

# **Influences on beginning teacher construing: beliefs, stories and trajectories**



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# ABSTRACT

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This study focuses on the experiences of beginning teachers in the British Army's training and education branch. The research sought to identify what influenced participants' construing about teaching and learning, teacher identity, role, and trajectory during initial teacher education. By utilising Personal Construct Psychology (PCP) and Communities of Practice as analytical frameworks, the impact of influences on the construing of the research participants was identified.

The research was underpinned by a constructivist and interpretive epistemology and utilised a collaborative, narrative-based case study approach. Interviews, Repertory Grids and Trajectory Targets were used to provide insight into the construing and experiences of the participants during their teacher education. The research was conducted by a former Army officer and data were collected from and analysed with five participants during their teacher education programme.

Research data suggested that these beginning teachers were highly influenced by their previous experience as a student and this experience left strong personal biographies and images of teaching that appeared to be maintained throughout their early explorations of professional practice. The beginning teachers in this study appeared to rely heavily on these stable images and constructs during their early practice when classroom 'survival' was paramount and at this point attached little value to the pedagogical content of their teacher education programme. Data further suggested that it is only once these beginning teachers built a level of confidence, began to 'routinise' aspects of their practice, and had the opportunity to validate their initial images of teaching that they become more receptive to other influences such as their teacher education or their community of practice. This confirmed the findings of a number of other studies and, by utilising the theories that underpin PCP, a rationale for this situation was advanced.

The implications of the research findings suggest that care must be taken to ensure that teacher education courses are designed to allow the opportunity for beginning teachers to critically analyse and validate their initial beliefs and constructs through the experience of practice before embarking on significant theoretical and practical pedagogical content. It is argued that this initial period of professional practice provides the opportunity for beginning teachers to develop the cognitive and emotive dissonance or 'anxiety' that appears to be required before they are willing to step away from the relative stability and safety of their personal biographies. Based on these research findings a '4-dimensional' pedagogical model (Do, Discover, Diversify, Deepen) is developed to underpin the design of practice-based teacher education programmes.

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# 1 INTRODUCTION

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## 1.1 Background

### 1.1.1 Teacher Education and Training: Conceptualisation and Organisation

A 2005 Organisation for Economic Co-operation and Development (OECD) report titled 'Teachers Matter' argued that '...of those variables potentially open to policy influence, factors to do with teachers and teaching are the most important on student learning' (p.7). More recently it has been asserted that teachers not only matter in terms of student achievement but also in their contribution to their social, personal and intellectual well-being. Students, it was argued, 'learn because of them – not just because of what and how they teach but because of who they are as people' (Jephcote & Salisbury, 2009, p.966). This suggests that the effective preparation of teachers for classroom practice may have a significant impact on student experience and attainment, a view that is supported by White & Jarvis (2013) who comment that:

'Outstanding learning [in schools] depends on the quality of the teachers. Initial teacher training enables individuals to be effective, purposeful practitioners and reflective professionals able to creatively prepare future generations for the challenges ahead' (p. xi).

However, teaching and teacher education in the post compulsory sector, which is the setting for this study, has undergone a period of unparalleled change. Successive governments have sought to realign the relationship between post compulsory education and the state, drawing on a series of policy documents that make explicit links between the development of a firm skills base and economic success (DfEE, 1998, DTI & DfEE, 2001, DfES, 2002; DfES, 2006). This has resulted in a sector that has been redefined and renamed at least 5 times since the early 1990s and has been the responsibility of a range of government ministries, funding organisations and quangos.

During this time the sector has undergone a shift from a position of relative autonomy to one where central government exerts influence on both curriculum design and delivery. These policy changes have had a noticeable impact both on the way in which teaching and learning in the post compulsory sector is conceptualised (in particular the increasingly managerial and performative role of the teacher (Bathmaker & Avis (2005)) and how teachers are subsequently trained and educated to meet the increasing range of policy requirements.

The post compulsory sector (also known as Further Education (FE) or the learning and skills sector) is one in which the conceptualisation of the teacher has been significantly different to

that within schools. Indeed, this sector has traditionally had more in common with an ‘apprenticeship’ model of education and as a result, the occupational knowledge and skill of teachers has often taken primacy over their pedagogical knowledge and skill (Simmons & Thompson 2007; Orr & Simmonds, 2010). It has therefore not been unusual to find teaching practitioners in post compulsory settings without formal teaching qualifications.

The perceived failings of the sector to deliver the skills required for economic success have been the focus of increasing levels of policy intervention since the early 1990s, much of which has centred on increasing control of both curriculum and teacher education whilst moving the sector away from being an ‘unfashionable and locally run service’ (Orr & Simmonds, 2010, p.77). The Fryer Report (1997) and the Kennedy Report (1997) both identified the need for a coherent post compulsory teacher training strategy. The establishment of the Further Education National Training Organisation (FENTO) and the development of the FENTO Standards for Teaching and Supporting Learning in England and Wales (1999) signalled the Labour government’s view that both pedagogic and occupational knowledge and skills were required to deliver successful teaching and learning. This view was further formalised in 2001 with the requirement that all post compulsory teachers in England were required to gain a teaching qualification<sup>1</sup>. Whilst this attempt to ‘professionalise’ the sector led to 70% of full-time staff being qualified by 2004 (Simmons & Thompson, 2007) it failed to deliver the parity in status with school teachers that many saw as the benefit of the professionalisation agenda. Despite this lack of parity a full Ofsted-like inspection regime was instigated within the post compulsory sector. Further policy papers ‘Equipping our Teachers for the Future’ (DfES, 2004) and the FE workplace regulations (DUIS, 2007) went on to formalise the requirement for Continual Professional Development (CPD) and instigated the development of, and registration with, a professional body in the form of the Institute for Learning (IfL)<sup>2</sup>. This period led to a proliferation in the range and types of teaching qualifications available for prospective teachers with the addition of the Preparing to Teach in the Lifelong Learning Sector (PTLLS), Certificate in Teaching in the Lifelong Learning Sector (CTLLS)<sup>3</sup> and Diploma in Teaching in the Lifelong Learning Sector (DTLLS). These ‘new’ qualifications served to complement the more traditional post compulsory Certificate in Education (Cert Ed) and Post Graduate Certificate in Education (PGCE) courses. Despite this range of qualifications, and in contrast to the schools sector,

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<sup>1</sup> Enacted through Statutory Instrument 2001 No 1209 The Further Education Teachers’ Qualifications (England) Regulations 2001

<sup>2</sup> Enacted through Statutory Instrument 2007 No 2116 The Further Education Teachers’ Continuing Professional Development and Registration (England) Regulations 2007

<sup>3</sup> Both derived from the City and Guilds 730 series of qualifications

90% of teachers in the sector still undertake their training in-service and therefore part-time (Orr & Simmons, 2010).

Once qualified, and following a period of 'professional formation' the IfL offered, albeit on a voluntary basis, Qualified Teacher Learning and Skills (QTLS) status to appropriately qualified individuals. Subsequently, in 2012, it was confirmed in law<sup>4</sup> that holders of QTLS have Qualified Teacher Status (QTS) and may be appointed to permanent school positions as qualified teachers without further induction or training requirements, finally providing what many saw as parity in status (if not in pay and conditions) with school teachers. Paradoxically however, this increasingly formalised requirement for the training, education and professional development of post compulsory teachers was accompanied by changes to central funding arrangements for teacher education. This appeared to shift the responsibility for the provision of qualified teaching staff away from central government and towards industry.

Despite the increasing central control, post compulsory teacher education and training was not without its critics. The 2003 Ofsted survey found that teacher training in FE failed to provide 'a satisfactory foundation' for FE teachers (p.4) and the 2006 survey Ofsted reported that there was a significant difference between the quality of the taught element of post compulsory teacher training (which was good) and the practice elements, particularly subject specialist mentoring (which was inadequate). Ofsted's findings that the taught elements were good however appears to contradict the views of Orr & Simmons (2010) and Orr (2012) who suggest that there is a noticeable separation between teachers' training and the reality of everyday teaching.

The election of the coalition government in 2010 led to a significant change in thinking with respect to teacher training which has impacted on both the school and post compulsory sectors. The Standing Council for the Education and Training of Teachers published 'In Defence of Teacher Education' (SCETT, 2011) in response to the coalition's white paper for schools entitled 'The Importance of Teaching' (DfE, 2010). The SCETT response (2011) draws attention to the coalition's apparent intention to reverse the emphasis on Higher Education Institution (HEI) based teacher education programmes. Indeed, the report states that teachers need 'educating as opposed to training' (2011, preface) and suggests the coalition government sees teaching as a practical trade or craft, most effectively learned in the workplace (Crawley, 2012) and through a pedagogy more akin to an apprenticeship.

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<sup>4</sup> Enacted through Statutory Instrument 2012 No. 431 The Education (School Teachers) (Qualifications and Appraisal) (Miscellaneous Amendments) (England) Regulations 2012

This has led to a number of routes to achieving Qualified Teacher Status (QTS) for primary and secondary teaching which still include the traditional, HEI-based Post Graduate Certificate in Education (PGCE) courses as well as a range of employment and school-based routes such as the Graduate Teacher Programme<sup>5</sup> (GTP), the 'School Direct' and 'Teach First' programmes, as well as School-Centred Initial Teacher Training (SCITT). Within this variation of routes and qualifications for school teaching there is an emerging trend for teacher education to become more practice-based with a change in emphasis in primary and secondary teacher education specifically towards school-led professional education and development. Read (2013) writes that:

'The initial teacher education partnership between schools and universities is in a state of flux. As new roles develop and the responsibilities are realigned, it is vital that the wealth of practice experience, the criticality and rigour of academic study and the opportunity to have a vision for education which exceeds the immediate context are preserved' (p. ix).

There has been a similar revision in thinking by the coalition government for the post compulsory sector. The 2012 Lingfield Report (2012b) entitled 'Professionalism in Further Education' has sought to reverse many of the initiatives through which the previous government underpinned their professionalisation agenda. The report cites disputes over the 2007 workplace regulations, which it describes as 'unintended consequences' (2012, p.18), as one of the reasons for initiating the review. Lingfield's interim report (2012a) makes a number of recommendations including, most notably, the revocation of the 2007 regulations and the cessation of funding to the IfL. Whilst mandatory registration with the IfL was terminated, the report recommended maintaining routes to QTLS. This apparent policy U-turn has been seen by commentators in the post compulsory sector not just as an attack on its professionalization agenda but as an attack on teaching itself (IfL, 2013). Indeed they highlight that the Lingfield Report was published on the same day that research suggested there was 'compelling evidence that regulations and qualifications do, in fact, have a profoundly positive impact on FE teaching and learning' (IfL, 2013, p.13).

It would appear then that the coalition government is stepping back from the central control that was at the centre of the previous government's professionalisation agenda for the post compulsory sector. Whilst maintaining a call for a recognisable and consistent sense of professionalism within the sector, Lingfield (2012b) suggests that this can be more effectively achieved through an 'FE Guild' which would serve the interests of both teachers and their employers.

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<sup>5</sup> The GTP will end following the 2012/13 academic year.

It might be argued therefore that the current government's view is that the development of a professional body of teachers, whether for schools or for the post compulsory sector, is best achieved by the teaching profession themselves and aided by reduced central government control. This might account for why the direction of travel for initial teacher education appears to be away from the apparent control and centralisation of the HEI setting and towards a more practice-based, school-centred approach. This would suggest that research which examines teacher education in such a practice-based, workplace setting would be highly relevant.

### **1.1.2 Teacher Education and Training: Pedagogy**

Within the context of a contested and changing conceptualisation and organisation of teacher education there is also an accompanying debate surrounding the pedagogical approach to pre-service programmes. The pedagogy that underpins teacher education programmes does not always appear to be linked to either the current political agenda or indeed the assumptions that are at the source of such well-used statements such as 'good teachers are born' which some commentators suggest is at the heart of current government policy (Cliffe, 2012).

The pedagogy of teacher education is complex and multi-layered; it is not simply the act of teaching – which can be easily misinterpreted as the transmission of information (Korthagen, 2001; Loughran, 2006) – but is centred on the relationship between teaching and learning and the development of understanding through meaningful practice. For the student of teaching and learning this means managing the competing agendas of learning what is being taught while simultaneously questioning, examining and learning from the way in which the teaching is constructed and the way in which practice is used to support subsequent learning. From the perspective of teacher educators this is further complicated because the relatively short period available for teacher education means that distinct choices about content and strategy have to be made.

To learn to teach in the limited time available, students of teaching need to be aware, not just of their own meta-cognitive processes, but of their assumptions about teaching and learning and how these may shape and influence their own learning. For example, Berry comments that:

'Student teachers' expectations of their pre-service programmes are strongly influenced by their prior experiences as learners, together with popular stereotypes about teachers' work. Student teachers commonly enter their teacher education with a view of teaching as of telling students what to learn' (2004, pp.1301-1302).

This suggests that learning about teaching involves unpacking the process in a way that exposes the reasoning, uncertainties, unknowns and dilemmas of classroom practice and presents teaching as complex and problematic. Learning about teaching, according to Loughran (2006), should therefore not be confused solely with modelling the practices of more experienced teachers or adopting a 'hunter-gatherer' approach by simply accumulating a variety of teaching procedures (p.45). Darling-Hammond et al (2005) cite the complexity of teaching, previous experience, and the difficulty in enacting teaching intentions as the three main 'problems' that need to be overcome when learning to teach.

Other teacher educators focus on the development of 'teachers as adaptive experts' (Hammerness et al, 2005, p.360). The purpose of teacher education from this perspective is to develop the efficiency and innovation in practice which are key dimensions of expertise. Efficiency is the ability to conduct routine aspects of classroom practice without having to dedicate too much cognitive resource to achieving them. Innovation is the ability to move beyond existing routines and adapt practice when required. The process of unlearning efficient routines can be cognitively difficult, emotionally painful, and may initially reduce efficiency when well-established techniques and approaches are replaced by new and emerging ones. Choosing what to practices to keep, what to modify, and what to replace is a big part of being an adaptive expert, indeed, from this perspective '...discovering the need to change is not perceived as a failure but an inevitable, continuous aspect of effective teaching' (Hammerness, 2005, p.363).

There have also been a number of stage theories advanced which try to explain teacher development. Fuller (1969) for instance suggested that teachers develop in phases, focusing initially on themselves and their own practice; only attending to student learning as they become more experienced. Some teachers develop a strong focus on pastoral care which drives their approach to teaching; others develop techniques on the basis of efficiency. More recently Berliner (1994) proposed that teachers develop stages from novice, to advanced beginner, competent, proficient, and expert over time; competence is developed over 5-7 years and only small proportion become expert. Stage theories, however, present teacher development as a linear process that occurs in a predictable fashion but there may be a more variable path that reflects not only the background, abilities, and concerns of the individual students, but is also linked to the pedagogy that underpins their professional development. Pedagogical approaches include knowledge for practice, knowledge in practice, and knowledge of practice (Hammerness et al, 2005). The first is the kind of knowledge the teacher will rely on when developing their practice – knowledge of subject matter and pedagogy – the traditional focus of teacher education. The second emphasises what experiences teachers know and express tacitly in their practice. This is

highly situated, practical and acquired through reflective and reflexive processes. The third focusses on the relationship between knowledge, practice and theory.

Darling-Hammond et al (2005) contend that whilst there is no single 'best' way to arrange a teacher education programme there remains some common pedagogical considerations that should be addressed when shaping a pre-service programme.

**Programme connection and coherence.** A strong pedagogy would see a robust connection between theory and practice and a clear conception of what teaching and learning is. This would prevent a teacher education programme from becoming fragmented or incoherent and therefore a weak agent for changing classroom practice. There has been considerable effort in the last 30 years to develop stronger links between coursework and 'clinical' experiences (Darling-Hammond et al, 2005) and these have emerged as pedagogies which suggest the teacher needs to do more than implement particular teaching techniques; they need to wrestle with classroom dilemmas and investigate problems. Learning coherence is achieved when learners encounter this approach across their different learning experiences.

Loughran (2006) appears to believe that pre-service programmes should follow a more cognitive than skills-based approach. Indeed, Loughran's pedagogy appears to be underpinned cognitively through the concepts of episteme and phronesis. Lunenburg & Korthagen (2009) describe episteme as the abstract and expert-knowledge that researchers develop, 'theory with a big T' (p.226). Episteme is rather different in nature than the type of experiential knowledge that underpins the practical wisdom, sensitivity and awareness that facilitates perceiving and acting in classroom situations – this is called phronesis (Lunenburg & Korthagen, 2009). Theory, they write, fulfils our need for order and verification, but experience is what one gains from operating in the real world. Different views have developed about what type of knowledge counts as the professional knowledge of teaching. The differences between types of knowledge have often been obvious in the judgements about their perceived value. Traditionally, formal, abstract knowledge (episteme) has been seen as high-status whereas practical knowledge (phronesis) has been relegated to a lower status. These judgements have been mirrored in the division of labour in traditional teacher education programmes in which a university occupies the world of theory, and school the world of practice and thus:

'...the stereotypical and traditional teacher education programme appears to be constructed on this differentiation through structures that suggest that theory is taught in a university so that 'knowledge' might then be practiced in schools by student-teachers whose job it is to provide the individual effort to apply such knowledge' (Loughran, 2006, p.44).

Korthagen & Kessels (1999) concur with this view suggesting that the conception of a teacher education programme in which 'experts' in universities teach knowledge which is then transferred to the classroom is how teacher education became teacher training (p.4). However, the transfer of epistemic knowledge to the classroom is problematic for a number of reasons. Firstly, previous conceptions about teaching prove remarkably difficult to shift. Not only can this make change a difficult and lengthy process, it also means that these preconceptions serve as filters when making sense of the theories and experiences of teacher education (Korthagen, 2001). Indeed, early practical experiences in the classroom tend to strengthen not weaken traditional views of teaching and learning (Korthagen & Lagerwerk, 2001). Secondly, the initial lack of classroom experience means that student teachers are often not aware of the relevance or usefulness of the ideas that are presented and therefore initially resist them (the 'feed-forward' problem (Korthagen & Kessels, 1999)). Thirdly, student teachers need quick and relevant solutions to the immediate problems they face in the classroom (phronesis) and therefore action-guiding knowledge is more valued by students than abstract knowledge. Add the pressure to perform well and the immediate need to 'survive' in the classroom it is little wonder that many students find their teacher education programme a difficult environment to embrace personal change. Indeed Korthagen (2001) highlights that in this environment if a teacher fails to succeed as a transmitter of information they are more likely to try harder to become a better transmitter rather than change their basic conception of teaching. Therefore illustrating the paradox that pressure to change often prevents change.

Korthagen (2001) contends there are 3 principles that should underpin a pedagogy of teacher education that share one common constructivist theme – that learning is something that has to come from the student – but it can be encouraged. Korthagen's principles suggest that teacher education should help the student become aware of their own learning needs, help the student to find useful experiences, and help the student reflect on these experiences in detail.

Lunenburg & Korthagen (2009) go on to highlight what they believe is a triangular relationship between practical wisdom, theory, and experience - all of which are required and all of which are different in nature. It is the teacher, they suggest, that makes these elements come together in classroom practice. Lunenburg & Korthagen (2009) suggest that teacher education programmes should concentrate on helping students gain practical wisdom, theory and experience in connection with each other. Whilst Lunenburg & Korthagen (2009) state that accessing this triangle can be achieved from any angle it is clear that teacher education programmes that use theory as their pedagogical gateway, for



example, will be very different in character and pedagogical approach to those which focus on experience.

**Programme scope and sequence.** As well as developing a coherent and connected pedagogy, teacher education programmes must also consider the content of teacher education, the learning process itself, and the learning context. All of these considerations are heavily influenced by the core pedagogical and epistemological perspectives that underpin the design of a programme. Adopting a constructivist epistemology, Darling-Hammond et al (2005) suggest that prospective teachers learn different things from teacher education and feel differently well prepared for different aspects of teaching depending on the 'pathway' (p.395) into teaching they have followed and the nature of the pre-service programme they have completed. For example, teachers who participated in so-called 'traditional' teacher education programmes that emphasised classroom management and the more technical aspects of teaching have been found to be more concerned with the technical aspects of their subject but those who had completed 'reform-oriented' programmes tended to focus on student motivation and strategies (p.396). Teachers who have had the opportunity to interact with the course material in the manner of a student were found to be more likely to interact in those practices with their students. When it comes to what prospective teachers learn therefore, these different pedagogical approaches may be significant.

Darling-Hammond et al (2005) suggest that an acknowledgement that some approaches to teacher education are more effective for basic skills learning whilst others appear to support more transferable learning of complex and higher-order skills has led to an increased focus on the pedagogy of teacher education. This has seen pedagogy shift from a focus on classroom management and 'trade skills' (which centres on the actions of the teacher) to an emphasis on classroom learning (which centres on the actions of the students). When thinking about how this content should be presented, Darling-Hammond et al (2005) highlight the importance of what they describe as 'readiness' for learning which brings to life and links practice and theory. Readiness, they argue, '...underpins scope and sequence because it involves identifying foundational ideas and experiences' (p399). Once again they offer a constructivist view that the start point for learning is always prior knowledge and a connection needs to be made between this knowledge and the new opportunities for learning. This approach is important because it helps to generate a scaffold that is bespoke to each student teacher whilst allowing them to deal with the common problems and concerns of teaching, such as classroom management or lesson planning.

More 'traditional' teacher education pedagogies see practice as a culminating experience, applying a 'theory-into-practice' or 'application' pedagogy (Lunenburg & Korthagen, 2009, p.228) however, many programmes now see the opportunity to learn about practice *in* practice as a method to address both individual and common learning goals. Indeed deliberate and carefully constructed practice can be a powerful and effective vehicle with which to link students' previous knowledge and the programme coursework to the learning opportunities created in authentic practice (Denton, 1982). This type of fieldwork may create the conditions which allow the students to more effectively identify areas for development, select appropriate strategies, and solve dilemmas common to teaching. Again, modern learning theory might emphasise the situated nature of this type of learning and would highlight the importance of authentic communities, artefacts, materials and tools, and in providing the context for learning. Indeed Darling-Hammond et al (2005) maintain that contemporary research suggests that learning about teaching '...develops through participation in a community of learners where content is encountered in contexts in which it can be applied' (p.403).

Darling-Hammond et al (2005) highlight that a number of pedagogical approaches have emerged in response to those enduring problems of learning to teach; the complexity of teaching, previous experience, and the difficulty in enacting teaching intentions. Many have been developed specifically to more effectively link theory and practice and to focus on learning in practice. Perhaps the most ubiquitous pedagogical approach is the use of student teaching experiences. Lunenburg & Korthagen (2009) highlight that teacher education programmes worldwide have moved towards a more practice-based curriculum and students spend more time on placement than they did 10 years ago. Teaching experiences range from teaching practice workshops and micro-teaching sessions in HEIs, through individual and small group teaching during placements, to whole class teaching in an authentic environment – indeed this has been the traditional practice model for most post-compulsory teacher education programmes. Whilst the ideal placement might involve purposeful and effective mentoring combined with increasing level of responsibility for student learning, the reality is that programmes can vary widely in their pedagogical use of teaching practice. Darling-Hammond et al (2005) point out that the different approaches to what they describe as 'clinical experiences' (p.409) all have strengths and weaknesses but it is important that careful consideration is given to what the clinical experience should be and why so that the programme can optimise the learning experiences created. This is where theories of learning can be used to support the design of teacher education programmes and the use of teaching practice within them. Darling-Hammond et al (2005) also suggest that regardless of the learning theory that underpins the design, teaching practice should always be clear

about the goal(s) of the experience, allow for the modelling of good practice, make visible the thinking of more experienced practitioners, comprise continuous feedback and coaching, link coursework to practice, involve graduated responsibility, and allow time for reflection. Nevertheless, there is evidence that HEIs still privilege theory and thus the shift towards practice-based teacher education may not in all cases be allowing student to develop the 'practical wisdom' desired (Lunenburg & Korthagen, 2009, p229).

There is evidence that teaching practice is most effective when pre-service teachers are helped to make sense of their experience through the support of expert practitioners. To support this contention Darling-Hammond et al (2005) suggest there are a number of studies which conclude that '...powerful learning does not usually occur from letting a teacher "sink or swim" [in the classroom]' (p.412). This may suggest that novices need both cooperating teachers to help make sense of classroom experiences through mentoring and modelling, and HEI supervisors to help connect the theoretical (episteme) with the 'wisdom' they are gaining in the classroom (phronesis) and thus archive tighter programme coherence. This level of support is vital if students are to overcome what Darling-Hammond et al (2005) describe as the 'two-worlds' pit fall (p.414), that is the apparent disconnect between episteme and phronesis which leave many novices confused, guilty and discouraged about their ability to be successful in the classroom.

One of the potential problems of practice-based teacher education is that it can lead to a 'task-performance' view where competence assessment is centred on public exhibitions of practice. This suggests that specifying and observing these task performances can quickly become divorced from a well-grounded and solid base of theory and consequently, corresponding performances become little more than 'tallies of actions' (Darling-Hammond et al, 2005, p.423). To counter this, many programmes have adopted so-called teaching portfolios which typically collect together examples of student teachers' work and may contain statements about their educational philosophy, personal theories, and classroom approaches. Some may contain the results of teaching observations or the analysis of educational papers. During a hectic and often stressful programme, teaching portfolios help to reduce 'pedagogical amnesia' (Darling-Hammond et al, 2005, p.424) by helping students of teaching to reflect upon their learning (Wade, 1996), demonstrate their development, and illustrate the often tacit thinking that underpins 'task performances' in the classroom. However, just like the design of teacher education programmes themselves, the pedagogical approach to portfolios must be carefully considered; randomly assembled pieces of student work are unlikely to prove strong tools for changing students thinking about teaching and learning.

As Wade (1996) highlights, the use of teaching portfolios is linked to another, increasingly important, pedagogical approach for teacher education – that of the reflective practitioner. The notion of the reflective practitioner is underpinned by the view that a teacher should be more than a ‘technician’ (Parsons & Stephenson, 2005, p.96) who is able to meet a list of standard competencies; a teacher should be able to think reflectively about their practice. In 2000, 70% of all teacher education programmes in England and Wales claimed to be underpinned by reflective practice (Griffiths, 2000). Yet for all its apparent ubiquity, reflective practice remains a concept with a problematic theoretical grounding and a diverse range of empirical approaches (Collin et al, 2013); for many in the field, the seminal work of Schon (1983), particularly his notions of reflection-in-action and reflection-on-action, continue to be the main influence. Parsons & Stephenson (2005) highlight however that the one idea that appears to remain constant is that, in teaching, the reflective practitioner is one who is ‘...aware of and able to monitor their own thinking, understanding and knowledge [about teaching]’ (p.97). Reflective practitioners are therefore able to identify and diagnose the types of problematic issues or situations within their own practice for which there is no apparent or straightforward way to proceed. The importance of developing a reflective approach during teacher education programmes is aptly illustrated by Parsons & Stephenson (2005) who highlight that:

‘It is interesting that on occasions, the students that fail a school placement are those who do not seem to be able to identify such [problematic] areas in their practice - they pursue inappropriate paths seemingly unable to realise that an aspect of their understanding or knowledge is weak. They are slow to learn from experience, an aspect of knowledge closely related to reflection’ (p.97).

