; assumptions of teacher and children building a relationship/ contract'; 'ingraining' assessment structure; strong support for open ended tasks; let go of reins; social learning; assessment leads learning; teacher must stand back;	Assessment leads teaching; looking for levels of progress and understanding; who takes the lead? ; working towards targets;	Levels of progress; speed of progress; clear rational linearity; endorses norm referenced perspective?; where children are;

Implicit	Assumptions of transfer;	Separation of dimensions; competence revealed?;	State of competence a location; technical perspectives on learning; norm referenced perspective; 'progress' is reified;

Dylan: Summary

Chapter 7	**Personal Learning Theories**
Espoused	• That he 'sees' understanding in the children • That learner is aware of processes • That the lesson is about seeking happiness • That heurism is a powerful way to learn • That learning in PE involves thinking • Children 'know' why they are doing what they are doing.
Implicit	• That learning is a rational process • That how he teaches depends on how he trusts the class • Learning is done 'on their own'. • He 'allows' time to practice- it is a privilege? • Learning is transfer • Learning can be finished
Nuanced	• When talking about the aims of PE it was couched principally in terms of social development and inclusion. When he spoke about his exemplary hurdles lesson, he tended to focus on technical development. The social development was moved to the periphery. • He frequently spoke about the children learning in a rational manner. As if it was visible, subject to high levels of awareness and discursive consciousness. When he spoke about how he taught, he drew on notions of tacit knowledge and intuition.

Chapter 8	Developing personal and social qualities	Health and fitness	Knowledge, skill and progress
Espoused	Life skills; competitive situations; team work; communication; sporting; winning and losing	Only mentions this in terms of the 'ideal' child in PE	life skills, accepting defeat graciously; skill seen in a social sense
Implicit	Hierarchy PE as sport Learning to compete or learning through competition;		social skills are revealed?; life skills not evident in lesson description;

Chapter 9	The 'good' student	Motivation	Entity and incremental perspectives	Classes viewed, principally, as homogenous groups
Espoused	Learn to learn by themselves; needs less help; confident; polite; brings kit; good all-	Children enjoy being with me; his character helps; grades help children 'see' progress;	Setting Year 7 children; defines children by ability; more able 'have' life skills already;	John's groups more socially aware; all members of the class have similar

	rounder; helps at clubs; fitness 'is there'.			predispositions'; class made progress; he does not differentiate progress.
Implicit	Independent and possibly low maintenance; eclectic perspective on this.	He sees as this being about relationships;	Entity perspective; learning can be finished;	Does not differentiate between children; no expectation differentiation will be done; he may not feel it is important;

Chapter 10	The relationship between teaching and learning	Conceptions of teaching, learning and understanding	Theories of teaching that assume learning is visible and rational
Espoused	Children can be 'given' a picture; importance of meta cognition; children 'filled' with confidence; confidence tangible; teacher demeanour 'rubs off on children; teaching social values; teaching for inclusion; 'letting them loose'; use 'own brains'; giving the leash;	Seeing progress- competence revealed; progress made in various dimensions; learning is 'displayed'; children must understand to progress;	See understanding; looking for cues; summative assessment and assessment as measurement important; see them mentally assessing;
Implicit	Assumptions of transfer; learner moves; recognizes class 'mood' he has little agency;	Assumption that learning is learning 'new' content; assumption that cognition is about high levels of awareness.	Assumptions of 'visibility'; some creative extrapolation?

Jude: Summary

Chapter 7	Personal Learning Theories
Espoused	• Learning in PE is about decision making • There are 'right' options • Competition is energising for all children • Assessment is vital in order to chart progress • Teacher is at the heart of classroom events
Implicit	• Assumptions of convergence? • The capacity for decision making is not situated in context. • The process is about revealing competence • The 'lesson' has worth as a performance • Success in learning is 'how much' • Teaching can 'cause' transfer

Nuanced	• He is an advocate of leadership. Tends to talk in terms of revealing it more than developing it. • Tends to assume that PE can develop leadership and is not obviously concerned with how it is taught. • He speaks about leadership as a skill and also as a trait. • He talks of assessment as being a way for teachers to be able to judge progress and also about children showing the teacher that they are worthy of a particular grade.

Chapter 8	Developing personal and social qualities	Health and fitness	Knowledge, skill and progress
Espoused	Leadership; coaching; developing character; motivation; mindset; core character traits; reveal 'true character'; coming out of their shell; assessment of wide range of aspects; confidence as an aim;	Activity for life long benefits and also for PE; Diet; It is about improving fitness; health and life style; being fit	Understanding of tactics; life skills; communication skills; can be learnt in a decontextualized manner; can be broken up;
Implicit	Talks in terms of 'looking at' Children are 'judged' Developing traits; core character traits; summative assessment is privileged; performative; children have an essence; low self-awareness;	Less about learning about fitness; learning as transmission; fitness is a virtue- a preferred state?	Sees children in norm referenced manner; context not necessarily a factor;