The reflective practitioner is able to do more than simply identify problematic practice however, and implicit within the concept is the ability to seek a solution using the appropriate and available resources. This might include directly applying or interpreting new theoretical principles, but might equally involve some form of social interaction with peers or colleagues.

To become a reflective practitioner, students in teacher education programmes must be encouraged to develop an awareness of their metacognitive processes as well as their underpinning beliefs about teaching and learning. The process of reflection might not just lead the student to change their approach in the classroom, it might also involve a change in the way in which the student perceives or acts when faced with a similar situation. Based on this new insight, it may also involve a modification of values or attitudes.

It is clear that encouraging and developing this level of critical reflection is important to equip teachers with metacognitive skills that have utility beyond the immediate context of the

teacher education programme. Indeed, it might be argued that critical reflection is at the heart of pedagogies which see teachers as adaptive experts (Hammerness et al, 2005) and therefore, like many pedagogical approaches or tools, critical reflection is not simply a strategy for developing initial classroom competence, but a professional skill utilised throughout a teaching career.

There are a number of other pedagogical approaches to teacher education and training that have become increasingly utilised in programmes aiming to bridge the episteme/phronesis gap as well as developing the skills of reflection and analysis in novice teachers. Case methods (the reading and analysis of selected 'cases') for example may offer an approach that can simultaneously support learning from specific contexts as well as identifying more generalised theory about teaching and learning. Typically, cases represent the problems and dilemmas of practice and as pedagogical approaches, can be used to access and develop students' analysis and reasoning (Darling-Hammond et al, 2005). Again, cases must be carefully selected and used at appropriate points in the programme if they are to be more than interesting teaching stories.

Autobiographies are also frequently used in teacher education to stimulate reflection on novices' previous educational experiences. Darling-Hammond et al (2005) writes that:

'...through autobiography, student teachers are able to not only to become aware of and articulate their own knowledge about teaching – knowledge that is often tacit and unexamined – but also bring it to the surface for examination, reflection and challenge' (p.435).

It is recognised however that there are some challenges in utilising this pedagogy effectively. The creation of a narrative is often more straightforward than the process of challenging the understandings that lie beneath it. Subsequently, novice teachers need carefully designed and scaffolded experiences to provide a productive context in which deeply held beliefs can be exposed and challenged. Darling-Hammond et al (2005) also point out that the use of autobiography may overemphasise the role of the teacher and locate them as a solitary actor who is both the source and solution to all teaching problems and dilemmas. The use of autobiography can also be a deeply personal experience and teacher education programmes have a duty of care to ensure that the autobiographical process does not become overly personal, intrusive or inappropriately challenging.

The use of inquiry and action research in teacher education and training has become an increasingly utilised pedagogical approach. The tools and skills that are inherent in this approach are thought to provide career-long benefits and would be utilised particularly in

programmes that focus on building adaptive expertise. Action research can help novice teachers in overcoming some of the issues surrounding the complexity of practice and the limitations of their previous experiences. Indeed, this process of researching one's own teaching and students' learning is thought to raise confidence and change classroom practice (Darling-Hammond et al, 2005) and can be further strengthened by combining it with pedagogical approaches such as autobiography or portfolio work.

The range of approaches and tools now regularly utilised by teacher education programmes shows that the direction of teacher education pedagogy has moved away from what might be described as a 'traditional' approach based on learning *for* practice, in which clinical experience is used to model and master a range of teaching techniques, to an approach which focusses on learning *in* and *from* practice. In general this has seen teacher education programmes move away from 'theory-into-practice' or 'application' pedagogies in which practice was seen as the culmination point where 'trade skills' were gained, to a more situated and constructivist pedagogy which use a range of pedagogical tools and practice-based programmes to construct a more coherent link between the student, the theory, and the classroom. As the discussion has highlighted, all of the pedagogical approaches identified have strengths and weaknesses, particularly when used in isolation or without an understanding of how they might be most effectively employed. However, used in combination and within a well-designed teacher education there is evidence that these pedagogies can be highly effective.

## **1.2 Research problem, aim and approach**

### **1.2.1 Research problem**

Given this developing trend that sees those undergoing initial teacher education (referred to in this study as beginning teachers) spending much of their time observing or taking part in authentic classroom practice, this research aims to explore how this might influence the development of their constructs about teaching and learning, and the images they have of their identities as teachers. Whilst traditionally it might have been left to the HEIs to lead on the development of beginning teachers' perspectives on issues of pedagogy and teacher identity, it would now appear that the workplace (referred to in this study as the Community of Practice (Lave & Wenger, 1991)), whilst still providing a setting for teaching practice, will also have a greater role in the intellectual and conceptual development of beginning teachers.

According to Calderhead & Robson (1991), 'school experience' may be so powerful as a socialising activity that it 'washes out' the effects of professional education and training (p.2).

On the face value then, it might appear that 'Community of Practice'-based teacher education would more adequately prepare beginning teachers for the challenges of real classrooms. By immediately situating professional learning in the reality of the workplace it might be argued that professional education is not 'washed out' by practice but rather that professional education *is* practice. This would most certainly be the view of situated learning theorists such as Wenger (1998) who views learning and practice as inseparable elements and comments that '...practice is both the road and the destination' (p.95).

However, it might equally be suggested that this approach could lead to teacher education which becomes insular and parochial. As a result, beginning teachers might lack exposure to wider perspectives on issues of pedagogy and teacher identity, and simply recreate and mirror the practice they observe in their workplace or 'community' context without sufficient critical analysis.

In order to explore these concerns in greater depth and to direct the initial research activity, the following questions were developed to provide some insight into these issues. The main research question asks:

- How, and to what extent, do Communities of Practice influence the development of constructs in beginning teachers?

To provide more specific direction and to shape the data collection methods used the following research 'sub-questions' were also posed:

- 1 - What do beginning teachers believe influences the development of their constructs?
- 2 - How does the construing of beginning teachers change over a 12 - 18 month period of initial professional practice?
- 3 - To what extent do the construction systems of beginning teachers tend towards the construction system of the Community of Practice following a 12 - 18 month period of initial professional practice?
- 4 - How do beginning teachers view their identities, positions and trajectories within their Communities of Practice, and how does this view change over a 12 - 18 month period of initial professional practice?

## **1.2.2 Aim and approach**

This research is underpinned by a constructivist and interpretive epistemology. The aspiration of this research endeavour is therefore to explore and understand a practice-based teacher education process through the eyes of the beginning teachers undertaking it. As the subsequent reflexivity and methodology chapters will explain in greater depth, it is consequently important that the voices and perspectives of the beginning teachers are retained and serve as the central pillar of this research in the form of individual case studies. Whilst the later chapters will analyse, discuss and draw conclusions from these case studies, it remains important that the reader can readily identify where the experiences of the beginning teacher ends and the interpretation of this experience by the researcher begins. This objective has thus influenced, not just the data gathering and analysis methods, but also how the research data has been structured and presented in this study.

This research has utilised Kelly's (1955) Personal Construct Psychology (PCP) as the analytical framework through which the experiences of the beginning teachers are explored. As this study will demonstrate, there has been a range of studies exploring many aspects teacher education. However, few have attempted to understand the experiences of beginning teachers by exploring how they construe teaching and learning, their identities, and their trajectories as teachers. Utilising PCP as the analytical framework not only provides the opportunity to explore and interpret the experiences of beginning teachers from a unique perspective, but also offers a number of concepts which, this research will argue, allows an enhanced understanding of the participants' experience.

This research also relies on the situated learning theory of Lave & Wenger (1991). As the later chapters will highlight, Lave & Wenger (1991) and Wenger (1998, 2000) have become best known for writing about Communities of Practice, however, whilst Communities of Practice are clearly a feature of this research, the lesser known, but equally important, concept of Legitimate Peripheral Participation makes a contribution to the framework in which this research is located.

## **1.3 Context**

This research was situated within a unique context. Until April 2012 I was a Major in the Educational and Training Services (ETS) branch, part of the British Army's Adjutant General's Corps (AGC). This all-officer branch provides teaching staff to deliver a range of Army educational and training courses, such as language training or the modules of the Command, Leadership and Management (CLM) programme, as well as providing more senior staff to training and educational consultancy, leadership and policy roles. As the



reflexivity chapter will highlight, I felt that my experience of teacher education and early professional practice within the ETS was a deeply unsatisfactory one and I was keen to better understand this important phase of professional transition.

The beginning teachers that participated in the study were therefore selected from junior members of the ETS branch. Researching this context had two advantages; firstly, the nature of the professional education programme on which the participants were enrolled was one which is highly practice-based and therefore presented the opportunity to understand how practice-based teacher education programmes influence the construing of the participants. The second advantage was that the research provided opportunities to better understand the environment that I was, until recently, located. As an employer, manager and mentor of the type of beginning teachers that participated in the study, I was provided with the unique prospect of better understanding their workplace transition and therefore being in a position to offer more effective support and guidance.

As an all graduate branch, the beginning teachers that participated in the study were enrolled on a PGCE Post Compulsory Education and Training (PCET) course administered through a HEI. This PGCE course was designed as a bespoke programme developed specifically to meet the needs of the Army and comprised of a notional two year course structured as follows:

Year 1: The PGCE course commences with a 9-week residential course, known as the Branch Training (BT) course. The BT course covers much of the year 1 content including topics such as: supporting learners' needs; planning and design; teaching and learning; monitoring and assessment; and professional practice, development and reflection. Following this residential element, the students undergo a 7-8 month period of professional practice including the completion of a number of written assignments, a minimum of 75 hours of teaching, and five formal teaching observations.

Year 2: The second year of the PGCE includes two further weeks of residential work. The first, known as 'Phase Alpha', initiates the second year. Following the 'Alpha' residential course the students complete another 6-8 months of professional practice which would include the completion of a number of higher, masters-level written assignments, a further 75 hours of teaching (to ensure a minimum of 150 hours over the PGCE course), and a further five formal teaching observations. At the end of this period, students attend the final residential (Phase Bravo), and complete their final written work within 2 months of their attendance. Depending on the planned timings for the cohort and the individual's commitments, the PGCE is normally completed with 18-20 months of the commencing the BT course.

## **1.4 Structure**

### **1.4.1 Chapters**

This research study is divided into chapters. Following this introduction, Chapter 2 illustrates the importance that this research places on the concept of reflexivity in supporting, not just the overall constructivist and interpretive stance of the research, but also in directly contributing to the selection of the research methods and the overall collaborative approach to the collection and analysis of the data.

Chapter 3 conducts a literature review and aims firstly to introduce the reader to the main ideas and concepts which underpin the research and secondly to provide a wider exploration of the current thinking in the field. The ideas and concepts introduced in the literature review help to situate the subsequent discussion of the research findings.

Chapter 4 sets out the research methodology, data gathering tools and analysis strategy. Importantly for this type of qualitative and interpretive research, this chapter also discusses and sets out the methodological approach to issues such as validity, reliability and generalising from the data.

Chapters 5 to 9 present the individual case studies of the research participants. Whilst the reader will note that the structure of each case study is similar, they have remained as separate and discrete chapters to preserve for the reader at least some of the individual experiences and stories that have accompanied the participants' journey into their professional education programme. As the research aim highlighted, the 'voice' of the participants has been retained and can be readily identified by the reader. This is a principle which underpins the reflexive approach to this research.

In Chapter 10, the underlying themes within the case studies are identified and discussed in detail. The aim of this chapter is to develop some tentative ideas, concepts and theories which can be taken forward and offered as responses to the research questions posed at the beginning of the research. This chapter draws on the main ideas presented in Chapter 3 but also links the findings to other relevant work.

Chapter 11 draws conclusions from the research findings. In the first part of this chapter, responses to the research questions are offered drawing on the research literature and the tentative theories developed during the discussion of the findings in the previous chapter. In the second part of this chapter, the implications of the research findings for practice are discussed and a pedagogical model for teacher education is offered. Finally, the research limitations, lessons learned, and areas for further development are discussed.

Finally, a list of references and glossaries of technical and general terms are presented.

### **1.4.2 Grammatical approach**

The reader will note that this study is written in both the first and third person grammatical position - this is by design. The central motivation for this approach is to ensure that the reader can differentiate between the 'voices' they will find in this research - particularly within the case studies where the mixed voices of the participants and the researcher can become easily confused. This approach also aims to reduce the tendency within research, highlighted in Chapter 2, to hide behind rhetorical devices and therefore present discussion points and interpretations as matters of fact, rather than as tentative offerings and explanations. Finally, there are areas of this study, particularly the reflexivity chapter, where to write purely in the third person would be nonsensical given the personal and reflective nature of the text. Therefore, the reader will find different grammatical positions depending on the aim and content of the individual chapter.

The next chapter examines issues of reflexivity and the impact of the researcher's biography on the conduct and analysis of the research. Following an exploration of the concept of reflexivity, the chapter will show how my experience in professional practice developed perspectives which informed, illuminated and enhanced this research enterprise.

## 2 REFLEXIVITY

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### ‘Technology of the Self’: A Reflexive Analysis of Personal Disposition

#### 2.1 Introduction

This chapter has two aims; the first is to develop and articulate a personal understanding of the concept of reflexivity. The second is to apply that understanding within the context of my professional experience in order to develop both personal and theoretical perspectives and demonstrate how these perspectives have informed, illuminated and enhanced my research undertaking.

The first part of this chapter therefore presents a small-scale survey of a range of contemporary perspectives on reflexivity. This section will highlight that although reflexivity is, in a number of ways, a highly subjective and contested term, it remains focused on the notion that the researcher cannot be easily or simply separated from the researched and, therefore, the researcher influences every aspect of the research undertaking.

The second part of the chapter is a reflexive analysis which concentrates on what I have come to refer to as ‘the autobiography of the question’; that is, an examination of the source of my research interests and a critical analysis of how the experiences that are embedded within my research questions may serve to shape the nature of this research endeavour. This analysis focuses on the concept of professional identity and hopes to illuminate the struggle I experienced to develop a teaching identity during the early stages of my professional practice. I first conduct a short literature review to provide to the conceptual foundation which underpins the subsequent analysis of my experiences as a beginning teacher. I hope to show that my understanding of the experience of struggling with my professional identity has both shaped and influenced this research, and has itself been shaped by the process of researching. Finally, I utilise a conceptual framework developed by Wilkinson (1988) to illustrate the extent to which this reflexive analysis advanced my perspectives on research.

#### 2.2 Whose Voice? A Reflective Survey

The process of engaging in reflexivity is complex, not least because its subjective and ambiguous nature is contested (Finlay, 2003a). Indeed, according to Savin-Baden (2004, p.366) one of the problems with reflexivity is that ‘how you see it depends on where you are coming from’. Finlay (2002) suggests that:

'...reflexivity can often be confused with reflection – and, indeed, in much of the literature, these terms are used interchangeably. The concepts are perhaps best viewed on a continuum ...at one end of the scale, reflection can be understood as 'thinking about' ...the thinking is about something else and takes place after the event. At the other end of the scale, reflexivity taps into a more immediate, continuing, dynamic and subjective self-awareness. Although actual (pre-reflective) lived experience can never be fully grasped in its immediate manifestation, with reflexive analysis, the researcher is aware of experiencing a world and moves back and forth in a kind of dialectic between experience and awareness' (p.532).

Reflexivity is often only considered in terms of improving the so-called 'validity' of the research by reducing bias in qualitative research. At its most basic level, Koch & Harrington (1998) and Finlay (2003b) see reflexivity as the ability to recognise and consider the effect of researcher bias and to generate awareness of how the presence of the researcher affects the research process and participants in order to 'bracket' or suspend the bias of the researcher. This is a perspective rooted in a naturalistic approach to science which seeks to eliminate or control external forces. In a sense, this perspective sees researchers trying to remove themselves from the research process, perhaps using rhetorical devices, such as passive voice, to convey authenticity and authority (Gough, 2003). According to Beck (1993) and Koch & Harrington (1998), it is a view that sees the qualitative researcher attending to the issue of research integrity and so-called 'scientific rigour' by applying the traditional conceptions of objectivity and generalisability, or more contemporary and qualitative based criteria such as credibility, fittingness and auditability, as evaluation criteria.

By contrast, Finlay (2002) adopts something of a post-modernist view, by seeking to 'out' the researcher and seeing the researcher as '...a central figure who influences the collection, selection and interpretation of data' (p.531). Indeed some reflexive practitioners ask why you would conduct research for which you must deny responsibility for what you have found (Etherington, 2002). Lowering this positivist barrier between the researcher and the researched enables both sides to be identified and understood for what they are and what influences them. The researcher can be then understood as a central figure that actively constructs the collection, selection and interpretation of the data, in a joint enterprise that sees the researcher, the participant and their relationship as key elements of the research process (Finlay, 2003a).

Finlay (2002) also suggests that the researcher must acknowledge that qualitative research has the potential to transform the phenomenon rather than simply reflecting it. The critical weakness of the naturalistic perspective from this position is that it ignores the emancipatory

potential of reflexivity and of qualitative research conducted from a critical perspective. Rather than trying to eliminate or control these social forces, the reflexive researcher tries to identify the role and impact of these on the research process. McCabe & Holmes (2009) argue that:

‘...reflexivity is the practice of being cognisant of one’s views and social position and the effect that these may have on the research process and on those being researched. This gives the researchers the opportunity to reflect on their individual histories and theoretical stances, and on the way in which these influence the research’ (p.1522).

Critical research involves the co-creation of the research agenda between the researcher and the research participants and is rooted in Foucaultian ideas of power. Foucaultian thinking suggests that power relies on the production of scientific ‘truths’ or knowledge which are reproduced in discourses to justify and substantiate the conduct and governance of individuals. These so-called ‘truths’ are internalised by individuals and groups and acted out accordingly. Emancipation, from a Foucaultian perspective, involves illuminating these dominating truths and negotiating new ways of acting. The individual or group must become aware of the set of ‘truths’ they are operating by and ‘technologies of the self’ (the ways in which people govern their own behaviour to produce new ways of being) can be used to negotiate new ways of acting (McCabe & Holmes, 2009). The reflexive act of turning one’s thoughts inwards to focus on one’s own actions and conduct is the cornerstone of technologies of the self. McCabe & Holmes (2009) suggest that:

‘Employing expanded reflexivity as a technology of the self would allow the researcher to empower and emancipate participants through the research process by: allowing the voice of the participants to be heard in their own words; being open to questions and information-gathering from participants; adjusting the research agenda to reflect the ideas and concerns that are important to participants; remaining sensitive to the relative researcher-participant position; recognising the socio-political agendas that may be embedded in the research environment as well as the larger social context; and encouraging participants to self-explore and thereby gain new knowledge of themselves’ (p.1524).

McCabe & Holmes (2009) therefore maintain that ‘...reflexivity is more than a control mechanism; it is an acknowledgement of the nature and function of power’ (p.1524). This general approach to reflexivity is supported by Arvay (2002, 2003) whose collaborative narrative methodology, reflecting a social constructivist paradigm, contends that meanings are contested and depend on who is speaking to whom and the power relations perceived within these relations. From a narrative perspective, Arvay suggests that reflexivity examines the power relations’ impact on both the research relationship and the construction

of the research narratives. In particular, this methodology sees reflexivity in terms of what Finlay (2003a) describes as 'ironic deconstruction' (p.14). Smith (2003) suggests that here, the researcher's imperative is to challenge the position of the researcher as the 'voice of authority' enabling multiple voices to be heard (p.184). The researcher abandons the usual interpretive privilege by including the participant in the research and analysis process, not just asking if they concur with the researcher's analysis. Finlay (2003b) therefore contends that:

'...new understandings emerge from a complex dialectic between knower and known; between the researcher's past pre-understandings and the present research process, between self-interpreted co-constructions of both participant and researcher' (p.108).

Etherington (2004) highlights that narrative research encourages the inclusion of the researcher's 'story', thus making transparent the values and beliefs that, almost certainly, influence the research process and its outcomes. This, Etherington (2004) states, is what is known as 'researcher reflexivity, critical reflexivity or critical subjectivity' (p.27).

Etherington (2004) goes on to define links between reflexivity and identity. Firstly, Etherington sees reflexivity operating at a minimum of two levels; in the first level we reflect on ourselves as active agents in the research process. In the second we need to understand what we think, feel and imagine is happening within us, and the inner narrative that we establish, as we listen to the participant's stories. To act reflexively we must understand how our life experiences and contexts are impacting on our listening and responding. Most importantly, Etherington (2004) highlights that reflexivity is not self-awareness, which implies some form of constant state; it is a reciprocal and dynamic action between experience and self. Therefore reflexivity implies a specific view of self; away from a conception which sees 'self' as a fixed entity, waiting to be discovered, towards a view of constantly changing and animated 'selves' within a constantly changing context. Reflexivity, according to Smith (2003), offers us a model of self that is not determinatively fixed either 'by essence or by discourse' (p.178). Etherington goes on to explain why reflexivity is more than just checking or exposing bias in an effort to ensure the rigour of a research endeavour. By using reflexivity in research, Etherington (2004) contends that:

'...we close the illusory gap between researcher and researched, between knower and what is known. By viewing our relationship with participants as one of consultancy and collaboration we encourage a sense of power, involvement and agency. When we enable other people (and ourselves) to give voice to our experience, those voices create a sense of power and authority' (p.32).

The challenge therefore for researchers using introspective techniques is to identify and utilise their presence in the research not as a narcissistic or self-indulgent end in itself, or as what Harper (2003) describes as 'agonising confessional work' (p.78), but as a springboard to genuine insight and alternative interpretation through co-construction and mutual collaboration.

Finally, Finlay (2003a, p.16) suggests that, taken as a whole, reflexivity can be seen as a valuable tool that has the ability to:

- 'Examine the impact of position, perspective, power and presence of the researcher'.
- 'Promote insight through the examination of interpersonal dynamics'.
- 'Open up unconscious motivations and implicit biases in the researcher's approach'.
- 'Empower others by giving them a voice'.
- 'Evaluate the research process, methods and outcomes'.
- 'Enable public scrutiny of the integrity of the research process'.

Therefore it might be more appropriate to talk, as Gough (2003) does, of 'reflexivities' to enable us to move away from the conception of reflexivity as a concept that can be easily captured and agreed upon (p.22). Perhaps the nearest we might get to categorisation of reflexivity is to frame it, like Wilkinson (1988), as three, interrelated levels: 'personal', 'functional', and 'disciplinary' (pp.494-498). At the lowest level it may be appropriate to view reflexivity as the intention of researcher to make themselves visible within the design, the data gathering, and the analytical process that make up their research endeavours, and to understand their impact on the research process. At the functional level, the reflexive researcher tries to understand the different roles, identities and associated power structures that occur within the research process. Finally, Wilkinson argues that a disciplinary view of reflexivity sees the researcher take a critical stance with reference to the position of their research within broader disciplinary debates regarding the nature of theory and method. Wilkinson (1998) argues that, as a general rule, reflexivity implies rendering explicit hidden agendas and half-formed intentions and that this should be an iterative process.



## 2.3 Identity and Sociology: Challenging the Atomised Individual

The second part of this chapter is a reflexive analysis of the root of my research interests and questions. I have come to understand this analytical process as examining the 'autobiography of the question', that is, asking key questions such as 'why this research focus?', 'why these questions?', 'why me?', and 'why now?' This summarised by Giddens (1992) who comments that:

'...the self today is for everyone a reflexive project – a more or less continuous interrogation of past, present and future' (p.30).

My research questions have, at their source, an interest in personal change. In particular, the change that one might experience during a period of professional career transition. Over the past four years of thinking and writing about my research, my understanding and conceptualisation of the themes surrounding transition has evolved. My initial understanding was that my research was about mentoring. As I will go on to describe, I felt a sense of frustration about the lack of mentoring I received as a beginning teacher and felt that my research focus, and answers that I sought, were fundamentally concerned with the impact of workplace mentoring. My thinking slowly progressed to view my research as concerned with transition, in particular, transition into a professional community. The focus became the impact of the community on the development of personal constructs. More recently, I have come to understand that the principal concern of my research project is also the development of professional identity and that issues such mentoring and transition, whilst important, can be regarded as components of the process of identity construction. The link between personal constructs and construing, which form the conceptual spine of this research, and the concept of identity will be explored further in Chapter 3.

This protracted reflexive analysis has been important as it has shaped not only my understanding of a difficult and frustrating personal experience that, ultimately, motivated me to conduct this research, but has also shaped the direction of the research itself. This section therefore sets the conceptual foundation for the subsequent discussion on my experiences as a beginning teacher by conducting a short review of literature concerned with identity. Secondly, there is a section in which the struggle I experienced as a beginning teacher as I made the transition into a new professional community is described. In particular, I highlight what Ibarra (1999) describes as the 'emotive dissonance' experienced when one has a conflicted or confused identity (p.799). Finally, I endeavour to apply my experiences within a conceptual framework to show how this reflexive engagement has served to shape my understanding, and subsequent treatment, of this research.

### **2.3.1 Identity and Transition**

In the development of the conceptual framework which underpins my research, I utilise Kelly's (1955) personal construct theory and Lave & Wenger's (1991) work on legitimate peripheral participation in communities of practice. As Chapter 3 outlines in greater detail, I hypothesise that entering a community of practice results in an increasingly accurate understanding of the construction systems of that community. As this understanding develops, so the individual is able to gain access to the dominant discourses of the community and hence to adopt, or be offered, a meaningful and relevant role that results in the opportunity to access the practice of that community, a process I have specifically likened to Lave & Wenger's (1991) legitimate peripheral participation. Like Lave & Wenger, I utilise the analogy of learning through apprenticeship to illustrate this process. I further suggest that growing access to the practice of the community results in the development of new identities and trajectories. I therefore highlight the importance of access to practice in creating opportunities for learning and for the development of these new identities and trajectories. Learning in apprenticeship is not just about internalising overt knowledge and skills however; it involves moving towards full participation in the socio-cultural practices of the community. It involves absorbing the general idea of what being part of the community is all about; how members work, talk and conduct themselves. Bathmaker & Avis (2005) contend that the process of identity formation is not only accomplished through legitimate peripheral participation in communities of practice, but suggest that the work of Lave & Wenger (1991) is a useful and appropriate lens for the exploration of professional identity.

The importance of both access to practice and, additionally, access to role models is discussed at length by both Ronfeldt & Grossman (2008) and Ibarra (1999). On the assumption of new role, they suggest, it is not sufficient to simply acquire new skills; the social norms that govern individual conduct must also be appropriated. Failure to display these norms may not only reduce the individual's effectiveness in that role but may also cause the individual to lose the right to enact that role; they may lose the right of peripheral participation. Therefore the social and psychological processes, through which individuals construct, adjust and transform their professional image and identities become a vital part of the professional transition process. Ronfeldt & Grossman (2008) stress that, whilst there is an expectation that professional education has a key role in preparing novices for transition, research suggests that education has little influence on the transition process, indeed the 'induction' approach which focuses on professional transition can be contrasted with the 'reaction' approach which sees newcomers not acquiring a professional role, but reacting to educational experiences (Robson, 1998b). Ronfeldt & Grossman (2008) and Ibarra (1999) contend that, in many cases, and across professions, individuals in professional transition

must convey a credible image some considerable time before they have fully internalised their professional identity if they are to operate in any believable sense in the workplace. This is, arguably, particularly true of the teaching profession where newcomers may have to act like teachers before they feel like teachers.

Professional image or persona refers to the impressions that individuals attempt to give others. Personas are enacted to convey the qualities they wish others to ascribe to them. They may conflict with their own self-conceptions or construct systems but are, in most cases, short term solutions utilised so that the individual may access a specific role or to simply 'survive' professionally (Day et al, 2008).

Professional identity, by contrast, is variously understood as:

'...the relatively stable and enduring constellation of attitudes, beliefs, values, motives and experiences in terms of which people define themselves in a professional role'. (Ibarra, 1999, p.764)

'...identity refers to the way a person understands and views himself [sic], and is often viewed by others, at least in certain situations - a perception of self that can be fairly constantly achieved'. (Horn et al, 2008, p.62)

'...professional identity can be defined as the perception of oneself as a professional and is closely related to the skills one has, the work one does, and the work-related significant others or reference group'. (Robson, 1998a, p.586)

Unlike image, professional identity is thought to form over time, through meaningful feedback, and aided by the kind of diverse experiences which allow the individual to gain an understanding of their enduring preferences, their values and their abilities. Day et al (2006), contend that the professional self consists of five interrelated parts; 'self-image, self-esteem, job motivation, task perception, and future perspective' (p.603). Ibarra (1999) highlights that those undergoing a professional transition may utilise what she describes as 'provisional selves' to provide a bridge between their current self-conceptions, and the representations they hold about their future professional identity. 'Provisional selves', or 'biographical projects' as they are described by Day et al (2006, p.611), might be considered as the stepping-stones between the 'possible selves' identified through access to practice and to role models, and the eventual professional identity adopted.

Nicholson (1984) suggests that role transition strategies can be considered as either 'personal development' strategies in which the change is absorbed by the individual altering their frame of reference, values or other identity-related attributes; or 'role development'

when the individual's strategy is to adapt the role requirements to better match their current abilities and identity. As this chapter is fundamentally concerned with the development of professional identity it is only Nicholson's (1984) personal development strategies of 'absorption' and 'exploration' that are of relevance (p.176). An absorption strategy sees the burden of the adjustment being shouldered almost exclusively by the individual and has the predominant characteristic of 'role learning'. An exploration strategy sees the simultaneous change of identity and role parameters and has the characteristic of 'role innovation'. The extent to which an individual is forced to adopt an 'absorption' rather than an 'exploration' strategy is generally determined by the amount of discretion an individual has in their role and is often linked to status. Nicholson (1984) contends that:

'...absorption is most intense at early career stages when occupational inexperience guarantees that the novelty of the role demands will be high and openness to experience and desire for feedback have high functional utility for constructing social identities' (p.187).

Although access to practice and to role models impose demands which suggest specific 'ways of being', Ibarra (1999, p.766) highlights that 'people interpret and act on these subjectively, as a function of their self-conceptions - who they are, and who they would like to be in the future'. However, Lawler (2008) is keen to highlight Foucaultian ideas of reproduction that may exist in the relationship between role and identity, she comments that:

'Through subjectivation people become tied to specific identities: they become subjects. They also become subject-ed to the rules and norms engendered by a set of knowledges about these identities. They take up subject-positions - specific ways of being - available within discourse, understanding themselves according to a set of criteria provided by experts whose authority derives from rationality and "reason"' (p.62).

Utilising images of potential end states, and the adoption of provisional personas, are congruent with the type of observational and experiential learning which is at the heart of Ibarra's understanding of the process of adaptation that is undertaken during a professional transition. Ibarra (1999) compartmentalises this process of adaption into observation, experimentation and evaluation. During the observation phase the individual builds what Ibarra (1999) describes as a 'repertoire of possible selves' (p.774). To build this inventory, the individual must assess what constitutes a credible role performance (role prototyping) and compare this performance with their own (identity matching). In the second phase, Ibarra (1999) states that individuals experiment with their provisional selves utilising 'trial and error' strategies to forge a more effective image' (p.776). Individuals tend to accomplish this experimentation through either wholesale or selective imitation; however, some adopt what Ibarra (1999) describes as 'true-to-self' strategies in which the dominant concern becomes

the degree of congruence between some form of personal imperative and the provisional self-adopted (p.778). During the evaluation phase individuals utilise internal evaluation (self-congruence) where they assess the match between the constructions of their provisional selves and their aspirations of the professional they hope to become. The greater the congruence, the more likely the provisional self is to be internalised. Ibarra (1999) describes the mismatch between what people feel or aspire to, and the images or provisional selves that they are forced to adopt as 'emotive dissonance' (p.779). External evaluation (appropriateness), by contrast, takes the form of validation and feedback which can be delivered directly or indirectly by an individual or a community of practice.

What this conceptualisation demonstrates is that the development of the professional depends not only on the type of situated and experiential learning that is described by Lave & Wenger's (1991) legitimate peripheral participation, but also on a mechanism that allows individuals to produce possible selves, to select them for trial, and to discard the possibilities they have considered. It suggests the need to access not just a range of practice, but a range of practitioners. This position is summarised by Lawler (2008) who suggests that:

'...identity is always something that is done: it is achieved rather than innate. However, identity is not something achieved in isolation; it is part of a social collective endeavour, not an individual odyssey. Further, it is not a matter of individual 'choice': I cannot simply choose to be one person rather than another (although I may resist the positioning of others). The question, then, is not 'who we really are' but how we achieve identity, under what constraints and in what contexts' (p.104).

Participation and 'self' are therefore inextricably linked, and Ronfeldt & Grossman (2008) remind us of the centrality of practice within professional identity. They highlight that implicit within the concept of practice is that the acquisition of skills and knowledge is part of the construction of a person's identity; that 'ways of doing' are not easily separated from 'ways of being' (p.44). As Burn (2007) suggests, this mechanism can be conceived as a form of hypothesis-testing during which individuals construct their own identities and thus come to understand practice 'through the lens of their existing knowledge and beliefs' (p.446). Ibarra's (1999) research points to the fact that this mechanism does not infer a homogenous experience, indeed she highlights that individuals differ in the extent to which they build repertoires of possible selves (variety creation) or utilise their evaluations to make behavioural or repertoire changes (variety retention), with some individuals persisting with ineffectual provisional selves for which they can see no alternative. However, Ibarra (1999) does draw attention to the significance of meaningful professional relationships in the adaptation process. Discussing her research findings Ibarra states that:

'In the context of meaningful professional relationships, advice and suggestions from role-set members helped the junior member adjust and calibrate his or her identity construction strategies; without some degree of identification, juniors were less likely to assimilate information that challenged their self-views or preferred adaptation strategies. Feedback that is clear, vivid and salient at an emotional level, therefore, may play a critical role in helping the individual to narrow the search for an identity that suits the situation and can be incorporated into a more enduring sense of self' (p.785).

This emphasises the extent to which networks of role-model 'sets' shape the quality and quantity of provisional selves that can be observed, created, and evaluated as part of the adaptation process. A broad and diverse network of relationships may promote the development of varied repertoires of possible selves just as narrow network structures may limit the identities available. Here, Day et al (2008) highlight the post-structuralist understanding of identity which sees identity as being formed through 'discursive practices' and the interactions in which individuals engage (p.608). This view, they comment, conceptualises identity not as a stable entity which people possess, 'but rather as constructed within social relations and used by individuals as an interactional resource'. Applied to teaching professionals, Day et al (2008) suggest that:

'Identity formation is an ongoing process that involves the interpretation and reinterpretation of our experiences as we live through them - suggesting that focusing on transactive relationships rather than linear models might provide a deeper understanding of the multiple "I"s of teacher identity ...teacher identity is continually being informed, formed and reformed as individuals develop over time and through interaction with others' (p.606).

Identity and self therefore do not cause social situations, they occur as a result of social situations. Professional identity and indeed social reality are constructed through performance. As Lawler (2008) suggests, 'there is no self that is left untouched by the outside world' (p.108).

### **2.3.2 Personal Experiences in Transition**

During my initial appointment as a beginning teacher, legitimate access to practice was not problematic, indeed, due to staffing gaps, I was the only teacher in my department and therefore I could access as much practice as I wanted. Clearly, because of these staffing gaps, my introduction to teaching did not start with peripheral access, and move to full access to practice over a period of time, as is described in Lave & Wenger's (1991) conceptualisation of learning through apprenticeship, however, I did not feel disadvantaged by this. Rather I saw this as an opportunity to develop my teaching skills in the classroom.

By contrast, I had extremely limited access to practitioners. Initially, I was not concerned by this because my understanding of teaching failed to extend beyond viewing it as a skills and knowledge-based profession. However, as my understanding of the nature of teaching and the reality of being a teaching professional developed, I became aware of limiting nature of developing in professional isolation. There appeared to me to be a stark contrast between the social act of teaching in the classroom and the professional isolation I was experiencing as a beginning teacher. Even at this early stage in my professional development I was experiencing conflict between the conception of a 'good teacher' which was presented during my professional education programme and the reality I was experiencing in the classroom. The literature would suggest that without access to a range of practitioners, I did not possess the resources to adequately deal with this conflict. This identity conflict created the 'emotive dissonance' described by Ibarra (1999, p.779) and left me feeling confused; it reduced my confidence, and made me question whether teaching was the right career choice. I now understand this conflict was not necessarily related to my technical ability to teach, but to my inability to experiment with and form an identity as a teacher. As the review of literature has shown, a lack of access to a range of practitioners, or perhaps specifically, the lack of a formal or informal mentor or role model, resulted in my inability to develop a range of possible selves from which to select and adopt provisional selves. Therefore, whilst I was able 'teach' from the technical perspective of planning, delivering and assessing learning, I struggled to 'become' a teacher. The lack of a community of practice meant that my only conception of the 'teaching professional' was that constructed during my teacher education and this model proved too generalised and inaccurate to be useful in practice. My professional education programme therefore appears to have viewed teacher education as complete once the student was technically competent, proficient in the classroom and had demonstrated some knowledge of learning theory. The socialisation of the beginning teacher, the 'becoming' aspect of professional transition, appears have been relegated to a factor which needed no specific strategy or intervention during the socialisation period of the beginning teacher.

Le Cornu & Ewing (2008) contrast three orientations of professional experience as part of the teacher education process: traditional, reflective and learning communities. The traditional stance has its roots in a behaviourist approach to teacher education which sees the mastery of skills, methods and techniques as part of a wider competency-based approach. The reflective approach sees teaching more as a professional thinking activity that goes beyond technical skills. As a result, learning to teach has been reconceptualised to acknowledge the importance of 'personally owned professional knowledge' (p.1802). Professional experiences are seen as opportunities for reflection on and within practice. The

third approach moves beyond reflection to highlight the importance of learning communities in teacher training. This thinking is broadly reflective of Atkinson's (2004) conceptualisation of the three stances required by Initial Teacher Training (ITT); 'the reflective practitioner, the reflexive practitioner, and the critical practitioner' (p.381).

With explicit links to the work of Lave & Wenger (1991), Le Cornu & Ewing (2008) stress the value of peer discourse and opportunities for collaborative reflection. They state that learning is a process that takes place in a participation framework, not in the individual mind. Le Cornu and Ewing (2008) comment that:

'What seems clear is that where institutions value learning communities, student teachers have the time and space structured into their professional experiences to engage in learning relationships with a range of colleagues, including their peers, mentors and other school-based colleagues and university liaison. Such relationships are characterised by trust and reciprocity with a strong appreciation of the critical nature of professional conversations for ongoing professional learning ...the notion of the learning community contrasts the 'sink or swim' and 'do it yourself' view of student teaching in the typical practicum'.(p.1803).

Le Cornu & Ewing (2008) go on to highlight that their research demonstrates that teachers sustain their long-term professional growth through professional learning communities so it is crucial that student teachers become comfortable participating in such communities. They state that feelings of isolation are reduced by the facilitation of collaborative cultures and generally, teachers feel more positive about their profession. More importantly perhaps, Le Cornu & Ewing (2008) suggest that learning communities are seen as an effective way to 'support teachers and bring about changes that are deemed necessary for effective teaching and learning in the 21st century' (p.1805). The concern therefore, is not simply with teacher identities in themselves, but with how teacher identity may contribute fundamentally to the nature of teaching and learning (Bathmaker & Avis, 2005).

A surface analysis of this literature would suggest then that a trend towards community of practice-based professional education programmes, such as those described in Chapter 1, would be a positive development. However, without commenting on any specific programme or initiative, one should guard against immediately associating the kind of professional learning communities described by Le Cornu & Ewing (2008) with teacher education programmes that are based in the workplace. It is my contention that professional learning communities are not defined by context or setting. They could be present in a HEI and absent in the workplace. Equally, as my personal narrative highlights, access to workplace practice does necessarily mean access to 'possible selves' (Ibarra, 1999, p.774).



## **2.4 Personal Experience and ‘Reflexivities’**

It was suggested in beginning of the chapter that the challenge of employing reflexivity is in trying to develop some constructive insight which has a genuine impact on the researcher’s understanding of the research endeavour. Failure to achieve this can position reflexivity within an atmosphere of narcissistic self-indulgence and, what Harper (2003) describes as ‘agonising confessional work’ which, whilst cathartic, fails to allow the researcher to place the research in any form of context (p.78). In order therefore to try and understand how my experience as beginning teacher has shaped my subsequent research agenda I will utilise Wilkinson’s (1988, pp.494-498) conceptual framework to analyse the extent to which my experiences continue to influence the personal, functional and disciplinary aspects of my research in order to apply my ‘reflexivities’ in a practical context.

### **2.4.1 Personal Reflexivity**

I have to acknowledge that the intensity of my experiences as a beginning teacher have had the potential not just to frame my research agenda but, consciously or unconsciously, to actively impact on the design, data gathering, and data analysis. This reflexive project has forced me to confront the uncomfortable notion that, as the researcher, I have the ability to direct the research to conform to my preconceptions and bias, in particular, to view and interpret the participants’ experiences only in light of my own. Every element of the research, from selection of participants, to analysis of data, has been vulnerable to my shaping activities and, if I am to produce research which trustworthy and credible, I must have ensured that I utilised strategies that reduced my ability to drive the research toward a preconceived outcome. These strategies can be, in a sense, designed into the research and, as we have already discussed, criteria such as credibility, fittingness and auditability advanced by Beck (1993) and Koch & Harrington (1998) have helped to assure the integrity of qualitative research. However, McCabe & Holmes’ (2009) discussion on the emancipatory potential of reflexivity has suggested that only by employing a strategy which sees the research agenda, data collection and data analysis as a collaboration between researcher and participant, can the impact of my personal experiences be moderated. Therefore this reflexive analysis prompted me to utilise Arvay’s (2002, 2003) collaborative narrative methodology. This methodology encourages both the researcher’s and the participant’s stories to become an open and integral part of the research as well as shifting the power relations with the researcher-researched relationship.

### **2.4.2 Functional Reflexivity**

At the functional level, this reflexive analysis has highlighted the need to assess and understand the roles and identities of those involved with the research endeavour. Specifically, this involved taking a reflexive view of the associated power structures that are generated by the research process; this is an essential part of conducting research from a critical perspective. This reflexive analysis led me to become increasingly uncomfortable with my privileged position of researcher, particularly when placed in the context of my personal reflexivity discussed earlier as it suggests that, as the researcher, I have the power to reproduce what I believe to be the dominant 'truths' and 'discourses' through my ability to set the research agenda around identity. McCabe & Holmes (2009) implied that the researcher has, arguably, a moral duty to employ 'technologies of the self' to ensure that the power structures, scientific 'truths' and dominant discourses of the research agenda are exposed and examined. Further to this, that the researcher empowers the researched by facilitating the genuine voice of the participants, by amending the research agenda to include the interests and ideas of the participants, and to encourage to participants to engage in their own reflexive project. Like my personal reflexivity, many of my reflexive concerns at a functional level were addressed through the use of Arvay's (2002, 2003) collaborative narrative methodology. As Finlay (2003a) suggests, the use of 'ironic deconstruction' methodologies such as this helps to challenge the position of the researcher as the 'voice of authority' and allows multiple voices and interpretations to be applied within the research (p.14). Importantly for the integrity of the research project, this encourages new understandings to be constructed by the dialectic that was created by a research relationship based on equality.

### **2.4.3 Disciplinary Reflexivity**

At the disciplinary level, my reflexive analysis is important to place my research within the broader disciplinary and socio-political agendas as well as to understand how my research is positioned within the larger social context. Whilst this has been the most intellectually demanding category of reflexive analysis, it is vital that I understand the extent to which the paradigms that underpin my research are accompanied by assumptions and narratives. In this case, my research is located within a constructivist paradigm. This paradigm not only shapes the research agenda but, just as any paradigm might, serves to limit the theorists and literature that are utilised to underpin the research to those which conform to a constructivist view. Like many constructivists, I struggle to reconcile the realism-idealism dichotomy represented by the epistemological and hermeneutic perspectives. I therefore sit somewhere between these two extremes conforming to what Raskin (2002) describes as

'limited realism' (p.5). Whilst it is difficult not to approach research from a particular perspective, it is important that the researcher remains cognisant of the implications and limitations that this places on the research. The post-modern perspectives of constructivist psychology draws me to the work of theorists such as Vygotsky (1978), Bourdieu (1990), Lave & Wenger (1991) and Kelly (1955) who share ontological and epistemological positions based on the construction of reality and knowledge and, to a greater or lesser extent, the use of language and discourse in the social construction of this reality. As this chapter has demonstrated, this leads to the view that identity, for instance, is something that is constructed rather than something that is an intrinsic part of the individual. As Lawler (2008) states:

'...identity is always something that is done: it is achieved rather than innate ...identity is not something that is achieved in isolation; it is part of a social collective endeavour' (p.104).

Additionally, this stance led me to me emphasise a view of teacher education conforming to the 'learning communities' model rather than to Le Cornu & Ewing's (2008) contrasting models of professional experience. In the context of this research, this may point to a preference for practice-based professional education; however, as previously discussed, this might be a slightly superficial analysis of a more complex relationship between ontology and practice. What is clear however is that I draw upon a range of theorists and perspectives within the constructivist paradigm; from the personal constructivism advanced by Kelly (1955) to the social constructivist methodologies utilised by Arvay (2002, 2003). Whilst I can locate my position within the constructivist spectrum, I have no desire to conform to a particular constructivist view or to limit my conceptual framework to one which sits comfortably within current constructivist thinking.

This highlights therefore that the researcher must maintain a reflexive approach to understanding the broader context of the research paradigm and the extent to which this positions the research within the body of work on the subject. More importantly perhaps, my reflexive analysis at the disciplinary level has led me to understand the extent to which the research paradigm has transformed the way I view my experiences as a beginning teacher.

## **2.5 Summary**

One might summarise, therefore, by suggesting that engaging in reflexivity at the personal and functional levels has allowed me to develop my understanding of how my experiences have impacted on and shaped my research. By contrast, engaging in reflexivity at the disciplinary level has allowed me to comprehend how my research has impacted on and shaped my understanding of these experiences. It is this dialectic between experience and

research that separates a reflexive analysis from a reflective one. In the next chapter the main ideas and concepts which underpin the research, such as the work of Kelly (1955) and Lave & Wenger (1991), briefly highlighted in this chapter, are discussed in greater detail.

## 3 LITERATURE REVIEW

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### 3.1 Introduction

#### An Altering Eye: Situated Learning and Personal Construct Psychology

One of the ways that we think about learning is based on an assumption that it is a planned activity that individuals do. Using this approach, it is easy to think of learning as a distinct and detached event with an identifiable beginning and a predetermined end; most significantly we are predisposed to view learning as the product of teaching. Adopting a contrasting view of this position would see learning as an unpredictable and fundamentally social process. Learning becomes a continuous activity that is the product of discourse and social interaction and this is, therefore, a view that sees learning as being conceptually relocated from a position inside the person, to a position outside the person. In this chapter I not only adopt this contradictory position but further suggest that learning is a situated activity, intimately connected to the development and revision of personal constructs through which individuals perceive, predict, and act in the world. Personal constructs allow individuals to adopt a range of discourses through which they can accept or resist the identities that are offered and assigned to them by their communities of practice.

The chapter begins by outlining my ontological and epistemological position through an exploration of the social constructionist perspective. This leads to a detailed discussion of Kelly's (1955) Personal Construct Theory, and the situated view of learning offered by Lave & Wenger (1991). My aim in this discussion is to bring some measure of conceptual unity to the work of my key theorists, Kelly and Lave & Wenger. I hope, by using Kelly's Personal Construct Theory as a framework, to present alternative observations on, and understandings of, Lave & Wenger's legitimate peripheral participation in communities of practice and hence provide the conceptual foundations of this research. In a sense, I hope to expand what Kelly might describe as the range of convenience of Personal Construct Theory to include communities of practice and utilise construct psychology to explain Lave & Wenger's situated learning through legitimate peripheral participation. This chapter does not aim, or indeed make claim, to fully represent either the social constructionist perspective, or the work of Lave & Wenger and Kelly and will, through necessity, fail to adequately address many of the subtleties and nuances alluded to by the authors in their texts. I also draw heavily throughout the chapter on several other texts and ideas to support my attempt to unify the work of my key theorists; in particular I rely on the work of Vygotsky (1978) and Bourdieu (1990) to provide the theoretical foundation, and Bannister & Fransella (1986) and Diamond (1991) to add colour and depth where I cannot. I conclude this chapter by drawing

some conclusions as to what the implications of unifying the work of my key theorists might mean for my view of learning and practice and for this research.

### **3.2 Doing Knowledge - The Social Constructionist Perspective**

'The observer, when he seems himself to be observing a stone, is really, if physics is to be believed, observing the effects of the stone upon himself. Thus science seems to be at war with itself: when it most means to be objective, it finds itself plunged into subjectivity against its will. Naive realism leads to physics, and physics, if true, shows that naive realism is false and therefore the behaviourist, when he thinks he is recording observations about the outer world, is really recording observations about what is happening to him' (Russell, 1995, p.15).

Russell (1995) was able to capture in just a few short sentences, the complex ontological struggle between the empirical and positivist position which suggests that the nature of the world can be revealed through observation and experiment, and the relativism of the social constructionist stance which challenges the view that the 'truth' is so easily revealed. In her detailed study of the social constructionist perspective, Burr (2003) contends that knowledge is both generated and sustained by social processes and as such, knowledge is constructed by and between people. The ontological position of the social constructionist is therefore that what we regard as the truth varies both historically and culturally, it is not the product of careful observation but of social processes. It follows that, in social constructionism, there is no such thing as an objective fact because all knowledge is derived by adopting some form of perspective. If knowledge is generated by and between people then, like people, knowledge has a past, a present and a future. We are all born into a world with predetermined conceptual and cultural frameworks which we adopt and reproduce through our use and immersion in language and culture. Language therefore is a necessary precondition for thought as we understand it; as people talk to each other, they co-construct the world. Burr (2003) suggests therefore that knowledge is not something we possess, but something we do. Bannister & Fransella (1986) highlight the peculiarity of not acknowledging the ontological impact of social processes:

'...of all the curious divisions in psychology, there is none so strange as making a special case of 'social psychology'. Strange because, unless one is a hermit, what one does takes place within a social context. Even construing a person as a hermit has a social referent - being not social' (p.86).

Constructivist approaches contend that each of us perceives the world differently and as such reality is a different place for each of us. This is a similar position to that adopted by Kelly (1955) in his personal construct psychology in which he argues that each of us

develops a framework of meaning, which he describes as constructs, and our actions in the world can be understood both in light of this framework, and as a consequence of it. As everyone construes the world through a different framework, so each of us is said to inhabit a different place. The power of Kelly's theory is that we can come to change our own, or gain an understanding of others' constructions, and so create limitless possibilities or trajectories for our own action in the world. Burr highlights that what theorists such as Kelly point to is an anti-humanist position which denies the essential nature of the person. Burr (2003) suggests that:

'...if the self is the product of language and social interactions, then the self will be constantly in flux, constantly changing depending upon who the person is with, in what circumstances and to what purpose - something that is, to some degree at least, borne out by our usual experiences' (p.54).

It could be argued therefore that language is the arena in which worlds are constructed, identities are offered, built, challenged, defended and maintained, and where personal and social trajectories are negotiated. Language provides the structure and content of our thought; what we say is what we think. But language only allows us to choose constructs that are readily available in the social world and so language not only gives form to our constructs but also shapes the constructs available to us. Constructs therefore not only represent the person but also set limits beyond which the person finds it difficult to perceive, constructs enable and constrain, facilitate and restrict (Diamond, 1991). We understand ourselves and others through concepts passed down through generations and articulated through language. Concepts such as 'envy' or 'hatred' do not exist within us as objects any more than 'art' or 'justice' yet we are able to utilise these concepts as constructs by having a shared understanding of the difference between them. However, as we are reminded by Walker (1996), we must guard against extremes that see human beings as either isolated individuals or constructed solely by social mechanisms. Walker suggests that 'both have merit but neither is satisfactory' (pp.9-10)

As we construct both ourselves and the world around us we begin to develop discourses, or ways of describing our reality, which we use to support our claims to the truth. We craft our personal ontology through the use of meanings, images, metaphors, depictions and declarations, and as our discourses become shared and agreed so they become the central to issues of power, identity and change. I consider discourses to be the scenery which provides the stage with a contextual backdrop as we play out our lives. As the acts progress so we use different scenery to agree with the audience both the identities of the players and their likely trajectories. Some scenery is used often, some only for one act, yet the scenery

is instantly recognisable to the audience and provides the conceptual conditions through which the individual's action can be interpreted. One could argue that those with the power to control the scenery control both the structures and practices of the players, and the interpretation of the audience. Burr (2003) cautions against a Machiavellian view of discourse however and takes Foucault's line that the persistence of prominent discourses is not the work of powerful and sinister groups:

'...powerful people do not, as it were, think up and then disseminate discourses to serve their purposes. Rather, the practical and social conditions of life are seen as providing a suitable culture for some representations rather than others, and the effects of these representations may not be immediately obvious. Nevertheless, once a discourse becomes available culturally, it is then possible for it to be appropriated in the interests of the relatively powerful' (p.78).

Clearly then, the maintenance of some discourses over others is linked to social strategies of power reproducing, according to Bourdieu & Passeron (1990), the structure of cultural capital through the 'symbolic violence' of 'pedagogical action' (p.6).