Chapter 9	The 'good' student	Motivation	Entity and incremental perspectives	Classes viewed, principally, as homogenous groups
Espoused	Technical ability; character; follows rules; committed to learning;	Children like the staff; once the children know the teacher things work well; competition pushed them forward; children want to be seen in a good light by teacher; winning them over;	Younger children' rough and tumble; new activities -all children on level playing field; 'practical' and 'academic' students; decision making is a 'global' quality; teaching a good lesson affects the whole of PE;	What group are capable of; depends on the activity being taught; starting at the bottom, children can be in top 5 but not understand very well;
Implicit		He is being inauthentic?; winning or task mastery;	Students defined by their abilities; opens up new fronts for acknowledging competence;	Teaching games or teaching children'

Chapter 10	The relationship between teaching and learning	Conceptions of teaching, learning and understanding	Theories of teaching that assume learning is visible and rational

Espoused	Life skills; transfer to outside world; 'you' are doing badminton; changes in his approach causes learning; teacher structure has specific effect; assumptions about 'conditions'; teaching how to accept defeat; advocates heurism; lesson progresses; planning questions;	Physical progress is easy to see; he deepens understanding; how things 'feel' for children; understanding is 'brought out'; quality answers with wait time.	See learning; physical learning g easier to see; easy to see improvement; technical progress; good questions prompt inclusion'; seeing where children are;
Implicit	Assumptions of causal relationship; takes teacherly view; sporting discourse privileged?; he sees attitude as a skill; lesson as a performance;	Privileging discursive consciousness; causal relationship; very nuanced perspectives; competence revealed;	Child participation in lesson is key; state of competence is a location;

Ruby: Summary

Chapter 7	**Personal Learning Theories**
Espoused	• Lesson objectives are crucial • Assumption that the children learn from teacher explanation • Good teacher knowledge is essential for learning- Teacher is at centre of events • Learning is visible and measurable
Implicit	• Objectives are privileged • Takes a generally technical perspective • Does not acknowledge the place of tacit knowledge • Learning can be finished
Nuanced	• Talks about PE as a change to discover the thing you are good at. A case of competence revealed. She also talks in terms of progress. In this, sometimes refers to 'progress' as a thing in its own right. • At times she spoke about the lessons in a very divergent manner with references to children 'exploring' and learning about health and fitness. At times she is advocating independent learning and there is a sense she is happy to empower the children. However, she also talks in terms of 'letting the children understand' which implicitly suggests she feels she has power'. Also, the focus on progress seems to run slightly contrary to this.

Chapter 8	Developing personal and social qualities	Health and fitness	Knowledge, skill and progress
Espoused	Thinking for themselves creativity; leadership skills; more able act as leaders; introverted students 'come through; self-esteem; fair play; sense of development; confidence as an aim;	'doing' health and fitness Understand what is happening to their bodies when they exercise; strong advocacy; motivation; getting changed is a barrier;	New skills; exploration; learning can be finished; skills can be 'given'; 'go away' to practice; children automatically peer assess; teaching as delivery; critical thinking by the children important; general references to knowledge;
Implicit	Teaching and learning causal; competence is revealed; defining	Doing fitness or learning about it?; ambiguous?; instances of inauthenticity?; girls defined by	Assumptions of transfer; discursive consciousness;

	feature of children is their personality; leadership is peer teaching?	their bodies?; changed to content is a solution;	learning can be 'finished'; expresses lack of agency;

Chapter 9	The 'good' student	Motivation	Entity and incremental perspectives	Classes viewed, principally, as homogenous groups
Espoused	Only draws on notion of independence when talking about aims of the subject; leadership skills; extrovert; happy; passionate for sport; keen to please the teacher;	Eager to please teacher; children need to be inspired; you teach the lesson objective; get them moving; don't need motivating in maths; you have to get them going; they have got to be active; kids like to see the grade; lack of motivation to be expected; some children become lazy; younger children love PE	It is about finding the activity that you will be good at; curriculum as a 'buffet'; personality is key; developing in a range of ways;	
Implicit	Described in terms of doing;	The objective has become the point? (Learn the lesson objective); activity as learning?; implicit subject hegemony?;	Competence as a match between person and activity; competence will be revealed?; curriculum is there a trade-off between variety of activities and/or developing competence;	

Chapter 10	The relationship between teaching and learning	Conceptions of teaching, learning and understanding	Theories of teaching that assume learning is visible and rational
Espoused	Teachers sets rules; you can 'see' difference in confidence; giving ownership; children must think for themselves; rapport with children;	What to see in a good lesson- expectations, differentiation; has ideas of stages of activities; teacher monitors; go away to practice; tasks are given; possibility of tacit knowledge;	Assessment is 'given' to her; is level important?; seeing where children are; leadership leads to ownership;
Implicit	Assumptions of teaching causing learning; sees teacher as holding power;	No specific reference to learning as a form of trajectory;	State of competence is a location; teaching and learning in a causal relationship

Interpreting PE Teachers' Personal Theories of Learning