Social constructionism therefore is not merely claiming that language and discourse have a strong influence on perceptions of reality; it is claiming that reality itself is socially constructed. Indeed my exploration of the social constructionist perspective appears to suggest that nothing exists outside of the ability of language to describe it and discourse to give it context and therefore what this chapter has stumbled into is the point at which the social constructionist perspective becomes problematic for many observers. These critics reject the apparent idealism of the social constructionist view and would contend that they would be able to feel the rain on their face whether or not the words 'rain' and 'face' exist; surely, they would ask, social constructionists cannot deny the existence of the physical world? These are interesting and challenging questions, yet for the purposes of uniting my key theorists I am content to leave these questions largely unanswered. It is sufficient to adopt a position of realism and acknowledge the independent existence of the physical world, as this presents little threat to the task at hand. However, in acknowledging its existence, one should draw attention once again to the conceptual relationship between discourse and reality described by relativist stance. Language is described by Burr (2003) as a 'self-referent' system in that any concept can only be described by its similarities or differences to other concepts in that system (pp.81-82). If I was asked to define or describe the concept of 'rain' I am only able to do so by using other concepts within my language system. I may experience 'rain' in the physical world but I only know rain because I am using a discourse system, a system of inherited and socially constructed concepts.



Ultimately, for each of us there is a multitude of discourses available and we are constantly at work constructing and producing, claiming or resisting, the identities on offer in the prevailing discourses. It is here that the social constructionist perspective has much to say about Lave & Wenger's (1991) community of practice. Communities of practice are key in offering and assigning positions and identities to newcomers, which in turn entails different rights, obligations, expectations, responsibilities and, most importantly in situated learning, opportunities for the participants. Wenger (2008) highlights that communities of practice are more than just a collection of individuals:

'...a Community of Practice is at once both a community and an economy of meaning; the definition of a joint enterprise brings the community together through the collective development of practice but the meanings of the shared practice are to be negotiated by the participants through the politics of participation and reification. In other words, the very process that pulls the community together also creates an economy of meaning by generating something to negotiate' (p.209).

Burr (2003) highlights that there is a tendency for discourses to trap people in fixed identities or positions but suggests:

'...we can recognise and develop an awareness of the potential implications of the discourses we adopt in our dealings with others. As well as being less likely to position others in ways we did not intend, we may also gain for ourselves a useful strategy in our own struggles with personal identity and change' (p.115).

Before moving on to deal with Kelly and Lave & Wenger directly, it might be useful to summarise what the social constructionist position has had to say about these key theorists. Kelly's constructs appear to link directly with the ontological position of the social constructionist that language and discourse are key in the development and deployment of personal constructs - a psychological process of social constructivism. Its self-referential nature means that language not only gives form to our constructs but also shapes and determines the constructs available to us. My analysis has also drawn attention to how the employment of construct combinations facilitates the development of discourses which are crucial to the negotiation and assignment of identity. Discourse therefore is an important feature within communities of practice which utilise it to offer identities, assign positions or chart trajectories. The identities, positions and trajectories that one adopts define the opportunities available and, as we will go on discuss, opportunity is a key enabler in situated learning. This theoretical position is close to that adopted by Vygotsky (1978) who believed that it was the internalisation of culturally manufactured sign systems that brought about

behavioural transformations and thus, in the tradition of Marx and Engels, he maintained that the mechanism of developmental change is rooted in society and culture.

### **3.3 Getting Caught With Your Constructs Down!**

Kelly's (1955) work was an attempt to redefine the existing abstractions that characterise the nature of humanity, a task he set about because he believed that only by reworking these abstractions would it be possible to reveal different ways of understanding human endeavour. Kelly (1955) believed that by changing the abstraction from man-the-biological-organism to man-the-scientist he would be able to develop a new psychological perspective. This perspective construes humans as employing theories, hypotheses and experimental evidence where the 'ultimate aim is to predict and control' (p.5). In attempting to predict and control events he theorised, one must first learn to represent the environment and Kelly suggested that:

'Man [sic] looks at his world through transparent patterns or templates which he creates and then attempts to fit over the realities of which the world is composed. The fit is not always very good. Yet without such patterns the world appears to be such an undifferentiated homogeneity that man is unable to make any sense out of it. Even a poor fit is more helpful to him than nothing at all' (1955, pp.8-9).

Kelly adopts a position of idealism here suggesting that the world cannot be experienced directly, only through these patterns or templates which he goes on to call constructs. He further suggests that man's [sic] action in the world is the result of his efforts to increase his repertory of constructs, to develop constructs that better match reality or to subsume and arrange them within a superordinate-subordinate system. The great strength of Kelly's personal construct theory is his declaration that man's action is based on a quest to improve his or her construct system. This leads to the assumption that all present interpretations of the world are subject to constant revision and replacement, that there are always alternative constructions available, a philosophical concept Kelly (1955) calls 'constructive alternativism' (p.15). If one contrasts this outlook with the prevalent epistemological position of 'accumulative fragmentalism' (Kelly, 1969a, p.125), which postulates that the truth is collected and assembled piece by piece, one gets a sense of the way in which Kelly was attempting to manufacture an alternative psychological viewpoint. Kelly's constructive alternativism does not argue against the collection of information per se, only that the 'truth' is not measured by the size of the collection but by the individual's interpretation and categorisation of it (Bannister & Fransella, 1986). Kelly's description of the construct system is similar to that provided by Pajares (1992) in his description of belief systems:

'...belief systems, unlike knowledge systems, do not require general or group consensus regarding the validity and appropriateness of their beliefs. Individual beliefs do not even require internal consistency within the belief system. Knowledge systems are open to evaluation; beliefs are not ...belief systems are also unbounded in that their relevance to reality defies logic, whereas knowledge systems are better defined and receptive to reason. And yet, for all their idiosyncrasies, beliefs are far more influential than knowledge in determining how individuals organise and define tasks and problems and are stronger predictors of behaviour' (p.311).

This may indicate a close relationship between construct systems, and what is described here by Pajares (1992) as a belief system. Indeed Pajares (1992) goes on to describe teachers' beliefs in a way that is highly compatible with Kelly:

'All teachers hold beliefs, however defined and labelled, about their work, their students, their subject matter, and their roles and responsibilities ...these predispositions and beliefs also include questions about the purpose of schooling, about teacher responsibility for achieving their goals, and about beliefs that students are capable of achieving these goals' (p.314).

Therefore throughout this research, but particularly during the case studies, the terms 'belief' and 'construct' will be used interchangeably to describe how the participants are construing aspects of their practice such as teaching and learning, their role as a teacher, or their students.

Kelly's clinical work led him to concentrate some of his effort on an aspect of constructive alternativism which should be of interest to educators. As man can only know the world through a system of constructs, examining a person's construct system will bring us face to face with that individual. This goes some way to explain why there may be some reluctance on the part of individuals to experiment with their constructs, particularly superordinate or core constructs, for fear of the damage that the construct system, and hence the person, might sustain. The individual may fear that the findings of an 'experiment' may place them in a confusing and uncertain position where their construct system suddenly fails to support their attempts to predict and control their environment. This dichotomy, and its impact on the construing of an individual, is described by Kelly (1955) as being 'caught with his constructs down' (p.14) and leads to ANXIETY<sup>6</sup> (p.495). Fundamentally, it suggests that man is equally capable of not altering their construct system when reality presents threatening data. Whilst the utility of a construct is measured by its predictive ability, man will often seek to protect

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<sup>6</sup> See technical glossary (p.236) for a definitions of this term

constructs with low predictive value if they are an important part, or form the core, of their construct system - a situation that Kelly describes as HOSTILITY<sup>7</sup> (1955, p.510; 1969b). This may be particularly true of constructs associated with dominant discourses or identity, or those which have gone through a very long cultural and historical development. These are described by Vygotsky (1978) as psychological processes that have become 'fossilised' and the result is often automated or mechanised behaviour (pp.61-63).

Before we examine Kelly's theory in more depth it is worth pausing to reflect on the implications of constructive alternativism for learning theory. Kelly's work suggests that learning is more than the accumulation of more and more pieces of information, it is the development of an increasingly relevant structure for organising and interrelating ideas and constructs, and for dealing with those which are contradictory or have a limited range of convenience. Even the term 'development' is misleading if one adopts this stance, as it implies movement toward some finite end state or body of knowledge, a concept rejected by personal construct theory. Perhaps Kelly is suggesting that terms often used in education, such as learning or development, are irrelevant and that it is only valid to talk of 'personally meaningful change' (Bannister & Fransella, 1986, pp.76-85). Constructive alternativism may also suggest that learning, development or change may be problematic when it threatens an individual's construct system. We shall pick up these themes again toward the end of the chapter when the impact of these issues will have attained a greater degree of clarity.

Kelly (1955) illustrates his theory through what he describes as his fundamental postulate in which he proposes that '...a person's processes are psychologically channelised by the ways in which they anticipate events' (p.46). Here he is suggesting that individuals check how much sense they have made of the world by considering how well prepared they are to participate in it. We all have our view of the world (our theory) and our expectations of what will happen in specific situations (our hypotheses) and our subsequent behaviour, or changes in behaviour, are a result of our constant experiment with life. This process of striving for personal meaning is elaborated by Kelly through eleven corollaries. To fully understand Kelly's personal construct theory it is necessary to consider each corollary in depth however, for the purposes of linking Kelly (1955) to Lave & Wenger (1991), we shall concentrate our efforts on two corollaries in particular. Kelly's (1955) commonality corollary states that '...to the extent that one person employs a construction of experience which is similar to that employed by another, his psychological processes are similar to those of the other person' (p.90). This is the first of Kelly's corollaries to deal with interpersonal relations. Kelly's fundamental postulate implies that two people can be involved in the same event but

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<sup>7</sup> See technical glossary (p.236) for a definition of this term

experience that event differently through different constructions and, as a consequence, their different anticipations of events will result in different behaviours; this is summed up in Kelly's individuality corollary. Kelly rightly maintains that if an individuality corollary exists then logic dictates the existence of the commonality corollary. It may seem obvious that where two persons employ the same construction of an event so they would experience that event in a similar way and their psychological processes would duplicate each other but this is an important factor in linking Kelly's work to both social constructionism and to Lave & Wenger's Community of Practice. Indeed, this link is strengthened by Kelly's (1955) view that it is through this similarity of construction that we find the basis for similar action and, perhaps, an explanation for why certain groups behave 'similarly in certain respects' (p.93).

Kelly (1955) goes on to expand these links with his sociality corollary in which states that '...to the extent that one person construes the construction process of another, they may play a role in a social process involving the other person' (p.95). Here I interpret Kelly as suggesting that we can only interact with other human beings if we are able to develop an understanding of their construction system. If we are unable to predict how others will react to us or to specific situations then we will be unable to play a meaningful role or construct a relevant identity for that individual. To illustrate this point Kelly (1955) uses the metaphor of driving a car in which he suggests that, in this respect, being able to understand or subsume another construction system, and therefore avoid collision, is a matter of life and death. Arguably, Kelly saw the sociality corollary as forming the basis for a new approach to social psychology (which suggests that by understanding others we can both converse and engage in 'joint enterprises') and therefore is a unifying concept between individual and social psychology (Bannister & Fransella, 1986, p.90). Kelly's choice of the word 'role' in his corollary is particularly important as it begins to generate links with the development of identities or trajectories, and the adoption of discourses within communities of practice. In the definition of role, Kelly (1955) emphasises a number of critical points; firstly that role is a 'pattern of behaviour' played out in the light of the individuals understanding of his associates, however misguided. Secondly, it is not enough that the individual organise his behaviour based on this understanding of his associates, he must have the opportunity to participate in the practices, whether in accord or opposition, of the group. Thirdly, that the definition of role does not necessarily mean commonality in the construct system of the group. Commonality between construction systems '...may make it more likely that one can subsume the other, but that fact is incidental rather than essential in those cases where roles are played between people who think alike and understand each other's behaviour' (pp.98-99).

This examination of Kelly's commonality and sociality corollaries presents me with an opportunity to propose a theory that will lead us into an examination of Lave & Wenger's (1991) situated learning through legitimate peripheral participation in communities of practice. In a sense, what I am suggesting is the beginning of a theory of learning which utilises, and therefore unities, both personal construct theory and legitimate peripheral participation. I maintain that entering a community of practice results in an increasingly accurate construing of the construction systems of that community. As this understanding develops, so the individual gains access to the dominant discourses of the community and hence the individual is able to adopt, or be offered, a meaningful and relevant role that results in the opportunity to access the practice of that community. I further suggest that growing access to the practice of the community results not only in the development of personal identity and trajectory, but also to increasing levels of similarity in the construing of the individual and the community. This does not necessarily suggest that the individual simply takes on the construction system of the community, as that implies that communities of practice cannot move beyond a fixed set of concepts or constructions, it merely hypothesises that the construction systems of the individual and the community become ever closer over time. I would also borrow from Bannister & Fransella (1986) the concept of this as a three-stage process; firstly individuals must be able to imagine their identity in the community of practice. They must be able to visualise and construe it in some detail and anticipate what it would be like to hold that identity. To achieve this first stage the individual must have the opportunity to access practice. In the second stage the individual begins to enact his or her goal by modifying and aligning their behaviour with their chosen identity. To achieve this, the individual adopts the dominant discourses their identity will utilise in the community of practice. Finally, in stage three, enactment becomes 'the truth' as the construction systems of the individual and the community become ever similar (p.126).

Before I expose my theory to Lave & Wenger's work in more detail I should perhaps give the final word in this section to Kelly (1955) who offers support for this concept by not only highlighting that communities of practice are the validators of personal constructs, but also by illustrating the self-referential nature of this relationship:

'When one lives in a community in which the commonality of personal constructs is extensive one finds people behaving similarly because they tend to expect the same things. In this sense, the expectancies which are common to the group actually operate as the validators against which the individual tends to verify the predictive efficiency of his own constructs. Broadly, this is what we mean by saying that group expectancies are validators of personal constructs' (p.176).

### **3.4 Legitimate Peripheral Participation in Communities of Practice**

Lave & Wenger's (1991) work is fundamentally a theory of learning. They suggest that meaning, understanding and learning are not self-contained structures but are all defined relative to 'actional settings' (p.15). This view leads to the supposition that learning is a feature of practice, participative, present in all activity and embedded in action (Fenwick, 2008) yet, as Jorgensen (2004) suggests, work and education have become increasingly distanced from each other. Lave & Wenger (1991) describe their theory as situated learning but caution against adopting simplistic views such as 'learning in situ' or 'learning by doing'; situated learning is a more subtle and complex concept which suggests that agent, activity and world mutually construe and constitute each other (p.31). Practice is subsumed within the process of learning and learning is an integral feature of practice, learning does not occur when the individual receives a body of factual knowledge, but when they initiate activity on and in the world. This view sees therefore sees social participation as the vehicle for learning (Hughes et al, 2007) and this participation is oriented according to the individual's future trajectory (Nielsen, 2007).

Lave & Wenger (1991) illustrate and expand their theory by introducing two important concepts. I consider that they use the first, legitimate peripheral participation, to describe the process of situated learning and attempt to anchor that process in the second, communities of practice, which provides the necessary conditions for legitimate peripheral participation. Legitimate peripheral participation is the lesser known but arguably more important of the concepts because it aims to illustrate the process of situated learning. Lave & Wenger are keen to highlight that it is not a simple 'participation structure' (p.23) or model, nor is it an 'educational form', 'pedagogical strategy' or 'teaching technique' (p.40) - it is a view point, a way of understanding learning. They deliberately try to distance legitimate peripheral participation and situated learning from intentional instruction highlighting that learning is not necessarily the result of instruction and what is learned is not always what is taught – learning, they infer is more a question of access to practice than to instruction.

'Communities of practice', by contrast, has become a relatively well known and utilised concept. Lave & Wenger's (1991) initial work left communities of practice as something of an under developed concept and it was not until Wenger's (1998) later work that the notion of a community of practice was expanded upon. Whilst I wish to concentrate my efforts on a more detailed exploration of legitimate peripheral participation there are a number of important ideas associated with communities of practice which will help to cement the conceptual links with Kelly's Personal Construct Theory.

In his introduction, Wenger (1998) uses a model which provides an entry point into a wider social perspective on learning. The model suggests participation in communities of practice encompass the processes of both being an active participant in the activities of the social community, and constructing identities and trajectories in relation to these communities. His model of social learning therefore has four components: 'learning as experience', 'learning as doing', 'learning as belonging', and 'learning as becoming' (p.5). He therefore suggests, as I have, that communities of practice are a constitutive element in a wider social learning framework. Wenger (1998) also begins to define the properties of a Community of Practice which he contends are 'mutual engagement', a 'joint enterprise', and a 'shared repertoire' (p.73). For the purposes of this chapter I will not explore these properties further, principally because I have relegated the concept of communities of practice to a supporting role in my theory of learning. I will however make one assertion before moving on. I suggest that the properties of such a community as defined by Wenger (1998) will lead it to share a common construction system. That is not to say that every individual within that community shares every aspect of the system, indeed within any community of practice it is likely there will exist a number construction systems, identities and trajectories. I merely suggest that the community itself has a recognisable system of constructs and discourses; a family (Procter, 1996) or corporate (Balnaves et al, 2000) construct system, that exists at a level above the individual, and that allows the community to predict and act with consistency. Learning in Communities of Practice therefore is as much about challenging the collective construction system and discourses as it is about changing the construction systems of individuals. Indeed Huzzard (2004) suggests that if knowledge is socially constructed then when new actors draw on that knowledge they attribute new meaning to it. Wenger supports this view suggesting that learning in practice includes the processes of evolving forms of mutual engagement, understanding and tuning their enterprise, and developing their repertoire, styles and discourses for the communities involved. Such learning is not just a mental process argues Wenger (1998):

'...learning has to do with the development of our practices and our ability to negotiate meaning. It is not just the acquisition of memories, habits and skills, but the formation of an identity. Our experience and our membership inform each other, pull each other, transform each other. We create ways of participating in a practice in the very process of contributing to making that practice what it is' (pp.95-96).

It should be acknowledged however that Lave & Wenger (1991) fail to fully analyse the less benign aspects of communities of practice. James (2007) argues that Lave & Wenger describe these communities a way implies that they are coherent and consensual, whilst Much & Mahapatra (1995) suggests one simply learns to do what is acceptable in the



community. Jewson (2007a) summarises a range criticisms that highlight the inherent conflict and tensions that may be located within these communities, nevertheless this chapter argues that these issues do not make these communities any less useful as a conceptual framework but rather that the researcher must be cognisant of these factors during the analysis and interpretation of the data.

To bring this chapter to a conclusion the final step is to examine legitimate peripheral participation in some detail and demonstrate how, by linking Lave & Wenger's legitimate peripheral participation and Kelly's personal construct theory, I can begin to validate the theory of learning I proposed earlier. Lave & Wenger's (1991) most salient point in describing situated learning through legitimate peripheral participation is that, as an aspect of social practice, learning involves the whole person; it is linked not just to specific activities but to social communities – 'it implies becoming a participant, a full member, a specific kind of person' (p53). Learning only partly entails the mastery of new tasks and activities because these do not exist in isolation, they are part of a wider system that both constructs and is constructed by these tasks and activities. This system is initiated, developed and reproduced within social communities which are produced, at least in part, by individual identities and trajectories. Learning therefore implies becoming a different person, with respect to the identities and trajectories on offer. Lave & Wenger (1991) claim in fact that the development of identity is the fundamental concept of legitimate peripheral participation and that, from this perspective, 'learning and a sense of identity are inseparable: they are aspects of the same phenomenon' (p.115).

At several points earlier in this chapter I have suggested that by examining an individual's construction system one is likely to come face to face with the person. I further suggested that this is why core constructs may become fossilised and difficult to change, even when evidence suggests that they hold poor predictive validity. From this position it follows that process of adopting new identities and trajectories is a process that involves modifying ones construct system to some extent. Lave & Wenger's (1991) work suggests that this process is begun when a newcomer is offered legitimate but peripheral access to the practice of a community, they comment that '...the practice of the community creates the potential 'curriculum' in the broadest sense - which may be learned by newcomers with peripheral access' (p.93). From this peripheral position newcomers assemble a perspective on what constitutes practice and what identities and trajectories are on offer - essentially, just as Kelly (1955) postulated in his sociality corollary, newcomers begin to construe the construction processes of the community. Lave and Wenger (1991) highlight that this process is informed by the newcomer learning how to talk both about and within practice and that this begins to provide the 'face validity' required to progress towards full participation

(p.107). Linehan & McCarthy (2000) contend that Lave & Wenger's (1991) work attempts to offer a union between the individual and the social commenting:

'...In what might seem as at first gloss like a contradiction, they [Lave & Wenger] call for a focus on the person but not in individualist terms. Their person is not described in traditional cognitive or motivational terms, rather in terms of changing participation in a network of relations in the community. This in turn redefines debate on the individual and cultural contributions to learning by decentring the person' (p.438)

This adoption of the prominent discourses of the community is a key process in the establishment of identity and trajectory. A newcomer's movement towards full participation does not take place in a static environment however, the discourses and construction systems of both the newcomer and the community are in perpetual motion as the newcomer acts on the community as well as in it. Lave & Wenger describe this process as the 'continuity-displacement contradiction' (p.114) and illustrate the tension that granting legitimate but peripheral access to newcomers with different construct systems and discourses inevitably places on the community. However, they suggest that whilst needing to engage with existing practice, newcomers also have a stake in its development and change. Lave & Wenger's (1991) work here provides an additional level of clarity to my claim, based on Kelly's (1955) commonality corollary, in which I suggest that as the newcomer moves towards full participation so there is likely to be increasing levels of similarity in the construing of the individual and the community. Whilst I cautioned at the time against the view that the individual simply takes on the construction system of the community, as that implies a closed domain of knowledge, the continuity-displacement contradiction does provide a theoretical basis and potential explanation for this eventual, if hypothetical, union.

### **3.5 Identity, Change and Legitimate Peripheral Participation**

It only remains for me to attempt to summarise my view of learning, to highlight how this may more closely connect the work of Kelly (1955) and Lave & Wenger (1991) and, as promised, to comment on what the implications are for practice and for this research. Firstly I should start by highlighting that when I use the term 'learning' I am referring to a process of personally meaningful change, most likely involving the development of identity, and as such I view learning as a continuous process of personal invention and reinvention. At its most simple, my theory suggests that the individual utilises, through the process of legitimate peripheral participation, the social traditions, routines, processes, identities and discourses of the community of practice to provoke a change in their personal construct system which

allows them to pursue their chosen trajectory. The community of practice would seem offer what Vygotsky (1978) would recognise as a 'Zone of Proximal Development' (p.84), that is a gap between the individual's current identity and the identities they are able to adopt within the community. Like Wenger (2000) I view learning to be located in the interplay between social competence and participation, and personal experience. Indeed my theory sits comfortably within a central tenet of Vygotsky's (1978) cognitive theory in which he suggests that learning is achieved through the transformation of 'interpersonal (social) processes into intrapersonal ones' (p.131). I therefore link learning to the development of an increasingly relevant and useful construct system and the adoption of new identities as, like Lave & Wenger, I see learning and identity as inseparable elements of the same process. Changing ones identity will result in learning just as surely as learning will result in a change of identity. This is a view is supported by Kalekin-Fishman (1996) who contend that

'People construe in order to cope with reality and coping involves activity construing the essential parameters of events and their configurations ...Moreover, construing events entails a constant fine-tuning of the self. While construing, the person organises and reorganises the set of core constructs we interpret as the self. The core constructs govern access to what we construe as our inner reality' (p.205).

This view is taken further still by Mair (1977) who suggests that:

'Kelly laid little emphasis on the necessity of distinguishing between internal and external ...Kelly invites us to consider 'self' as a personal construction rather than a geographic location' (p.144).

'Thus within this community a person may be able to successively 'dwell in' & then 'break out' from the various 'other' persons he has identified. We can therefore consider 'self' not as an object of our attention but as a 'base' from which to act. Each of these possible 'selves' can be identified only as the person somehow steps away from that base of experiencing & makes it 'other' in relation to yet a further vantage point ...Often we may limit the number of perspectives from which we are prepared to experience events & so constrict ourselves within familiar, manageable, even if painfully narrow limits' (pp.146-147).

What I have attempted to achieve in this chapter is to illuminate the situated nature of this process and demonstrate how Kelly's Personal Construct Theory, particularly his commonality and sociality corollaries, provides fresh observations on both the process of legitimate peripheral participation, and on the importance of communities of practice as the catalyst for the learning experience. My conception of this as a three-stage process helps us to understand how increasing levels of participation in both practice and discourses

contribute to the development of identity through the shifting of personal construct systems. I have also shown how newcomers act both on and within practice ensuring that communities are able to develop beyond a fixed set of activities and discourses. As I have stated previously, newcomers need to participate in existing practice but are key stakeholders in its development and change. I contend that the hypothesis proposed in this chapter is significant, not just because it attempts to unify the work of Kelly and Lave & Wenger, but because it begins to address areas of conceptual weaknesses that exists behind Lave & Wenger's (1991) notion of legitimate peripheral participation. Personal Construct Theory not only provides a distinctive observation on legitimate peripheral participation, it facilitates its explanation

I am keen to echo Lave & Wenger (1991) in maintaining that I what propose is less a pedagogical strategy or teaching technique, and more a view on the learning process and as such, any observation on its impact on practice exists at that level. That said there are a number of significant areas worthy of comment, some of which play a key role in the development of identity. Firstly this chapter has highlighted the importance of access to practice in creating opportunities for learning. Without legitimate access to practice, newcomers are unable to experience the identities, trajectories and discourses that will challenge, stretch and some cases invalidate elements of their construct system. Again, Pajares (1992) supports this view and provides further evidence of conceptual links between beliefs and construing by suggesting that 'Beliefs are unlikely to be replaced unless they prove unsatisfactory, and they are unlikely to prove unsatisfactory unless they are challenged...' (p.321). This process of challenging and validating constructs through social practice (Neimeyer et al, 1996) is vital in the learning experience as I have conceptualised it. However, as Chapter 2 suggested, access to practice may be a necessary but not sufficient condition, and that opportunities for learning may be reduced without access to a range of practitioners as well as a range of practice.

Secondly, it is difficult to overemphasise the importance of language and discourse in the learning process. Language use is a fundamental element in the process of developing new identities. Language has the ability to furnish the person with new constructs or to provide existing construct systems with a fresh range of convenience. Discourse appropriation is a necessary part of adopting an identity and the challenging and modification of discourses is part of the progression toward full participation. Fundamentally, language and discourse validate the individual's identity.

Finally, I believe that any educator would be interested in the concept that an individual may deliberately choose not to learn from their experience of practice, or from dominant

discourses, because of the potential damage this may inflict on their existing construct system. The fear of 'getting caught with their constructs down' and what Kelly (1955) describes as the THREAT<sup>8</sup> (p.489) and ANXIETY (p.495) that this creates may present a serious barrier to personally meaningful change and may severely restrict the identities and trajectories available to this person.

### **3.6 Summary**

The ideas and hypotheses offered in this chapter provide the conceptual underpinning for this research. In particular, this chapter offers support for the main research question by underpinning how construing can be influenced by the practices and social activities conducted in communities of practice. In the next chapter, these ideas are utilised to articulate the research methodology and show how the selection of conceptually appropriate data collection methods has been shaped.

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<sup>8</sup> See technical glossary (p.236) for full definitions of these terms

## 4 METHODOLOGY

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### 4.1 Introduction

*We shall not cease from exploration  
And at the end of all our exploring  
Will be to arrive where we started  
And know the place for the first time.*  
Four Quartets, TS Eliot

My aim in this chapter is to articulate, analyse and evaluate my chosen research paradigm and to demonstrate how this approach framed the subsequent case selection, data gathering and analysis. The chapter is therefore divided into two parts; the first part aims to articulate and justify the overall research strategy - in particular the case study approach utilised in this research. Part two presents a more detailed analysis of the research methods chosen and highlights how these methods link with the reflexivity and conceptual issues raised by the previous chapters. As a result, the two parts of this chapter work in tandem to set out the overall research approach utilised.

## PART ONE

### 4.2 Research Strategy and Rationale

#### 4.2.1 Research Questions

Stake (1995) suggests that perhaps the most difficult task that the researcher must tackle is to design 'good' research questions that will 'direct the looking and thinking enough, but not too much' (p.15). Bassey (1999) contends that all research design requires some manner of conceptual organisation; conceptual 'bridges', or a 'conceptual background' from what is known to the practice and conduct of the research (p.73). Stake (1995) describes these as 'cognitive structures to guide data gathering and outlines for presenting interpretations to others' (p.16). The conceptual structure provided by hypotheses and goal statements, he argues, sharpen the focus of the research and allow us to concentrate on the issues of the case.

As stated in the previous chapters, the direction of this research project was initially set by a number of research questions. The main research question articulated the overall problem that needed to be addressed by this study. The research sub-questions were designed so that answering them contributed to addressing the main research question. Additionally, as I

will go on to explain in more detail, the research sub-questions influenced the choice and design of the data gathering methods. The research questions were as follows:

### **Main research question.**

How, and to what extent, do Communities of Practice influence the development of constructs in beginning teachers?

### **Research 'sub-questions'.**

1 - What do beginning teachers believe influences the development of their constructs?

2 - How does the construing of beginning teachers change over a 12 – 18 month period of initial professional practice?

3 - To what extent do the construction systems of beginning teachers tend towards the construction system of the Community of Practice following a 12 – 18 month period of initial professional practice?

4 - How do beginning teachers view their identities, positions and trajectories within their Communities of Practice, and how does this view change over a 12 – 18 month period of initial professional practice?

During the data gathering activities, it became apparent that influences on the construing of beginning teachers were not confined to those residing within communities of practice. I felt that in order for the case studies to remain authentic, the exploration of these influences should be included within the research. However, given that the first research sub-question asks what beginning teachers believe influences their constructs, I felt that there was no need to change or add extra research questions in order to capture this data and extend the scope of the research.

### **4.2.2 Research Strategy - Selection of Methodology**

Any research project should be underpinned by an overall stance, approach or methodology which is primarily concerned with the rigorous and fair presentation of empirical or other types of data. Yin (2009, p.8) states that three questions determine the selection of an appropriate research methodology:

- 'The type of research question posed'.
- 'The extent of control the investigator has over actual behavioural events'.

- 'The degree of focus on contemporary as opposed to historical events'.

Generally, Yin (2009) suggests, 'how' and 'why' questions are more explanatory in nature and are therefore likely to lead to the use of experiments, histories and case studies as methodologies (p.9). The characteristics of the research questions, the lack of contextual and behavioural control within the research setting, and the focus on participants who are located in a contemporary setting led to the selection of a case study methodology. The case study was instrumental and theory-testing in nature (Stake 1995; Bassey 1999), in that there was a specific research question and the research hoped to gain insight by studying a particular case within a particular context.

Yin provides a two-part definition of the case study approach. The first part defines the scope of a case study; the second part its technical definition. Yin (2009, p.18) states:

'A case study is an empirical inquiry that':

- 'investigates a contemporary phenomenon in depth and within its real-life context, especially when...'
- 'the boundaries between phenomenon and context are not clearly evident'.

'The case study inquiry':

- 'copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as a result...'
- 'relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result...'
- 'benefits from prior development of theoretical propositions to guide data collection and analysis'.

This definition is important because it highlights the empirical nature of the case study, that it is concerned with a distinctive situation, that it is focussed on a contemporary phenomenon in context, and that it is undertaken using multiple data collection methods (Robson 2002). More importantly, Yin's (2009) definition provides an important link between the theoretical positions developed in the earlier chapters, the subsequent research questions, the chosen methodology, and, ultimately, the data collection and analysis methods. I will show how these links provided a strong framework that permeated through the entire design and execution of this research project.



Robson (2002) highlights therefore that the 'defining characteristic of case study research is its concentration on a particular or distinctive 'case' (or small number of cases)' however, Robson cautions that the researcher would do well to remember that each case always occurs in a specific social and physical setting and that means we cannot study these cases devoid of context in a way that a quantitative researcher might (p.179). Whilst this focus on phenomenon in context suggests that the case study relied on qualitative methods, I hope to show that the data collection was more effectively conducted by adopting a mixed methods approach to provide a rich data set. However it should be noted that, despite this mixed methods approach, the research relied primarily on qualitative data. Stake (1995) suggests there are three major differences between qualitative and quantitative approaches that help to account for why this study will have such a qualitative emphasis; firstly, the distinction between understanding and explanation as the purpose of the study; secondly, the distinction between a personal and impersonal role as the researcher; and lastly a distinction between knowledge constructed and knowledge discovered. The qualitative focus of the research therefore allowed me to pursue my own constructivist epistemology much more closely, and to be more personally involved in an interpretive search for understanding, rather than to strive for explanation and control which would inevitably be the focus of a more quantitative approach.

In quantitative studies, the research question tries to present the problem as a relationship between a small number of variables, and efforts are made to operationally bound the inquiry and define these variables. At first glance one might argue that I have adopted this type of experimental, positivist model in the framing of my main research question. Indeed utilising Gerring's (2006) notations it is possible to identify both a dependent variable (Y) and an independent variable ( $X_1$ ) within the question. Adopting an experimental framework, the question could easily become "Are Communities of Practice ( $X_1$ ) the cause of the development of constructs (Y) in beginning teachers?" Yet this reframing neglects many of the subtleties and complexities of the original question. For instance, "How, and to what extent..." demonstrates the research question, and therefore the purpose of the research, posits the assumption that communities of practice do influence the development of constructs and therefore is focused on understanding this process. The use of "influence" rather than "cause" is an acknowledgement that it was considered unlikely that there would be a deterministic causal relationship between  $X_1$  and Y. Indeed, it was thought likely that there would be a number of other independent, background, variables ( $X_2$ ) which would compete with  $X_1$  and which, in a naturalistic setting, cannot be controlled. I contend therefore that whilst my research question may have suggested a quantitative,  $X_1$ /Y-centred study, the purpose of the research is primarily to understand the relationship between

communities of practice and personal construct systems not to conduct research into a specific, falsifiable causal hypothesis. The study's orientation is therefore away from a cause and effect explanation and towards the construction of meaning through interpretation. This approach is supported by Gerring (2006) who suggests that:

'...case study research usually relies heavily on contextual evidence and deductive logic to reconstruct causality. It is not sufficient to simply examine the co-variation of  $X_1$  and  $Y$  because there are too many confounding factors and because the latter cannot be eliminated by the purity of the research design or by clever quantitative techniques' (p.172).

### **4.2.3 Advantages and Disadvantages of Case Study Methodology**

The need for a case study approach arises out of the desire to investigate and understand complex social phenomena (Yin 2009). Therefore the advantage of using case study as a methodology was its ability to allow the researcher to retain the significant characteristics of real-life events, behaviours and contexts, and to consider them with respect to the 'whole' person. The case study approach allowed for the examination of operational links traced over time, rather than mere frequency or incidence, but relies heavily on selecting the correct unit of analysis. In this sense Cohen et al (2000) suggest case study data are 'strong in reality' but difficult to organise and analyse whereas other types of research data are 'weak in reality' but more easily organised and analysed (p.184).

Case studies frequently follow the interpretive tradition of research, seeing the situation through the eyes of participants. Its sympathy to the interpretive paradigm has rendered the case study an object of some criticism. Smith (1991) suggests that the case study methodology:

'...is the logically weakest method of knowing. The study of individual careers, communities, nations, and so on has become essentially passé. Recurrent patterns are the main product of the enterprise of historic scholarship' (p.375).

Whilst this demonstrates an ideological, rather than a critical perspective, it does serve to perpetuate a number of the traditional prejudices against the case study methodology. It is said they take too long or produce unreadable reports, they lack rigour and are disposed to allow equivocal evidence or biased views to influence the results, there is little basis for scientific generalisation, and they lack the ability to deal directly with causal relationships (Cohen et al, 2000; Yin, 2009). Robson (2002) suggests these prejudices are the 'ghosts of the positivist view of science that still linger on' (p.180). In suggesting that case studies take too long, critics appear to confuse case study methodology with a data collection method. Additionally, case studies, just like any other research undertaking, can be conducted in a

sloppy, mechanical, incompetent or even dishonest manner. Even with the best intentions, biased and selective accounts can surface. The challenge for the case study researcher therefore is to devise and develop a robust research design that verifies data and exposes inconsistencies and, in this sense, its utility as a methodology lies ultimately with the individual researcher. Case studies, just like most non-experimental methods, may struggle with causal links but are an extremely effective research instrument in understanding the 'why' and the 'how'. Finally, as Sim (1998) explains, case studies only purport to offer 'analytic generalisation', where '...that data gained is used to provide theoretical insight which possess a sufficient degree of generality or universality to allow their projection to other contexts or situations', and not to enumerate frequencies, as in 'statistical generalisation' (p.350). This is an important distinction which we shall return to, and expand, when discussing the utility of multiple-case study.

Ultimately, Robson (2002) suggests that case studies can be scientific but rather than viewing them through a positivist lens, that they should be understood as a fundamentally different research strategy. Carr and Kemmis (1986), reach similar conclusions suggesting that:

'...what distinguishes scientific knowledge is not so much its logical status, as the fact that it is the outcome of a process of enquiry which is governed by critical norms and standards of rationality' (p.121).

#### **4.2.4 Case Study Type and Unit of Analysis**

Yin's (2009) case study design matrix indicates there are four broad categories of case study design which categorise case studies as either embedded or holistic and as single- or multiple-case (see Figure 1). Embedded or holistic designs refer the extent to which the case study deals with more than one unit or level of analysis. A design which concentrates its efforts on units of analysis that exist at the same level as the study focus is categorised as a holistic case study. A design that utilises different units of analysis that exist at a level below the study focus (i.e. are embedded sub-units within the study), and which are used to inform and contribute to the level above, is defined as an embedded case study. Yin (2009) highlights that both designs have their pitfalls; holistic designs can often be conducted at an 'unduly abstract level', whilst embedded designs risk focusing too heavily on the sub-unit level and failing to return to the larger unit of analysis, and therefore lose 'research focus' (pp.50-52). It is a significant part of the research design process therefore to correctly define the unit of analysis of the case itself and ensure that it is situated at the correct level.

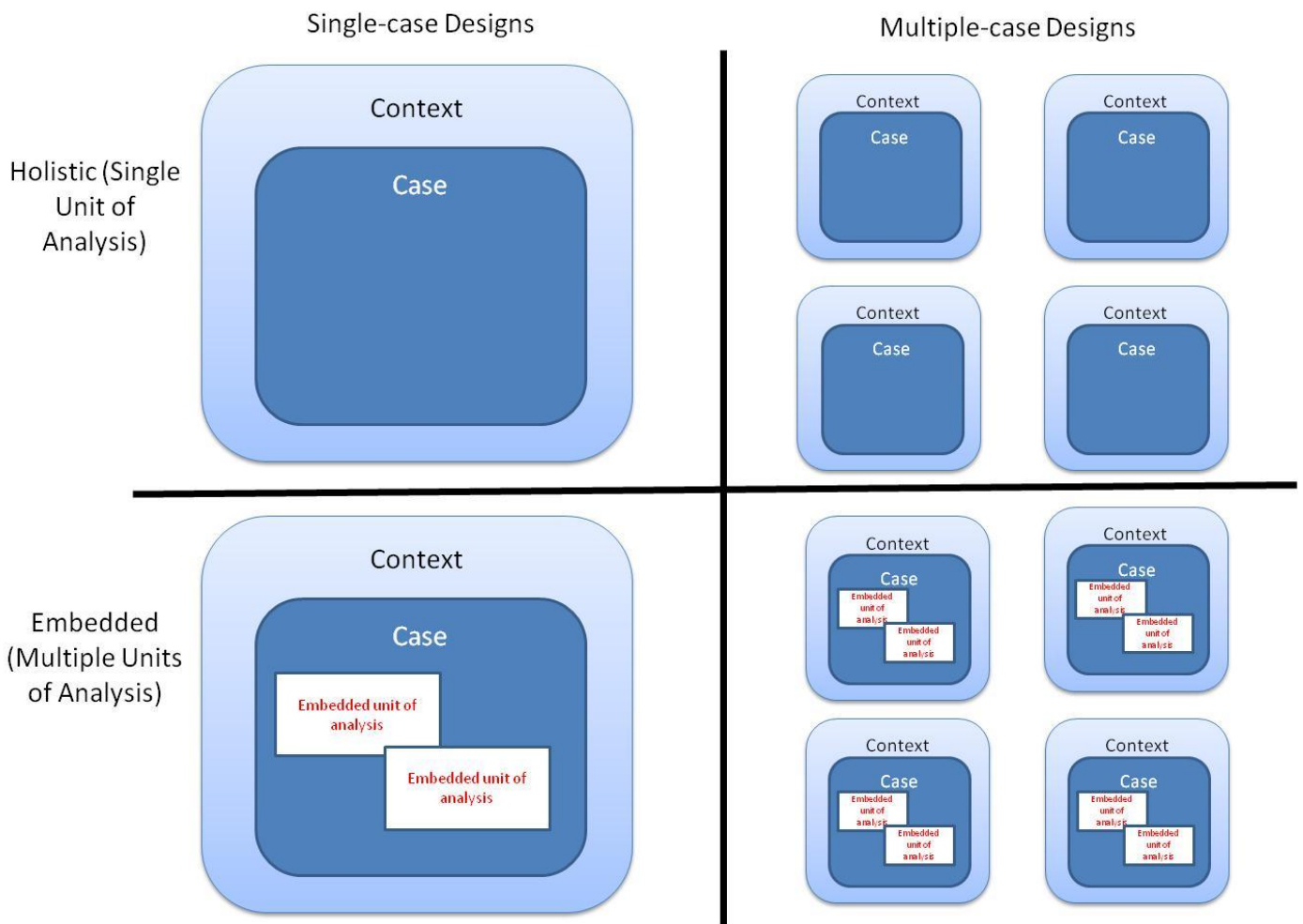


Figure 1 - Basic Types of Designs for Case Studies from Yin (2009, p.46)

In some research fields, multiple-case studies are considered to be a different strategic approach from single-case studies, but this view is not supported by Yin (2009) who views them as variants of the same methodological framework and therefore the choice between them is one of 'design rather than of strategy' (p.53). A number of rationales underpin the selection of a single-case study design and, because conducting a single-case study is analogous to conducting a single experiment, the same circumstances apply. These are, according to Yin (2000): the 'critical' case, the 'unique' case, the 'representative' or 'typical' case, the 'revelatory' case, and the 'longitudinal' case (pp.47-49). Whatever the rationale however, single-case studies represent a considerable risk in that they may subsequently reveal themselves to be a different phenomenon to that initially anticipated.

Multiple-case studies have well-understood advantages and disadvantages when compared to single case studies. Properly constructed, the evidence from a multiple-case study is considered to be more compelling yet, by definition, a multiple-case study approach is unlikely to be an appropriate option for many, if not all, the circumstances described previously. Additionally, it is also easy to fall into the trap of selecting multiple case-studies

as one might select multiple respondents in a survey, or subjects in an experiment, that is to adopt a sampling design. Yin (2009) is clear that one should view multiple-cases as one would view multiple experiments and adopt a 'replication' design (p.53). This difference between these design postures, whilst subtle, is significant and worthy of further explanation. Replication logic, used in multiple experiments, is such that when a significant finding is uncovered a priority would then be to replicate this finding in a second, third or more through further experiments. Some of these further experiments may reproduce the conditions of the first; others may seek to alter conditions thought to be insignificant. The key argument of replication logic is that only duplication of the original results can be considered meaningful. Yin (2009) explains that replication logic is easily applied to multiple-case study design; each case is carefully selected so that it either predicts similar results ('literal replication'), or predicts contrasting, but controlled, results ('theoretical replication') (p.54). A multiple-case study design may use a simple replication type, or a mixture. If all the cases occur as expected then this provides compelling support for the initial propositions, however, if the cases are contradictory the initial proposition may require revision. Replication logic should be contrasted with 'sampling logic' which seeks to reflect the entire population with 'inferential statistics used to establish the confidence intervals for which this representation is presumed accurate' (Yin, 2009, p.56). Sampling logic is best utilised when the researcher wishes to investigate the prevalence or frequency of a particular phenomenon and is therefore inappropriate in case study research as it would require an impossible number of cases. It is also worth mentioning Bassey's (1999) view that the study of a singularity in a case study leads to what he describes as 'fuzzy generalisations' (p.46). Whilst not a term that immediately inspires confidence, fuzzy generalisations result from empirical enquiry and simply suggest that something may happen, but without any measure of its probability. It is therefore a proposition or generalisation divorced from certainty.

This research adopted a holistic and multiple-case design, and the chosen units of analysis were positioned at the level of the individual. The focus of the study was to understand the influence of communities of practice on the development of constructs in individuals and the units of analysis were therefore the individuals themselves. The research utilised literal replication choosing multiple-cases in the belief that each case would deliver similar results. As the study continued, individual cases that began to diverge from the initial hypotheses articulated in Chapter 3 helped to support theoretical replication (once the reason for the divergence could be theoretically maintained) or forced a change in the initial theoretical position. This approach is referred to by Stake (1995) as 'progressive focusing' (p.9). Stake suggests that one of the distinctive characteristics of qualitative research is its emphasis on continual interpretation and assertion; recording objectively, probing meanings, and refining

or substantiating those meanings through progressive focusing. Stake (1995) implies that these are the actions of a qualitative researcher who understands that other interpretations exist, and that we draw interpretations and assertions:

'...from understandings deep within us, understandings whose derivation may be some hidden mix of personal experience, scholarship, and assertions of other researchers' (p.12).

#### **4.2.5 Validity and Reliability**

According to Yin (2009) there are four tests that are common to all social science methods, each deserving explicit and thorough attention during the design and execution of a case study: 'Construct Validity', 'Internal Validity', 'External Validity', and 'Reliability' (p.40).

**Construct Validity.** Construct validity seeks to identify and utilise the correct set of operational measures for the concepts and hypotheses being studied and is a particularly challenging process for case study researchers. This, contends Yin (2009), is a two-step procedure that involves, firstly, defining the specific concepts to be studied, and secondly, selecting operational measures, in this case data collection methods, that complement each concept. In this research, the key concepts under study are the development and change of personal constructs and identity, and the influence of communities of practice on this change. In subsequent parts of this chapter, I will show how the data collection methods complement, and are matched to, these key concepts and how I will increase construct validity through the use of triangulation protocols which utilise multiple sources of evidence, chains of evidence, and participant review.

**Internal Validity.** Internal validity is mainly a concern for studies which are explanatory in nature, when the investigator seeks to explain how and why  $X_1$  led to  $Y$ . Yin (2009) rightly maintains that the researcher who incorrectly concludes that there is a causal relationship between  $X$  and  $Y$  without considering some other factor,  $Z$  ( $X_2$  using Gerring's (2006) notation), has failed to deal with the threats to internal validity. The broader problem is the inferential character of this research; due to the nature of the causal mechanisms under investigation, this study has been unable to fully utilise direct observation as a method and has therefore had to infer that a particular occurrence resulted from some earlier event. In this sense internal validity has been strengthened by anticipating and examining rival interpretations and using convergent evidence to support one interpretation and reject the others.

**External Validity.** External validity is concerned with how useful the research findings are beyond the immediate case, and case study critics are quick to suggest that case studies offer a poor basis for generalisation. However, as we have previously discussed, these

critics are generally applying a sampling framework and implying statistical rather than an analytical generalisation. Yin (2009) points out however that analytic generalisation is not automatic. A hypothesis is best tested by replicating the findings of one case on a second, third and even fourth case. As I have previously stated, this research utilised replication logic, specifically literal replication, to enhance external validity.

**Reliability.** Finally, the reliability of a study is judged on the extent to which a later investigator could follow the same procedures and arrive at the same results. Yin (2009) suggests that case studies must be meticulously documented and conducted as if 'someone was looking over your shoulder'. Good practice, he suggests, is that the research is conducted so that an auditor could, in principle, repeat the procedures and arrive at the same interpretations. Bassey (1999) suggests that, for case study, an alternative to validity and reliability is the concept of 'trustworthiness' (p.75). Bassey (1999) proposes that to ensure the trustworthiness of a case study the researcher must deal with questions such as: 'has there been prolonged engagement with the data sources?' 'Have raw data been adequately checked with their sources?' 'Has there been sufficient triangulation of raw data leading to analytical statements?' 'Has the working hypothesis, or evaluation, been systematically tested against the analytical statements?' 'Has a critical friend thoroughly tried to challenge the findings?' 'Is the account of the research sufficiently detailed to give the reader confidence in the findings?' 'Does the case record provide an adequate audit trail?' (pp.75-76). In response to these assertions, the research data have been critically evaluated by both the research participants and academic colleagues, and subsequently presented in such a way as to allow the reader to reach their own interpretations of the data. I therefore contend that the validity and trustworthiness of the research has been maintained by presenting both the methodology and the research data to the reader in such a fashion that he or she might act as both auditor, and co-constructor of the interpretations, meaning and assertions on offer. Indeed this reflexive stance, which seeks to expose the interpretive processes of the researcher and preserve the voice of the participant, is a key tenet of the collaborative narrative approach which we shall return to, and expand, when we examine the specific research methods used.

## **PART TWO**

### **4.3 Research Design and Rationale**

#### **4.3.1 Case Selection**

As we have previously discussed, case study research is not based on a sampling research paradigm. Gerring (2006) points out that random selection techniques such as those used

to select cases in large-sample research are likely to produce a representative sample on average but any given small-sample, such as a case study, may be wildly unrepresentative. This is a problem is referred to as 'precision' (Gerring, 2006 p.87). However, we do not primarily study a case with the aim of understanding other cases. We undertake case study research with the obligation to understand one, or a small number, of cases. Any research design therefore should aim to maximise what we are able to learn. Gerring (2006) concurs, suggesting that there is no guarantee that a small number of cases chosen randomly will produce 'leverage' into the research question; a sample therefore may be 'representative but uninformative' (p.87). Therefore the principal criterion of case selection, according to Stake (1995) will be less 'which cases represent the totality of cases' but rather 'which cases will help us understand the problems under investigation' (p.7). In case studies, the aim of selecting cases on the basis that they illuminate the phenomenon must be met through non-random selection procedures. Making the correct selection, Gerring (2006) reminds us, requires an analysis and implicit understanding of the case in relation to the full variation of the potential population of cases, so that the researcher can determine whether the case is 'typical' or 'extreme', 'diverse' or 'deviant' (pp.89-90).

This research selected cases on the basis of their typicality with the aim of achieving literal replication. Typical cases are, by definition, representative and used to investigate causal relationships. The researcher may use the typical case to confirm or disconfirm a hypothesis or reframe it in a way consistent with the findings of the case study (Gerring, 2006). Specifically, the cases selected were typical in the fact that they have had no previous teaching experience, other than that gained during the professional education programme which was part of the study, and therefore had not developed a strong set of teacher focused constructs about teaching. They were also typical in that they were all teaching the same Command, Leadership and Management (CLM) curriculum. It was assessed that other factors, such as gender, had a limited bearing on the causal mechanism under investigation.

The research participants were recruited from two cohorts of PGCE students. I visited each cohort during their BT course and gave them a short presentation on the research study. Following the presentation, each student was left with an information sheet, consent form and a recruiting form (all at Appendix 1) on which they indicated whether they wished to participate in the research study. The students were then asked to return the recruiting form prior to the completion the BT course. Across the two cohorts, nine students initially indicated they would like to take part in the study, a recruitment success rate of approximately 50%.



The research therefore commenced with three female and six male participants all aged between 22 and 28 and without any prior teaching experience. However, because a number of the initial participants received assignments outside of the UK, limiting their ability to fully participate in the interviews, this quickly dropped to one female and four male participants - these participants remained for the duration of the research and, as previously stated, the five participants' case studies are presented in Chapters 5-9. Whilst it was assessed that the gender of the participants had little bearing on the phenomenon being studied, it is worth noting that this gender mix was not representative of the ETS Branch which has a roughly 50/50 gender mix. However, as has been previously discussed, this research did not attempt to adopt a sampling design and therefore makes no claim that the cases are a representative sample of the ETS Branch as a whole. Rather, they are typical cases and thus sound representations of the beginning teachers within the Branch. The case selection approach was therefore not trying to achieve 'precision' (Gerring, 2006 p.87) but focusing on capturing the typicality required for literal replication.

#### **4.3.2 Ethical Issues**

Undertaking research with human participants requires the prerequisite understanding that all participants have fundamental rights; these include the right of free and informed consent, privacy, protection from exploitation, and protection from harm. It is the researcher's responsibility to apply a moral code which upholds these premises. This research complied with both Ministry of Defence (MOD) Joint Service Publication 536 (Research Ethics) and the University of Hertfordshire's (UH) regulations on the ethical conduct of research. Ethical approval for the research was granted by the MOD Research Ethics Committee (MODREC) (at Appendix 2) and the UH Faculty of Humanities, Law and Education Ethics Committee (at Appendix 3).

Because the participants were drawn from newcomers to the ETS branch I was well known to them. They were also of lower rank and therefore it had to be ensured that each participant understood not only that there was no obligation to participate in the research, but there was no sanction for not doing so. A consent form (at Appendix 1) was used to ensure that the participants recognised these issues and they understood that their consent could be withdrawn at any time during the research project without explanation. To reduce the potential power differential, interviews were conducted in civilian clothing and in locations chosen by the participants. There is evidence within the transcripts that suggested the participants felt comfortable enough to contribute to the research agenda or to reject lines of questioning. For example, when Sarah disagreed with my approach she was confident enough to suggest it was a 'really bizarre question' (Sarah, A24).

### **4.3.3 Research Design**

The research design was based on the collaborative narrative approach developed by Arvay (2002, 2003). The collaborative narrative approach is a particularly relevant, reflexive strategy that seeks to elicit and expose the participant's stories, then collaboratively co-construct and analyse the narrative. The researcher empowers the researched by giving genuine voice to the participant, by amending the research agenda to include the interests and ideas of the participant, and by encouraging the participant to engage in their own reflexive project. As Finlay (2003a, p.14) highlights, the use of 'ironic deconstruction' strategies such as this helps to challenge the position of the researcher as the voice of authority and allows multiple voices and interpretations to be applied within the research. Importantly for the integrity of the research project, this encourages new understandings to be constructed by the dialectic that is created within a research relationship based on equality. As Chapter 2 highlighted this was a key aspiration of the research design. Arvay's (2002) collaborative narrative approach is a multi-stage process; the first two stages, the 'preliminary interview' and 'co-constructing the research interview', are data collection activities (p.164).

The 'preliminary interview' was conducted by telephone within the first few weeks of the participants' assignment to their teaching role. The aim of the preliminary interview was to set the context of the research and to remind the participants of their right to withdraw consent at any time. There were then two collaborative research interviews; the first conducted 1-2 months into their initial professional practice ( $t_1$ ), and a second 12-18 months into the professional practice ( $t_2$ ). Each interview was conducted using an interview schedule. The interview schedules for the preliminary interview and the collaborative interviews at  $t_1$  and  $t_2$  can be found at Appendix 4.

### **4.3.4 Research duration**

The duration of the data collection activities was determined through the consideration of a number of factors. The research aimed to explore changes in construing in beginning teachers enrolled on a professional education programme. As previously stated, the participants were likely to have completed their PGCE PCET programme within 18-20 months and therefore an upper limit for data collection was set at 18 months from the commencement of the programme. Whilst the first interview was conducted within a few weeks of the participants beginning their professional practice, it was assessed that the second should be conducted a minimum of 12 months from the first interview to allow sufficient time for changes in construing to take place. This is supported by Rogers (1967) who suggests that changes in construing can be observed within a 12-18 month period - it

should be noted however, that this is far from an exact science and Rogers (1967) was referring to changes resulting from therapy. Nevertheless, this provided a framework for the timing of the interviews that was also achievable for an individual, part-time researcher. The research design is summarised in Figure 2 below.

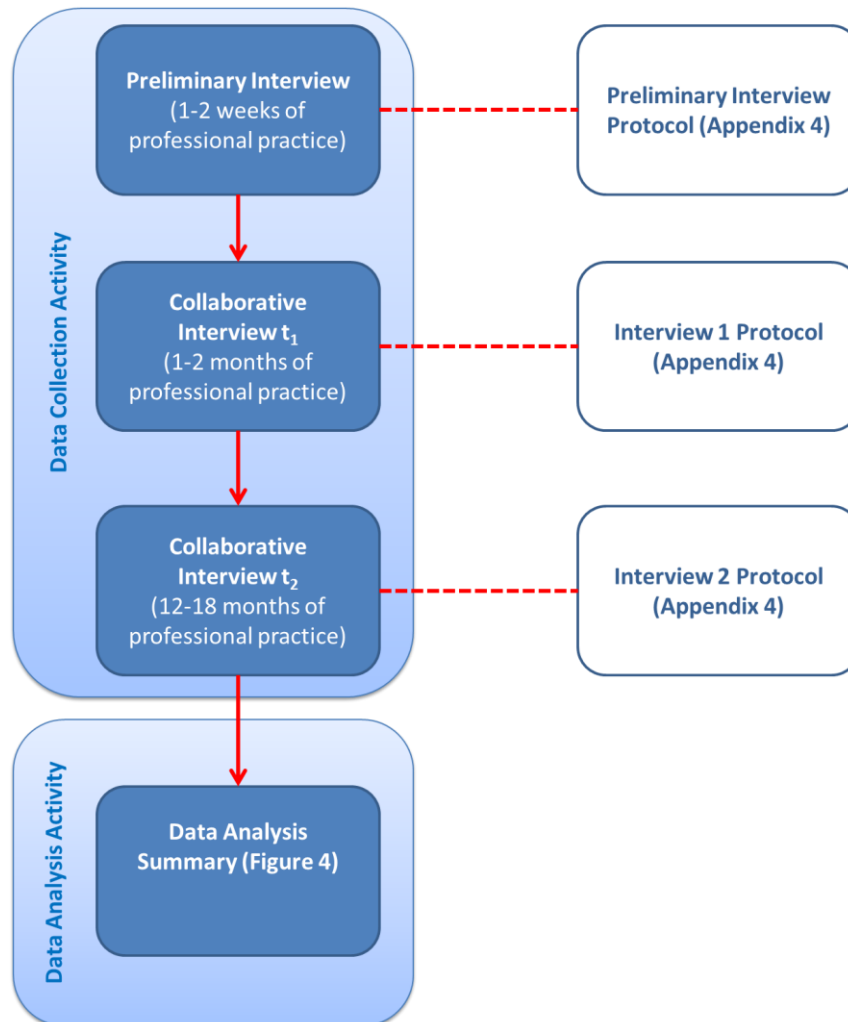


Figure 2 - Research Design Summary

#### 4.3.5 Data Collection Methods

I am keen to make a distinction here between the research methodology or strategy, which we have established is that of a multiple-case study, and the data collection methods used to collect a data set for analysis. Stake (1995) suggests that most case study reports present both coded data and direct interpretation, but one or the other tends to bear the 'conceptual load'. When the study is complete, he asks, will our assertions be based on 'frequencies of contingent happenings or narrative descriptions; will the readers be more content with an objective tally of incidents or a subjective description of proceedings to reveal the true nature of the case?' (p.29). As I have suggested previously, I maintain that only descriptive

interpretation is capable of representing the complexities of this case and illuminating the links between communities of practice and personal construct systems and therefore, even though I utilised a mixed methods approach, it is mainly the qualitative data that has shouldered what Stake describes (1995) as the 'conceptual load' (p.29). My data collection methods were designed to work both individually, to respond to each of the four research sub-questions, and together to provide a measure of triangulation. Specifically the study utilised: Interviews, Repertory Grid Technique, Trajectory Targets, and a Questionnaire with the research participants to provide a data set for analysis.

**Interview.** Stake (1995) suggests that we use interviews when 'much of what we cannot observe for ourselves has been, or is, observed by others' (p.64). Indeed he suggests that the principal use of the case study methodology is to obtain the descriptions and interpretations of others. Any study must be able to uncover and depict the multiple views of the case and, in this research study the interview process could be described as the 'runway' leading to these multiple realities. Chong (1993) highlights that:

'One of the advantages of the in-depth interview over the mass survey is that it records more fully how subjects arrive at their opinions. While we cannot actually observe the underlying mental process that gives rise to their responses, we can witness many of its outward manifestations. The way subjects ramble, hesitate, stumble and meander as they formulate their answers tips us off to how they are thinking and reasoning through [political] issues' (p.869).

This research was particularly interested in the unique experiences, comments and stories of the participants. Stories are particularly important in case studies because they present a personification and a patterning of events around the themes or figures of significance to the storyteller. Indeed, story as a way of knowing captures perfectly the richness and diversity of human action. Story, according to Carter (1993) presents the reader of the case study with an opportunity to 'develop and construct for themselves the coherence, causal connections, and meanings or themes of the story' (p.6). Additionally, Carter (1993) highlights that stories are told in the context of action or behaviour and therefore seem especially appropriate in the study of teaching and teacher education. Carter (1993) comments:

'...teaching is intentional actions in situations and the core knowledge teachers have of teaching comes from their practice i.e. from taking actions as teachers in the classroom. Teachers knowledge is, in other words, event structured, and therefore would seem to provide special access to that knowledge. '...the stories we live by are not, of course, purely private inventions, we build them from the information provided by the experience and from

the inventory of stories or pre-packaged expectations and ways of interpreting supplied by our culture' (p.7).

Carter goes on to explicitly link story telling with the interpretation and reinterpretation of events and the construction of causal patterns and suggests that narrative thinking is at the centre of a constructive process. To understand thinking then, Carter (1993) contends, 'it is necessary to find the story that structures an individual's model or theory of events' (p.7). Carter (1993) adds:

'...by recording what events are storied by novices, especially over time, it should be possible to gain insights into what they know, how their knowledge is organised, and how their knowledge changes with additional experiences of watching and doing teaching' (p.7).

We have already discussed the problematic nature of adopting a deterministic approach to the relationship between the community of practice and the individual's construct system. Gerring (2006) highlights that this is typical of case study research where these multiple links cannot be tested in a rigorous fashion. Usually, Gerring (2006) suggests 'the author is forced to reconstruct a plausible account of the basis of counterfactual comparison' (p.182). The case study therefore utilised semi-structured interviews that drew on the participant's experiences of working within the community of practice through story and narrative, particularly focusing on issues of identity, trajectory and personal development. As previously described, two interviews were conducted at points during the participant's initial professional practice ( $t_1$  and  $t_2$ ). Each interview directly addressed the first (What do beginning teachers believe influences the development of their constructs?) and the third research sub-questions (To what extent do the construction systems of beginning teachers tend towards the construction system of the Community of Practice following a 12 - 18 month period of initial professional practice?), and acted more generally as the principal data collection method.

**Repertory Grid Technique.** A Repertory Grid is used to elicit an individual's constructs about a particular topic. Jankowicz (2004) suggests that it is simply a form of structured interviewing that arrives at a precise description uncontaminated by the interviewer's own perspectives or opinions. More importantly Jankowicz (2004) argues that Repertory Grids are:

'...a very useful device, that allows you to build bridges between qualitative and quantitative research techniques. The qualitative material is expressed and analysed in a non-woolly, demonstrably reliable way, while the quantitative information is obtained which stays true to, and precisely conveys, a person's personally intended meaning' (p.15).

As a data collection method, Repertory Grids were utilised in the case study to explore the extent to which the construing of the participants had changed over time. The Repertory Grids were elicited as part of the interview process at  $t_1$  and  $t_2$ . The grids returned both qualitative and quantitative data, and this data was used to directly address the second research sub-question (How does the construing of beginning teachers change over a 12-18 month period of initial professional practice?) and, whilst triangulating with the interview data, also shouldered some of what I have previously described as the conceptual load.

The 10 elements used within the Repertory Grid design were pre-supplied. The participants were given a range of 6 'role titles' which were selected as elements that represented familiar and influential figures from within the classroom and workplace environment. These included: MY MENTOR, MY COLLEAGUES, THE COMMUNITY OF PRACTICE, MY PEER GROUP, MY PREVIOUS TEACHERS, and A COMPETENT TEACHER. An additional 4 elements: MYSELF, MY FUTURE SELF, THE TEACHER I WOULD FEAR TO BE, and THE TEACHER I NEED TO BE TO PASS THE COURSE were provided as useful reference points for the analysis of the participants' construing, particularly in respect of how they construed themselves in relation to others. At the beginning of the interviews at  $t_1$  and  $t_2$  each of the 10 elements were discussed, and the participant subsequently ascribed individuals or groups to the elements. In the case of the element THE COMMUNITY OF PRACTICE, the participant was provided with a definition to help them understand the context which the term was being used – this definition is provided at Appendix 5. It should be noted that the researcher did not seek to influence how the participant ascribed these role titles but rather facilitated the thinking of the participants in order to expedite the Repertory Grid interview. The design of the Repertory Grid, including the pre-supplied elements, was piloted prior to the first interviews at  $t_1$  and the participants of the pilot activities validated the 6 role titles as familiar figures that they were able to relate to and readily identify in their own practice.

During the Repertory Grid interview up to 10 constructs were elicited from the participants using the triadic elicitation method. Although there are a number of triadic methods the most influential is the 'minimum context' form of elicitation (Bell, 2005, p.69) which was used for this study. Using this approach, the participant is presented with groups of 3 elements and asked to determine in what way 2 of the elements are the same (resulting in the emergent pole of the construct) and different from the third (resulting in the implicit pole of the construct). During this elicitation process, a focus statement was used to help the participant situate their construing. This focus statement read:

*...in terms of the knowledge, skills, attitudes and qualities of a good teacher.*

(e.g., the research might ask “...in terms of the knowledge, skills, attitudes and qualities of a good teacher, can you tell me how two of the elements are the same, and different from the third”)

Each of the 10 elements were then scored or rated against the constructs elicited. During the pilot study it was found that a Repertory Grid scoring system of 1-5 failed to provide enough distinction between the elements and so this was extended to 1-7 for the main study. This appeared to provide the participants with a more appropriate level of granularity. Jankowicz (2004) suggests that using anything beyond a 7-point scale is probably unnecessary as the participant would be asked to make finer distinctions than they are able to apply consistently throughout the grid. The participants were therefore asked to rate each element with a score of between 1 and 7. The lower the score the more that the element tended towards the emergent pole, the higher the score the more that the element tended towards the implicit pole.

Once all the elements were rated for all the constructs the participant was then asked to indicate whether each construct was concerned with the knowledge, skills, attitudes or qualities of a teacher (or a combination of these). Whilst this facilitated an assessment of the areas that appeared to dominate the participant’s construing it was quickly identified that a high concentration in one particular area did not necessarily infer importance and so the participant was also asked to rate their constructs in order of importance from the most important (1) to the least important (10). These ratings are shown and discussed in Chapters 5 – 9.

**Trajectory Target Analysis.** Trajectory Target interviews are used to gain a verbal and graphical representation of the participant’s viewpoint on their position within the community of practice and their trajectory in relation to it.

Whilst there is no direct reference to the use of this technique, there is evidence of researchers utilising a range of alternative construing methods, including graphical techniques, to inform their understanding of a particular phenomenon (Denicolo 2005). Cabaroglu and Denicolo (2008), for instance, utilise a graphical technique which they refer to as ‘Snake Interviews’ to develop their understanding of how critical incidents contribute to the formation of constructs. Cabaroglu and Denicolo (2008) suggest that this technique is capable of elaborating issues that arise from interviews, facilitating the participants’ expression of their beliefs and attitudes, and contributing to Yin’s (2009) ‘Construct Validity’ (p.42). Cabaroglu and Denicolo (2008) comment that:

'...above all, they [Snake Interviews] enable the participants to use their own words and indicate issues which are personally important, reducing interviewer bias and producing highly authentic and rich data' (p.31).

During the Trajectory Target exercise, the participants were provided with a sheet of paper on which was printed four concentric circles around a central core (making the 'target' configuration). The participants were asked to indicate on the paper what they believed to be their current position and their trajectory, or pathway, with respect to their chosen community of practice. The participants were told that they could interpret the target in any way they wished and could draw or make notes on the paper in any way that allowed them to illustrate and express their views.

Like Snake Interviews, the Trajectory Targets were employed to augment my understanding of the research participants and their views. The Trajectory Target interview was utilised to illustrate the participant's views on their positions and trajectories within the communities of practice, and to depict how these views might change over time (the fourth research sub-question). During the comparative analysis of the Trajectory Targets a range of aspects were explored and discussed with the participants including relative changes in position, trajectory and the way in which the participants chose to illustrate these. The Trajectory Targets were analysed in concert with data gathered from interviews and utilised to provide triangulation with the Repertory Grid data. The Trajectory Targets were elicited as part of the interview process at  $t_1$  and  $t_2$  and can be seen at the end of Chapters 5 – 9.

Although I have previously stated that the Repertory Grid data will bear some of the conceptual load, Bannister (1985) reminds us of its potential limitations and that, when viewed through an interpretive lens, Repertory Grids appear to be something akin to a:

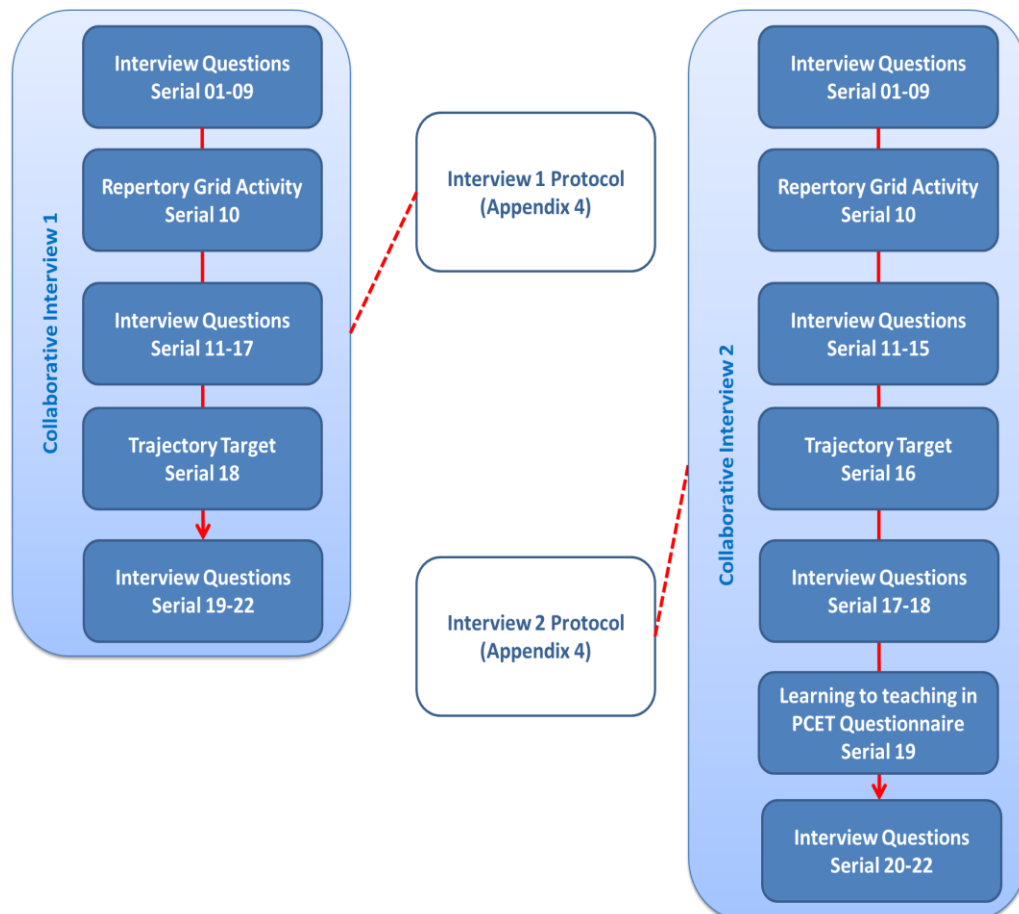
'...Frankenstein's monster which has rushed away on a statistical and experimental rampage of its own, leaving construct theory negated, stranded high and dry, far behind' (p.xii).

I feel therefore that, because of the study's focus on understanding and illumination rather than on explanation, it is important to balance the statistical nature and predisposition of the Repertory Grid with a more qualitatively based method such as the Trajectory Target.

**Questionnaire.** In the final activity undertaken during the second interview at  $t_2$ , the participants completed a questionnaire on which they indicated what they believed to have been the most influential factors in their professional learning and development as a teacher to date. The questionnaire (at Appendix 6) was designed utilising the format developed by Knight et al (2006) in their analysis of the professional learning of teachers in higher



education. The aim of the questionnaire was to provide a small amount of quantitative data that could be used to validate and triangulate with the qualitative interview data. The questionnaire also directly addressed the first research question (What do beginning teachers believe influences the development of their constructs?).



**Figure 3 - Data Collection Summary**

Figure 3 illustrates how the data collection methods described above were administered during the collaborative interviews at  $t_1$  and  $t_2$ . The protocols for each interview can be seen at Appendix 4.

#### **4.3.6 Triangulation of Data**

In the search for meaning we must ensure that we follow protocols which have a foundation based on more than simple intuition or good intentions. In qualitative research these protocols are called triangulation and these underpin the construct validity of the case study. In qualitative research generally, but in case studies in particular, triangulation protocols have become as much as a search for alternative and competing interpretations as the confirmation of a single meaning. This research adopted the following triangulation

protocols proposed by Stake (1995): 'data source triangulation', 'theory triangulation', and 'methodological triangulation' (pp.112-115).

**Data Source Triangulation.** Data source triangulation aims to see if the phenomenon or case remains the same at different times and spaces and, as my research is longitudinal in nature, it adopted what I will refer to as a temporal model of triangulation. Temporal triangulation utilised a slightly different focus, developing on that proposed by Stake (1995), but still sought to confirm that the data carries the same meaning when found in different circumstances. Specifically, temporal triangulation will aim to support the research hypothesis by showing that the participant's construct system remains changeable over time, whereas the participant's view on the cause of that change remains broadly the same. Where this is shown to be the case, temporal triangulation serves to support my interpretation.

**Theory Triangulation.** Theory triangulation utilised other researchers to explore the data for alternative theoretical viewpoints. In particular, other researchers were used to challenge my interpretations and assertions. Allied to this, the participants in the study, through the collaborative narrative approach, also co-constructed the research narrative and triangulated the accuracy of observations and interpretations in a process Stake (1995) calls 'member checking' (p.115).

**Methodological Triangulation.** Finally, the study will adopt the most recognised of the triangulation approaches; methodological triangulation. Methodological triangulation uses a mixed method approach to increase confidence in a particular interpretation, and question the utility of competing interpretations. In this study I utilised interviews, Repertory Grids, and Trajectory Targets to reinforce confidence that my interpretation, whilst not the only interpretation, is the strongest given the data.

#### **4.3.7 Data Analysis**

Stake (1995) correctly contends that 'good research is not about good methods as much as it is about good thinking' (p.19). Therefore, effective data analysis is a vital part of any case study. Stake (1995) further suggests that there are two main strategies that researchers use to develop new meanings; 'categorical aggregation of instances', and 'directed interpretation' (p.19). Both of these strategies may be successfully utilised during case study analysis. The quantitative side of the researcher looks for the emergence of meaning from repetition of phenomena, the qualitative side looks for the emergence of meaning in a single instance. In a case study, the search for meaning is often the search for patterns and contradictions; for consistency or incongruity within a set of conditions. Often these patterns may be known or

suspected in advance and will serve as a template for subsequent analysis, but equally, patterns will also emerge from analysis. Utilising the collaborative narrative approach, and co-constructing the research narrative with the participant, helped to reduce my susceptibility to seeing only those patterns which I thought (or hoped) existed.

Robson (2002) offers a data analysis strategy which, although intended for use in ethnographic studies, appears to be equally suitable for case study analysis, and is wholly compatible with an interpretive paradigm. Robson's (2002) strategy is explanatory and consists of three main tasks: 'thinking', 'developing categories', and 'progressive focussing' (pp.486-488). Thinking consists of getting to know the data and considering what it might be telling you. Developing categories is the process by which some order is brought to the data. In the early stages of the research, characterised by the open phase, these categories, and their underpinning theoretical concepts, are likely to be imprecise and poorly defined but, through an iterative process of categorisation and re-categorisation, can be steadily refined until a precise representation of the phenomenon can be modelled. In grounded theory, these categories are driven by the data in an inductive process, however, in this study, the data, the existing theory, and the research hypotheses all played an equal part in category development. Finally, as we have previously discussed, progressive focusing maintains, clarifies or develops the initial theoretical position represented by the research questions and hypotheses. Robson (2002) additionally proposes some specific methods of realising these three tasks: 'looking for patterns of thought, action and behaviour'; 'looking for key cultural and focal events'; and 'triangulation' (p.488).

In order to assist in this thinking, categorising and focusing process, the research utilised a Computer Aided Qualitative Data Analysis System (CAQDAS) (NVIVO 10) to assist in developing themes and categories, and links between data and theory. Rep Grid IV software was also used to analyse the Repertory Grid data. Using NVIVO, the data was subjected to thematic analysis (Gibbs, 2002) which was steadily refined and progressively focused, and supported by the analysis of the Repertory Grid data. The research themes developed as a result of this analysis are presented in Chapter 10.

The research data was analysed both during the data collection phase, as part of the collaborative narrative approach, and on completion of the data collection activities. The data analysis stages are as follows:

### **Stage 1 – Collaborative Analysis 1**

1.1 - Following the initial data collection activity at  $t_1$  the interview audio was transcribed and Repertory Grid data was entered into the RepGrid IV software. This 'transcription stage'

(Arvay, 2002, p.164) of the raw data was the key to exposing the story fragments and so the transcript was broken into stanza and strophes (Gee, 1991) which helped to identify the 'narrative episodes' (p.168). These later stages of Arvay's (2002) collaborative narrative approach are critical to the thinking and developing categories process. A transcript extract can be seen at Appendix 7.

1.2 - Following the transcription of the interview audio and the identification of the 'narrative episodes' a collaborative reading grid was developed. The researcher and the participant then conducted separate interpretive readings of the transcript. As Arvay (2002) highlights, over four discrete instances, the researcher and participant engaged with the text for 'content', 'the self of the narrator', 'the research question' and 'relations of power and culture' (p.169). The RepGrid IV software was used to generate two views of the data collected during the interview at  $t_1$ . The first view allowed for two-way cluster analysis of the elements and constructs. By presenting the data as a set of linked dendrograms<sup>9</sup> it was possible to understand how the participant viewed the relationships between the elements and between the constructs. This allowed the researcher to understand, for example, which of the role titles (elements) the participant viewed as being similar. The second view allowed for Principal Component Analysis (PCA) of the data. This view was critical to understanding how the participant construed the relationships between the elements and the constructs. In particular, the PCA view was able to show the range construct poles the participant associated with each role title. The Cluster Analysis and PCA graphs for each participant are discussed at length in Chapters 5-9 and can be seen at Annexes A – E.

Following the individual readings and analysis, the researcher and participant convened in what Arvay (2002) describes as the 'interpretive interview' (p.171) to discuss their interpretation of the four readings and to listen and respond to each other's analysis. A collaborative reading grid extract can be seen at Appendix 8 and shows the same section of the collaborative reading grid analysed by the participant and the researcher. The content of the readings, such as why a particular story was used, how it was articulated, and how it might answer the research questions, as well as the individual interpretation of the data was discussed. In the majority of cases the participant and researcher took turns to discuss what they had written on each page of the collaborative reading grid. Each interpretive interview was recorded and was used in the development of the subsequent narratives.

During this interpretive interview, the Cluster Analysis and PCA graphs were also collaboratively analysed, discussed, and where appropriate linked to the emerging narratives. The participant was also asked to further group (and name) the construct

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<sup>9</sup> A dendrogram is a 'tree' diagram used to illustrate an arrangement of hierarchical clusters

dendrograms within the Cluster Analysis graph to develop what might be considered a set of super-ordinate constructs. The individual participants' construing was an important part of the study as it was used as a mechanism to triangulate with the other data sources – this is why pre-supplied constructs were not used. However, it was unlikely that the same set of constructs would be elicited during the  $t_1$  and  $t_2$  interviews and therefore changes in the individual's construing over the duration of the research would be difficult to reliably track and assess. As a compromise, the grouping of the individual constructs into sets of superordinate constructs, named by the participant, produced something that could be more readily tracked between interviews. These superordinate construct groups are discussed in Chapters 5-9.

1.3 - The transcripts, collaborative reading grids, audio from the interpretive interview, Trajectory Targets, Cluster Analysis and PCA graphs were all then used to develop an initial narrative and, using NVIVO as a means of linking the data sets, an initial set of themes or categories were developed. The basic data elements of the narrative are what I shall term the story fragments. The story fragments provided the backbone of the case study's narrative formed the basis for the categorisation of the data, as well as the units of analysis against which the data collected by the Repertory Grid and Trajectory Targets were evaluated. However, whilst the story fragments provided both the narrative and the basic category structure, the methods were designed to be mutually supporting (or indeed mutually opposing). In effect, at any one time, the data collected from each of the methods should have been 'telling the same story'. Where the data converged and triangulated in this fashion, the interpretation that this infers gained strength. Where the data failed to provide such clarity, or indeed proved to be contradictory, then alternative interpretations were generated and, where possible, tested.

## **Stage 2 – Collaborative Analysis 2**

Following the second data collection activity at  $t_2$ , the stage 2 activities (2.1 - 2.3) essentially repeated the activities in stage 1 with the exception that rather than developing an initial set of themes and categories in NVIVO, the initial thematic analysis was focussed and developed by the second set of data during its analysis. A further narrative was also developed on the basis of the second interview.

## **Stage 3 – Development of Case Studies and Data Categories**

During stage 3, the final writing and analysis phase, the co-constructed narratives from stage 1 and 2 were used as the basis for developing what McCormack (2004) describes as a 'personal experience narrative' (p.227) which represents a participant's experience across

multiple points in time. McCormack (2004) highlights that the temporal ordering of the interpretive stories constructed for each interview results in a personal experience narrative that is thus 'composed of nested stories' (p.230). During the construction of these personal experience narratives the research data was anonymised to protect the participants' confidentiality. The names of the participants used in the case studies are therefore fictitious and aspects of the narrative detail, such as places or names of colleagues, have been removed so that the identity of the participants cannot be identified through the narrative. Once these personal narratives or case studies were completed they were first reviewed by the participants to ensure not just the accuracy of the data, but also to ensure that the participants felt that their voice was sufficiently prominent within the case studies and that their views were properly articulated. The case studies were subsequently peer reviewed to ensure that the themes and categories developed and described in the narratives were fully supported by the data. Finally, the themes and categories were refined on the basis of the feedback and linked where possible to theories and ideas from the review of literature. The final NVIVO categories can be seen at Appendix 9 and are discussed in detail in Chapter 10. Figure 4 illustrates the data analysis procedure described above.

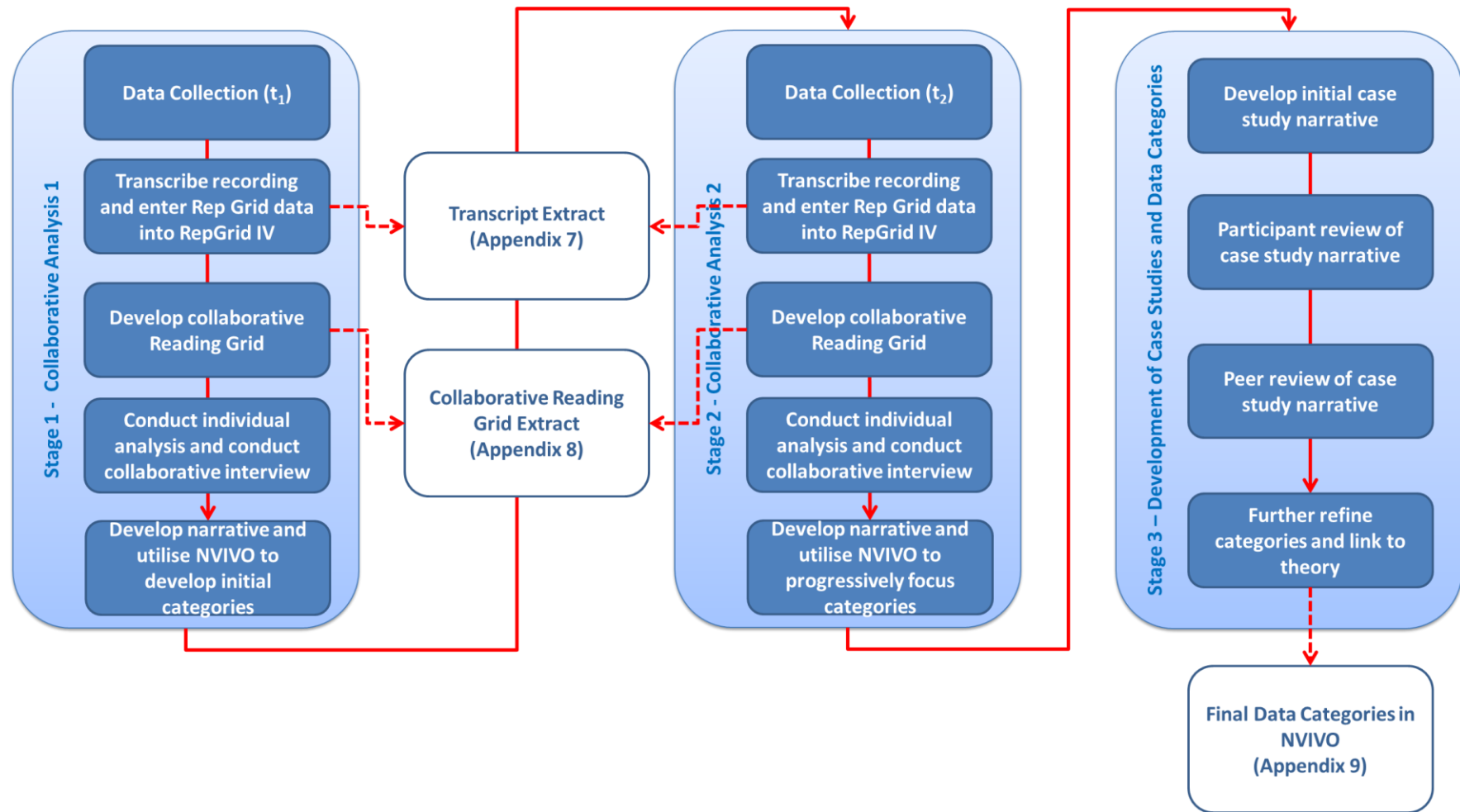


Figure 4 - Data Analysis Summary

## **4.4 Practical Issues**

### **4.4.1 Data collection**

Each interview followed a semi-structured interview protocol (Appendix 4) and was conducted at a location chosen by the participant. Generally, the participants chose to meet in their workplace but several interviews were conducted at their home. In reality, the collection of data was more problematic than planned and, in particular, gaining appointments with the participants was a real challenge. This issue was amplified when several participants were posted abroad for short periods during the data collection phase. This meant that the collaborative analysis interview was often conducted 2-3 months after the data collection interview.

All the participants appeared to find the Repertory Grid exercise challenging and preferred the more free-flowing and narrative-based approach of the interview or the graphical approach of the Trajectory Target exercise. Although the intention was to elicit 10 constructs during each interview, some participants found the process so demanding that they were unable to provide this number.

The participants appeared to enjoy the Trajectory Target exercise and were highly animated as they illustrated their thoughts. However, I did not anticipate the range of different interpretations of the Trajectory Target and whilst this added extra richness to the data set, it also added an additional layer of complexity during the analysis.

Each interview took about 90 minutes to complete. Following the interview I recorded my thoughts and observations about the interview as field notes which I utilised during the data analysis phase.

### **4.4.2 Data transcription**

The data transcription was a major undertaking. With the permission of the participant, each interview was recorded using a digital recording device. The recording quality was generally excellent but the amount of data collected meant that each interview took between 10-12 hours to transcribe.

Once the data had been captured the transcript was arranged so that the story elements were placed into stanzas - this helped to identify different parts of the narrative. As much of the detail as possible, (pauses, noises, laughing etc.), was retained to preserve the authenticity of the data. Once the data had been arranged and numbered, it was tabularised to form the interpretive reading grid for Arvay's (2002) four readings.



### **4.4.3 Data analysis**

The analysis of the data was a lengthy exercise that began with individual and then collaborative analysis of the interpretive reading grid. This was a fascinating process that resulted in a co-construction of the participant's experience. Interestingly, the lengthy gap between the initial data collection interview and the later collaborative analysis interview meant that the participants were able to more effectively distance themselves from the transcript and provide an almost 'third party' analysis of the data. I was often struck by the participants' ability to critically and honestly analyse their own transcripts. I also became aware of the burden that this collaborative analysis approach placed on the participants.

This analysis was then developed into an initial written case study format. The Repertory Grid and Trajectory Target data was added and, again, this was shared with the participant. During this period, specialist advice was sought on how to use the Repertory Grid data most appropriately to support and illustrate the case studies. Once the participant case studies were complete, they were loaded into the NVIVO software and a thematic analysis was conducted. The NVIVO software proved an invaluable tool for managing and linking both the research data and the supporting literature. The themes identified within and across the cases were then grouped to provide the data structures illustrated in Chapter 10.

## **4.5 Summary**

This chapter has illustrated how the research questions, the reflexive approach described in Chapter 2, and the theoretical concepts described in Chapter 3 have all influenced the research approach and the selection and design of the data gathering methods. The next five Chapters (5-9) present the data gathered by the methods described in this chapter through the case studies of the research participants.

Each of the five case studies follows a similar structure. The interview and Repertory Grid data from the first interview are presented and accompanied by an initial interpretation. Following Jankowicz (2004), where Repertory Grid elements and constructs are discussed in the text, the elements have been capitalised and the constructs are shown in italics. This structure is repeated for the second interview. This arrangement has been utilised in an effort to prevent the participants' stories being lost within the overall research narrative. Each case study is completed by presenting and interpreting the Trajectory Target data. Chapter 10 then presents a discussion of the five case studies and, finally, Chapter 11 draws conclusions from this discussion.

The next Chapter therefore presents the first case study, Simon, and his views and experiences of being a beginning teacher.

## 5 CASE STUDY 1: SIMON

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### 5.1 Interview 1

During the collaborative analysis interview, both Simon and I noted that his construction of teaching during interview 1 was based primarily on a trait-based view of the teacher. Working with the transcript, Simon observed that he appeared quite firm and passionate in his belief in the importance of the *'inspirational factor'* in teaching (A12). I also detected through Simon's description of the learning process that his theorising about learning, and perhaps his practice, are underpinned by what Sfard (1998) describes as the 'acquisition' metaphor and what Fox (1983) would recognise as the 'transfer' metaphor.

*'If a subject inspires you, you learn it all the more readily and not only do you learn it but you retain it and it kind of, you know, it sinks beyond the frontal lobe doesn't it? And it kind of is absorbed into your long term memory and affects your long term perception and attitudes and becomes part of your long term knowledge which can then obviously disseminate to others'* (A13).

*'Yes, absolutely, you know the attitudes and qualities are the key to it but you can't take away the knowledge from it'* (A17).

*'You know, if you don't have the knowledge, you know [long pause], it's great having attitudes and qualities but if don't have the knowledge with which to merge it with then it almost becomes a bit useless'* (A18).

This emphasis on 'having' knowledge rather than 'doing' knowledge may go some way to explain Simon's insistence that subject matter knowledge is also the key to providing a positive educational experience and highlights that Simon is primarily adopting a 'simple' rather than 'developed' view of teaching (Fox, 1983).

At this early point in his teaching career, Simon's narrative suggested that he draws extensively on his previous experiences as a student when theorising about the nature of teaching and learning.

*'...it's just something that I guess I have received reinforcement of at various stages, you know, there were teachers when I was at school who just seemed so naturally good at what they did erm [pause] and it was hard to picture them doing anything else because they were so good at what they were doing erm [pause], you know. Likewise when I got to college, once again the best teachers seemed to have these natural qualities of teaching, again when*

*I was at University the best lecturers seemed to just have erm [pause] the knack for it so to speak' (A19).*

His narrative illustrated that formative experience with teachers and other role models and, to a lesser extent, the customs and methodologies associated with his subject specialism were key elements of Simon's construction of himself as a teacher.

*'...perhaps there was some formative influence from my mother because I think she perhaps has a similar opinion to myself, so perhaps, to a certain extent without me realising it, perhaps I have been influenced by her in that sense' (Line 415-418).*

*'You know a I really enjoyed my history degree and felt that when I was studying for my history degree and writing essays, like I was really researching something good, historical. I'm looking at various historical sources, looking at history books and so forth, I felt like I was discovering as I went along' (Line 287-293).*

This view is supported by Richardson (2003) who suggests that the pre-existing beliefs of teachers strongly affect what and how they learn and eventually how they approach classroom teaching. However, Simon's reflexive and insightful comment that questioned whether his narrative elements were chosen because they confirmed his own views, or because his views were genuinely shaped by the events he describes in his narrative, is an important consideration. It certainly suggests that, whilst the data is able to expose and illustrate a number of themes through a comparative analysis of Simon's narrative and constructs, it is insufficient to make strong claims regarding the extent to which the events he describes have shaped and influenced his construct system.

Through the Repertory Grid activity, Simon was able to articulate ten constructs about the knowledge, skills, attitudes and qualities of a good teacher. At the conclusion of the activity, Simon was asked to indicate which of these four aspects he believed his ten constructs were concerned with (accepting that each construct could be referring to more than one aspect). Figure 5 shows how Simon categorised his construing:

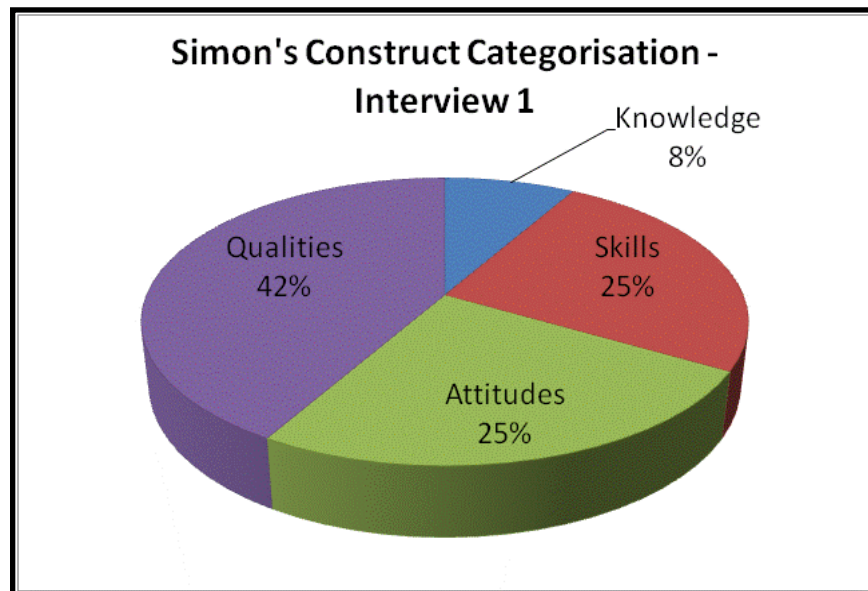


Figure 5 - Construct Categories - Simon Interview 1

That 67% of Simon's constructs were concerned with the attitudes and qualities of teachers is perhaps no surprise given his conception of teaching as being personality or trait-based. It seems likely that it is this trait-based model of teaching, centred as it is on the qualities and attitudes of the individual, is what facilitates Simon's view that the best teachers are born with some form of natural ability. That only one construct (8%) was concerned with subject knowledge, given Simon's narrative and his seeming preference for theorising about teaching and learning in a manner associated with the acquisition or transfer metaphor, was unanticipated.

Annex A (Figure 30) graphically shows the focus sorting, and hierarchical clustering, of Simon's construing. The element dendrogram shows that Simon closely associates MYSELF with MY MENTOR (>95%) and that he associates his conception of A COMPETENT TEACHER with MY PEER GROUP (>90%). Interestingly, Simon associates MY COLLEAGUES with THE TEACHER I WOULD FEAR TO BE (>85%). These six elements intersect with THE COMMUNITY OF PRACTICE (>85%) and THE TEACHER I NEED TO BE PASS THE [PGCE] COURSE (>80%) demonstrating a generally close association between these eight elements. Simon's conception of MY FUTURE SELF and his perception of MY PREVIOUS TEACHERS can be seen as the least associated elements. Whilst this data does not in itself triangulate with or support Simon's narrative by providing a measurement of the influence that previous teachers have had on Simon's constructs, it does demonstrate that Simon loosely associates the teacher he would like to be with his previous teachers.

The construct dendrogram is similarly arranged into a number of small clusters:

- Cluster 1 - a two construct cluster containing *has passion and energy for the subject vs forced to teach the subject knowledge without drive* and *has good classroom management - discipline, questions technique vs does not have authority, on the back foot* are closely associated (>90%),
- Cluster 2 - a two construct cluster comprising *establishes rapport on a personal & class level vs a teacher the students dread* and *possesses subject knowledge which instils confidence in the teacher vs teaching a subject they know little about, one page ahead of the students* associated at 95%.
- Cluster 3 - a three construct cluster *approachable vs aloof, distant, cold; places students first vs puts the course content first, learning for leaning sake* and *relaxed attitude to teaching vs learning is drab, grey, examination focused, works to the letter not the spirit of examinations* at 95%.

The three remaining constructs appeared to be less closely associated with these three construct groups. The associated construct pairs in clusters 1 and 2 are interesting and provide a window into Simon's construction of and theorising about teaching. In construct cluster 1 for instance, Simon's data may suggest he believes that a passion and energy for the subject will provide the authority through which he is able to manage the classroom environment. Similarly, construct pair 2 may suggest that Simon believes that possessing subject knowledge instils confidence which allows him to develop rapport at both the individual and class level.

During the analysis of the Repertory Grid data, Simon was asked to name these groups of constructs in an effort to elicit what might be considered a set of super-ordinate constructs or construct themes. Simon stated that construct cluster 1 describes **basic teaching skills**, construct cluster 2 describes **the person that the teacher is**, and construct cluster 3 describes **the teacher's attitude to students**. Finally, Simon was asked to group and name the three remaining constructs which he suggested described being concerned with **teaching method**. These superordinate or construct themes may help to further demonstrate that Simon's constructs about teaching and learning are centred predominately on a trait-based view of the teacher. For example, themes 2 and 3 describe teacher qualities and attitudes respectively. Whilst Simon named theme 1 'basic teaching skills', the constructs reveal that this is actually underpinned by passion and energy for the subject, both of which could be categorised either as an attitude or a quality. Finally, whilst theme 4 comprises three loosely connected constructs named 'teaching method', Simon actually categorised these three constructs as being 50% skill-based and 50% attitude/quality-based.

Annex A (Figure 31) shows Simon's data arranged as a Principal Component Analysis (PCA) graph. The two components plotted in the graph account for 79.5% of the variance in the data (54.5% + 25.0%) indicating that one plot is sufficiently accurate for analysis (Jankowicz, 2004). The graph shows that eight of the ten constructs are grouped around the first component. Of the two remaining constructs, one (*disorganised, incompetent in teaching administration vs effective organisation of teaching administration & centre management*) is located close to the second component. The final construct (*forgets the wider Army role of the ETS vs places the role with the Army context*) appears to sit mid-way between the two components. It should be noted that in this view the construct *flexible and fluid vs lacks flexibility, sticks doggedly to planning* sits comfortably in the first component group, even though it was placed in the cluster of seemingly loosely related constructs that made up cluster 4 of the construct dendrograms analysed previously.

Analysis of the eight constructs that are grouped around the first component suggest that this component reflects constructs that largely describe personal attributes. Whilst this group includes the construct poles *has good classroom management* and *possesses subject knowledge* it may be seen as a reflection of Simon's trait-based view of the teacher. The second component is less useful in validating Simon's narrative and appears to be centred on effective organisation and management. This component may be linked, albeit loosely, with Simon's construct theme **teaching method** because one of its construct poles *disorganised, incompetent in teaching administration* lies on the second component.

The locations of the elements with respect to the constructs are also worth some discussion, particularly with respect to the position of the element MY PREVIOUS TEACHERS. The PCA graph shows that this is the only element located in the top right quadrant. The construct poles located in this quadrant suggest that, to a greater or lesser extent, Simon views his previous teachers as: *possessing subject knowledge; being able to establish rapport on a personal and a class level; having passion and energy for the subject; having good classroom management*; and, notably, *being disorganised and incompetent in teaching administration*. If Simon's experience of his previous teachers is as influential on his self-construction as his narrative suggests, then perhaps this may explain why Simon places a premium on personal qualities whilst dismissing what he sees as mere administrative tasks and processes that are not connected to the 'real' business of teaching.

**Conclusion:** Simon's narrative and Repertory Grid data illustrates that, at this point, the most likely influences on his constructs about teaching and learning are his formative experiences as a school student, the customs and methodologies associated with his subject specialism, the practices of his faculty, and the behaviour of his role models, coupled with his

own teaching practice. I would contend that there was little evidence at this point to suggest that Simon's community of practice had been influential in any significant respect, with his colleagues and peers being cited only briefly in his narrative with comments such as:

*'I have also found it quite insightful, obviously, observing other, more experienced instructors'* (Line 273-274).

*'...and it's also been quite good being observed as well by, you know, our teaching fellowship observations and subject specialist observations. The feedback from those has been very good erm [pause], you know, both in terms of positive criticism and, you know, learning for the future'* (Stanza 73).

Equally, given the comments in his narrative, it would be easy to suggest that Simon's PGCE course had been limited in its ability to influence his construct system. However, Simon had chosen to compartmentalise the PGCE seeing tasks such as lesson planning or essay writing as part of the course syllabus, whereas teaching practice, which Simon appeared to value highly, was either placed outside the syllabus or was seen to be unconnected to the course.

Simon had also developed an identity for himself in which he 'plays' the character of a 'rogue'.

*'I fear that I might be a little bit of a rogue element'* (A25).

*'Looking at my peers they do a lot more planning and consideration before they go into a class and their focus, in my opinion, is more on the lesson plan, on the scheme of work and erm [pause] they produce some quite scary amounts of paperwork and I find my own lesson plans and schemes of work are quite flimsy in comparison. When I'm preparing for the class my emphasis in terms of preparation is on the actual subject matter itself and then I just wade into the class and erm [pause], you know, I guess I rely a lot on my personal charisma and enthusiasm and naturally hope to facilitate the class in that manner'* (Stanza 125-127).

This character may be more than a simple excuse for not engaging with certain aspects of the curriculum or indeed a strategy to cope with the pressures of the course. This identity may be necessary to protect Simon's construct system, particularly his superordinate constructs, from a conception of teaching and learning generated from within his professional education programme course that may be in direct conflict with his own. The potential of a comprehensive change to Simon's core structures and the awareness that he is being confronted with events which may lie outside the range of convenience of his current

constructs on teaching and learning may be felt as THREAT, FEAR, ANXIETY and GUILT<sup>10</sup> (Banister & Fransella, 1989). The adoption of this 'rogue' character therefore may serve to legitimise the continual use of a construct system despite the fact that, through invalidating evidence, Simon himself may have recognised the limitations of his system.

Table 1 shows how Simon ranked his initial constructs in order of importance. It is difficult to identify any particular pattern within Simon's ratings. There is no particular grouping of his construct themes and whilst his more favoured constructs all have a 'teacher qualities' (Q) competent this has to be placed within the context of construing which is generally biased towards teacher attitudes and qualities. One notable observation is that Simon's two most important constructs are subject-related confirming the significance that Simon places on his specialism.

**Table 1 - Construct Ranking – Simon Interview 1**

<b>Construct</b>	<b>Cluster</b>	<b>KSAQ</b>	<b>Rating 1-10</b>
<b>Has passion and energy for the subject vs Forced to teach the subject knowledge without drive</b>	basic teaching skills	Q	1
<b>Possesses subject knowledge which instils confidence in the teacher vs Teaching a subject they know little about. 1 page ahead of the students</b>	person the teacher is	K/Q	2
<b>Lacks flexibility, sticks doggedly to planning vs Flexible and fluid. Mentally sharp to 'go with flow' but keep to the learning objectives</b>	teaching method	S/Q	3
<b>Places the role within the Army context vs Forgets the wider Army role of the ETS</b>	teaching method	A	4
<b>Places the soldier/student first vs Puts the course content first. Learning for learning sake</b>	teacher's attitude to students	A	5
<b>Approachable vs Aloof, distant, cold</b>	teacher's attitude to students	Q	6
<b>Establishes a rapport on a personal and class level vs A teacher that students dread</b>	person the teacher is	Q	7
<b>Has good classroom management - discipline, question technique etc vs Does not have authority, on the 'back foot'</b>	basic teaching skills	S	8
<b>Relaxed attitude to teaching vs Learning is drab, grey. Examination focused. Works to letter not spirit of exams</b>	teacher's attitude to students	A	9
<b>Effective organisation of teaching administration and centre management vs Disorganised, incompetent in teaching administration</b>	teaching method	S	10

<sup>10</sup> See technical glossary (p.236) for full definitions of these terms



## 5.2 Interview 2

Just as he did in his first interview, Simon persisted in drawing heavily on his previous experience as a student when theorising about teaching and learning. The theme of the second interview appeared to be Simon's continuing struggle to reconcile two competing views of teaching and learning and Simon's narrative displayed examples of both a teacher-focused, acquisition/transfer metaphor-based view and a student-focused, participative and developed view of teaching and learning.

*'...I initially entered into teaching giving something of a performance, a theatrical performance, you know so there was a lot of 'wow factor' but it was also kind of a lot of me doing my thing at the front of the classroom and hopefully the students learning just, you know, by being there through osmosis and by my passion and enthusiasm kind of carrying them through, erm [pause]. I then began to kind of erm [pause] you know for use of like a reflective journal and that sort of thing and through the learning for you know the various academic theories regards learning in the classroom I have had to try and shift it more towards less teacher focused teaching and more student focused teaching in terms of the activities and that sort of stuff ...and I've found that, you know, there has now been some subjects, some topics, some areas of CLM which I teach very differently to how I previously did and I'm not sure that either way is right or wrong you know, they would suit different students differently, but I am aware that I have got a lot more options than just me 'giving it large' in front of the classroom' (Stanza 189-194).*

Simon noted the apparent conflict of views within the transcript between a teacher-focused view of teaching and learning where Simon felt that he must shoulder the responsibility using *'theatre'* (Stanza 174) and his later, more student-focused views. Simon reiterated that he remained influenced by the teaching he experienced as an undergraduate history student which he later described as *'passionate lecturing'*, and that he may default to this approach.

*'...I think I once expressed to you that, you know, my view of good teachers were, people like you know, some of the academics, you know these passionate lecturers' (A99).*

*'Erm [pause] but that's what they were 'lecturers' and so my initial teaching was very much that way inclined; passionate lecturing' (A100).*

Stanza 189-194 appears to summarise the teacher-focus versus student-focus conflict that Simon was experiencing. Despite Simon contending that he was *'aware that I have got a lot more options'* (Stanza 194), I wondered whether he was articulating this view for my benefit and was utilising what Clandinin & Connelly (1995) refer to as a cover story as a way of managing his dilemma. Indeed during the collaborative interview Simon suggested the reality

was that, when done well, passionate lecturing 'works'. Simon described the egotistical element of the teacher-centred approach commenting that focusing on the activity of the learners diminishes teachers' 'success'. Simon commented sarcastically '*...it's like the students are learning because of their own efforts and their own abilities and their own motivations to learn; and not because of my genius*' (collaborative interpretive interview conducted 20 Apr 12).

The narrative highlighted that working within the community of practice, particularly working closely with selected peers, had begun to move Simon's practice to a more participative, student-centred approach. As the narrative demonstrates, this is especially the case when Simon was able to observe a teaching strategy in action.

*'Erm [pause], I think [stutter] a lot of it has been kind of you know sharing ideas with my peers and that sort thing, you know so, I've seen some really good examples of teaching practice'* (A93).

*'Which err I've thought "oh that's really good" you know, "I'd like to use that"'* (Line 727-728).

However, there seems to be less evidence that this influence extends to Simon's construing which, as the narrative shows, remains dominated by a teacher-focused view. Simon seems more aware of this conflict in the second interview. Whilst he remains keen to demonstrate his non-conformity with the community, he is more willing to offer consolatory narratives about his changing practice. It is difficult to determine from this narrative alone whether Simon's change in practice is linked to a change in construing or whether it is offered as a cover story (Clandinin & Connelly, 1995), much like the development of Simon's 'rouge' identity, to be utilised as protection for his core constructs.

Like the first interview, Simon was able to articulate ten constructs about the knowledge, skills, attitudes and qualities of a good teacher. At the conclusion of the activity, Simon was asked to indicate which of these four aspects he believed each of his ten constructs were concerned with, accepting that each construct could be referring to more than one aspect. Figure 6 shows how Simon categorised his construing:

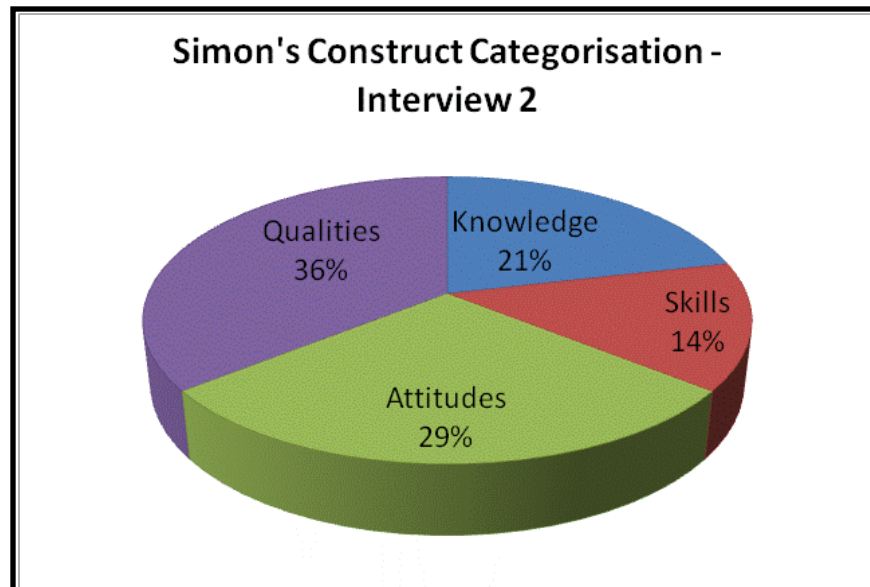


Figure 6 - Construct Categories - Simon Interview 2

Again, Simon's construing seemed to be dominated by a personality-based view of teaching with views about attitudes and qualities accounting for 65% of the constructs. However, as Table 2 illustrates, the distribution of the categories in the second Interview appears to be more even than in the first with the range dropping from 34% at Interview 1 (42%-8%) to 22% at Interview 2 (36%-14%) perhaps indicating a move towards a more balanced view of the teacher. The relative importance of qualities and skills of a teacher appears to have reduced between Interview 1 and Interview 2 with the importance of the teacher's knowledge increasing.

Table 2 - Construct Category Comparison - Simon Interview 1 against Interview 2

Category	% of associated constructs (Interview 1)	% of associated constructs (Interview 2)
Knowledge	8%	21%
Skills	25%	14%
Attitudes	25%	29%
Qualities	42%	36%

Annex A (Figure 32) graphically shows the focus sorting, and hierarchical clustering, of Simon's construing. The element dendrogram shows that Simon closely associates THE TEACHER I NEED TO BE TO PASS THE [PGCE] COURSE with A COMPETENT TEACHER (>95%). Interestingly Simon now associates MY PEER GROUP and THE COMMUNITY OF PRACTICE (>95%) with MY COLLEAGUES (>90%) and MYSELF (>85%) indicating a closer relationship with his colleagues and peers than was the case in Interview 1 and perhaps provides some support for the increasing influence of his colleagues that Simon describes in his narrative. Simon now associates MY MENTOR with MY FUTURE

SELF (>80%), rather than with his current self as he had in Interview 1. MY PREVIOUS TEACHERS are associated with the other elements at >75% perhaps indicating a reduction in their influence. THE TEACHER I WOULD FEAR TO BE was linked to the other constructs at >50%

The construct dendrograms are similarly clustered.

- Cluster 1 - a three construct cluster concerned with *free-flowing, having a natural rapport with the class vs robotic in the way they approach teaching* and *has a good work ethos, works hard vs poor work ethos, does the bare minimum* closely associated (>95%) and linked with a third construct *has knowledge above & beyond the syllabus vs has the minimum or less than the minimum subject knowledge* (>90%).
- Cluster 2 - a three construct cluster *naturally able to maintain classroom discipline without effort vs lack classroom presence & authority* and *makes teaching relatable, contextualised, justifiable vs identifies little practical application for the subject matter* are closely associated (>90%) and linked to *makes students feel valued for their contribution vs makes the students feel stupid* (90%).

These two sets of constructs are linked at 90% to make a single large cluster. The four remaining constructs are less closely associated.

- Cluster 3 - a two construct cluster with *free-style lessons, not classroom-based vs needs scripted lessons that are classroom based* and *has subject knowledge combined with practical experience vs teaching in purely academic terms* linked at >85%.
- Cluster 4 - a two construct cluster with *do not carry out formal reflection vs HAS to formally reflect on practice*; and *willing to try new material, not worrying about the syllabus vs conforms to the syllabus, attitude the ISPECs are important* linked at >80%.

Again, these constructs provide a useful window into Simon's construing. In cluster 2 for instance Simon appears to infer that by making teaching relatable and making the students feel that their contribution is valued he is more readily able to maintain classroom discipline. Similarly, cluster 1 appears to suggest that being 'free-flowing' and having rapport with the class is the result of Simon's hard work and good subject knowledge.

Once again, during the analysis of the Repertory Grid data, Simon was asked to name these groups of constructs in an effort to elicit what might be construed as a set of super-ordinate constructs or construct themes. Simon stated that construct cluster 1 describes **teaching qualities**, and construct cluster 2 describes **teaching standards**. Simon suggested that the construct clusters at 3 and 4 describe what he calls the **mode of teaching**.

The super-ordinate or construct themes Simon discussed in Interview 2 appear similar to those in Interview 1. The construct triad themed as **teaching qualities** looks to be similar to the Interview 1 theme **the person that the teacher is**. Similarly the theme **mode of teaching** appears to be similar to the Interview 1 theme **teaching method**. Lastly, although named differently, **teaching standards** appears to be an amalgam of the Interview 1 themes **basic teaching skills** and the **teacher's attitudes to the students**.

Annex A (Figure 33) shows Simon's Repertory Grid data arranged as a PCA graph. The two components plotted in the graph account for 89.4% of the variance in the data (78.4% + 11.0%) indicating that one plot is sufficiently accurate for analysis (Jankowicz, 2004).

The graph shows that the ten constructs are grouped in a loose fan configuration around the first component and this accounts for the high variance figure (78.4%) for first component (horizontal axis). The constructs making up the themes **teaching qualities** and **teaching standards** are most closely grouped around this first component. When looking at the position of associated elements with the more positive poles of these constructs on the lower right quadrant the two themes seem to represent the qualities and approach to teaching that MYSELF (Simon), his MENTOR and the COMMUNITY OF PRACTICE have now. The remaining four construct poles in the upper right quadrant that Simon themed the **mode of teaching** seem to be more associated with MY FUTURE SELF and are more of an aspiration, in that Simon hopes to deliver more 'freestyle' lessons, conduct less formal reflection, try new material and have subject knowledge combined with practical experience in the future.

Although in the analysis of the elements Simon appears to be relating more to this peers and community, the component analysis graph in the lower left quadrant shows that he associates his peer group and colleagues to some extent with construct poles that suggest *teaching in purely academic terms, needing scripted lessons and conforming to the syllabus*. This appears to support Simon's narrative that whilst he feels closer to the community than he did in Interview 1, he still feels that there are significant differences between him and his colleagues.

**Conclusion:** Simon’s second narrative and Repertory Grid data appear in many respects to reinforce the findings of the first interview. Whilst I would suggest that Simon’s constructs seem to remain influenced primarily by his formative experiences as a school student and the approach of his subject specialism and faculty, there is much more narrative evidence in the second interview of the influence of peers, colleagues and the wider community of practice. What Simon thinks about teaching and learning also seems to be heavily influenced by his own experiences in the classroom and the advice of mentors, particularly during formal lesson observations as part of his PGCE course. Additionally, Simon’s attitudes to those he teaches seem to have been particularly influenced by a new manager and this new attitude appears to be in conflict with some of his other colleagues. Table 3 shows how Simon ranked his second group of constructs in order of importance. Compared to his initial ranking, Simon’s constructs are now more organised by cluster. Indeed his five most important constructs are associated with his construct themes **teaching qualities** and **teaching standards**. Whilst constructs associated with ‘teacher qualities’ are again rated as important it is noteworthy that, like his initial rating exercise, Simon continues to place importance on constructs related to the subject. This may indicate that Simon focus remains on the subject as the key factor or driver in his teaching

Table 3 - Construct Ranking - Simon Interview 2

Construct	Cluster	KSAQ	Rating 1-10
Has the minimum or less than the minimum subject knowledge vs Has knowledge above and beyond the syllabus	teaching qualities	K	1
Lacks classroom presence and authority vs Naturally able to maintain classroom discipline with out effort	teaching standards	Q	2
Makes the subject relatable, contextualised, justifiable vs Identifies little practical application for the subject matter	teaching standards	K/S	3
Has a good work ethos, works hard vs Poor work ethos, does the bare minimum	teaching qualities	Q	4
Robotic in the way they approach teaching vs Free-flowing, having a natural rapport with the class	teaching qualities	Q	5
Has subject knowledge combined with practical experience vs Teaching in purely academic terms	mode of teaching	K/Q	6
Makes the students feel stupid vs Makes the student always feel valued for their contribution	teaching standards	A/Q	7
Has to formally reflect on practice vs Do not carry out formal reflection	mode of teaching	A	8
Conforms to the syllabus, attitude that ISPECs are important vs Willing to try new material, not worrying about the syllabus	mode of teaching	A	9
Needs scripted lessons that are classroom-based vs Freestyle lessons not classroom-based	mode of teaching	S/A	10

Simon's view on what has been the most influential factors in his professional learning and development as a teacher can be seen in Table 4.

**Table 4 - Ways of Learning to Teach in PCET - Simon**

<b>Ways of Learning to Teach</b>	<b>Level of Influence</b>
<b>Simply doing the job of teaching in the PCET environment</b>	25%
<b>The experience of being taught as a student</b>	25%
<b>Workshops and conferences</b>	5%
<b>Conversations with and observation of colleagues in the department</b>	15%
<b>Completion of a formal award-bearing course</b>	10%
<b>Reading about teaching and learning</b>	5%
<b>Guidance from a mentor</b>	15%
<b>Online learning</b>	0%

In Table 4 Simon assigns the greatest influence to factors such as his teaching practice and his previous experience of being taught. This is corroborated by the key themes within his narratives. However, the growing influence of the community of practice can be seen in the prominence of the influence ratings given to Simon's mentor and colleagues (30% combined). The low rating given to the influence of the formal award-bearing course further confirms Simon's low opinion of his PGCE course.

I would contend that Simon continues to struggle with what appears to be two competing views of teaching and learning. His view that teaching is trait-based seems to be linked to the acquisition metaphor of learning and manifests itself as a very teacher-focused approach in the classroom. This seems to be the basis for Simon's constructs and is linked to his experiences of being a student. However, Simon's second narrative seems to provide evidence that he was being influenced by the more participatory and student-focused approach of his colleagues. That Simon has seen this approach work and was beginning to use it himself suggests that his practice, if not his constructs, may have been beginning to change. Yet, I believe there is little evidence to suggest that Simon's constructs have changed in any noticeable way or that his narratives describing different ways of teaching are any indication of a significant shift in construing. Indeed, Simon's apparent acquiescence to a more participative and student-focused approach may simply be a cover story (Clandinin & Connelly (1995)) which, like Simon's 'rogue' character (equally present in his second narrative), serves to protect Simon from THREAT, FEAR, ANXIETY and GUILT<sup>11</sup> (Banister

<sup>11</sup> See technical glossary (p.236) for full definitions of these terms

and Fransella, 1989) as he continues to reconcile his construct system with his experiences as a teacher.

### 5.3 Trajectory

In the first interview, Simon highlighted his position as being located at the edge of the community of practice (shown as a cross in Figure 7). He described his trajectory by illustrating the kind of roles he aspired to in the future such as 'Officer Tutor' (which would allow him to continue teaching) and highlighted that he had no aspiration for the 'top job' nor any post that was particularly policy related. The fact that Simon appeared, at this point, to have limited career ambitions may be reflected by the position of his future self (shown as a dot in Figure 7) which is located one ring away from what he described as the community of practice.

Simon stated that he felt he had some influence over his trajectory and ability to get to the position he wanted but admitted he had limited ownership of his future roles. Nevertheless, Simon seemed positive and suggested he had accepted limited ownership of his trajectory as part of the role.

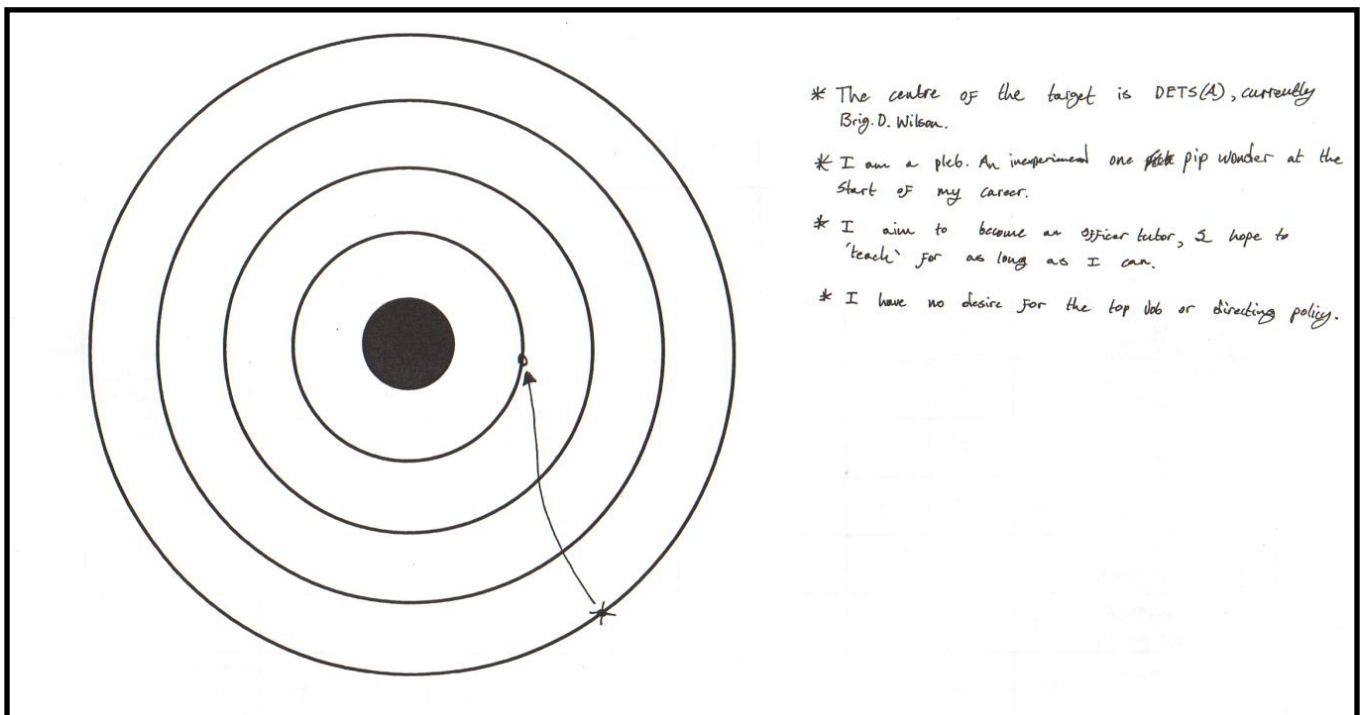


Figure 7 - Trajectory Target - Simon (Interview 1)

In Simon's second interview he saw his trajectory in slightly different terms. Firstly Simon illustrated his progress with a spiral arrow (seen in Figure 8) rather than a direct line as he did in his first Trajectory Target. This may indicate that he now sees his trajectory in more



complex terms. Simon now sees the centre of the target as representing the teacher he aspires to be, something he describes as 'the ideal' teacher. In particular, Simon mentions influential figures with 'subject matter expertise' and 'experience' – further evidence that these remain important aspects of Simon's construing. The community of practice, Simon suggests is now located between him and his conception of the ideal teacher. A comparison between the two Trajectory Targets shows that Simon has now positioned himself one ring further towards the community of practice. This may illustrate that Simon is beginning to feel at least some level of acceptance into the community. Simon stated that he was content with his trajectory which he described as a natural process, a 'course through life'.

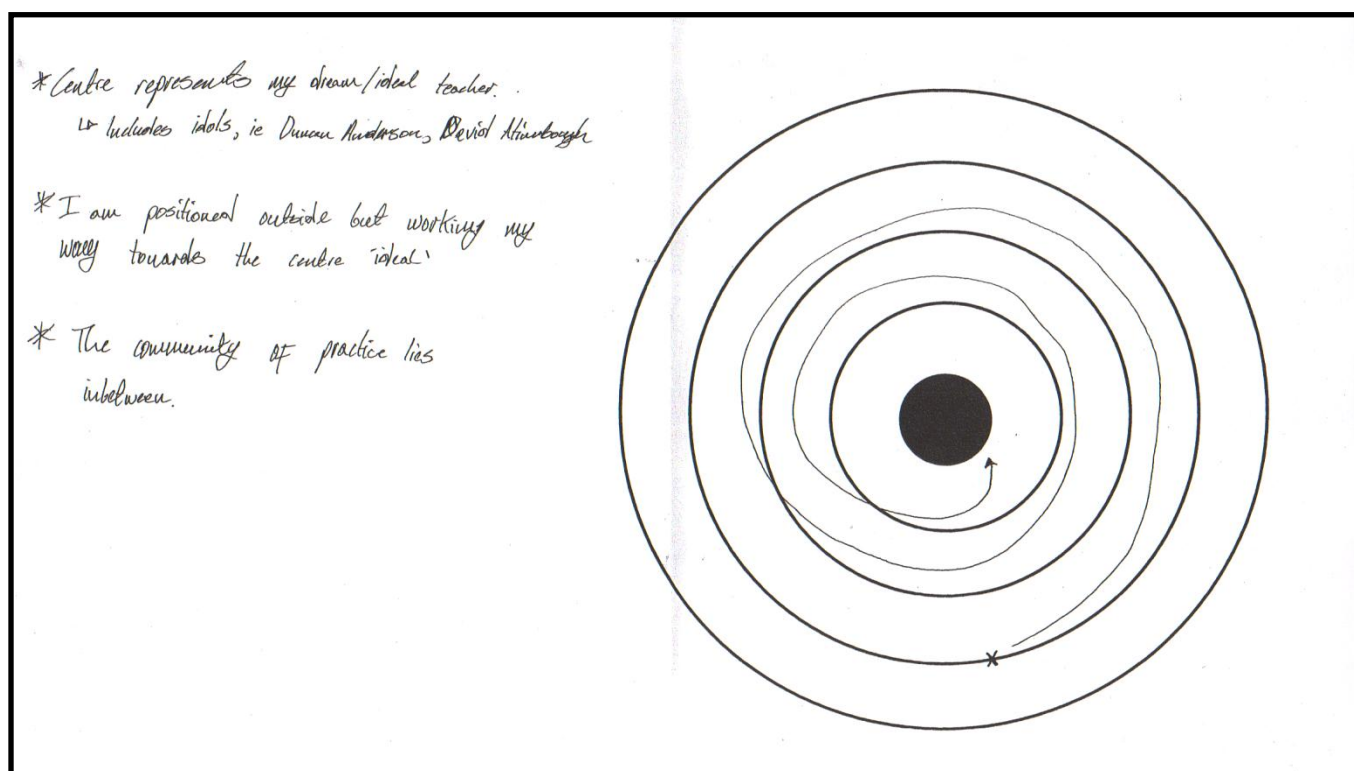


Figure 8 - Trajectory Target - Simon (Interview 2)

## 6 CASE STUDY 2: SARAH

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### 6.1 Interview 1

The narrative shows that, in the first few weeks of Sarah's professional practice, her theorising about teaching and learning was dominated by her experiences and struggles as a student. There are other influences that appeared to have been significant, such as Sarah's previous teachers and her colleagues, but, primarily, it appeared that it was Sarah's formative experiences as a student that had shaped her construing about teaching and learning.

*'...they thought I was really, really slow so I used to do loads of extra work, I couldn't read and I didn't want to read, I was never made to do it, I hated it, it was stupid it was like, it was very frustrating and I got very defensive'* (Line 10-16).

Sarah explained that it wasn't until she went to a private school aged eleven that things began to change.

*'The school had, ...it would give you as much time as you wanted. In my first, second and third year, I tried hard but I used to talk a lot so they thought I was clever but didn't try, rather than trying really hard and just liking to talk [laughs] err [pause] and then I got into my third, fourth and fifth year for GCSE so that's year [whisper counting] ten and eleven and my teacher, English teacher was just really happy to spend as much time with me as possible so I went from being in like a lot of the bottom sets moving up'* (Line 26-34).

As Sarah suggested in the collaborative interview, this is why she 'invests so much of herself' when teaching and why she has developed empathy with those she regards as fellow academic strugglers (Stanza 25). As a teacher, Sarah highlighted that she was driven and exercised by need to have an impact on the development of others.

*'...it's so rewarding like "yeah I'm having an impact". I've never had a job where I have done anything for anyone else other than Saturday jobs as a lifeguard in [her home town] and through school I had never done anything and it was so err [pause] wonderful seeing that and giving them their reports and seeing... having them say thank you and mean it and like the girl I said, you know, that she had genuinely improved [unintelligible] [laughs]. I was like "great what more do you want"'* (Line 326-332).

However, there is evidence in the narrative to suggest that, at her core, Sarah was scared and vulnerable in the classroom and so utilises a coping mechanism, or 'armour', to manage with life as a beginning teacher.

*'I think I'm going to, I haven't to yet, but I think I am going to have to learn to deal with people criticising my teaching and me and not have that eat me up from the inside out, so probably get a little bit harder, externally, [laughs]'* (A16).

*'I ..... had quite gentle classes at the moment and they have been quite positive, so it's made me positive too... I have to maintain that enthusiasm and be positive in the face of people who aren't enthusiastic or positive. Erm [pause], I think I am going to have to be a little bit less naïve...'* (A17).

At first glance it appears that Sarah is describing a classroom management approach, yet during the collaborative interview it became apparent that Sarah uses her positivity and enthusiasm as a defence mechanism against criticism and against some of the less positive students she encounters. During the collaborative interview Sarah described this defence mechanism as 'armour for the classroom'.

In the Repertory Grid activity, Sarah was only able to articulate eight constructs about the knowledge, skills, attitudes and qualities of a good teacher. This was something of a surprise as Sarah had, in all other respects, been highly analytical and articulate. At the conclusion of the activity, Sarah was asked to indicate which of the four aspects she believed each of her eight constructs were concerned with, accepting that each construct could be referring to more than one aspect.

Figure 9 shows how Sarah categorised her construing. Figure 9 shows, 67% of Sarah's constructs were concerned with the attitudes and qualities as a teacher. Given that Sarah felt she was driven by the desire to develop and support her students rather than to impart knowledge this is perhaps not surprising. That only one of her constructs (11%) describes a teaching skill was unexpected given the narratives regarding Sarah's use of coping strategies in the classroom. However, that the construct describes a facilitative against a didactic approach is very much in keeping with Sarah's development narrative.

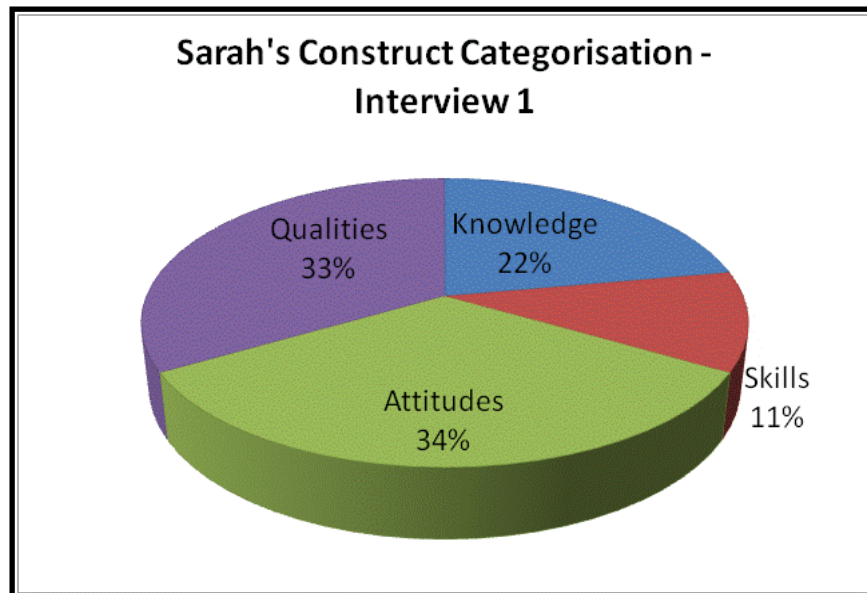


Figure 9 - Construct Categories - Sarah Interview 1

Annex B (Figure 34) graphically shows the focus sorting, and hierarchical clustering, of Sarah's construing. The element dendrogram shows that she associates MYSELF, MY PEER GROUP and MY MENTOR most closely, although the association is not particularly tight (>70%). She also associates MY PREVIOUS TEACHERS and MY COLLEAGUES (70%), with both clusters associating with MY FUTURE SELF (70%). Given Sarah's narrative, it might be surprising to find her associating herself so closely with influential elements such as her previous teachers or her colleagues. This may be explained by interpreting this association not as indicating that Sarah sees herself as equally competent but as a reflection of Sarah's comment that, whilst she wished to emulate some aspects of her colleagues' practice, she does not aspire to be anyone but herself (A31). A COMPETENT TEACHER (>65%) and THE COMMUNITY OF PRACTICE (>60%) are less associated with this cluster, although they are close enough to each other to suggest Sarah sees the community of practice as containing competent teachers. Finally, the elements least associated with the main cluster are THE TEACHER I WOULD FEAR TO BE (>45%) and THE TEACHER I NEED TO BE TO PASS [THE PGCE] COURSE (>45%) which may confirm Sarah's low opinion of teacher training course thus far.

The construct dendrograms are similarly clustered.

- Cluster 1 - a three construct cluster concerned with *has subject matter knowledge vs lacks subject knowledge; knowledge external to the subject – experience vs no wider knowledge, lacks experience; and has ability to control numerous tasks vs limited ability to control multi-tasks* are closely clustered (90%) suggesting that Sarah believes knowledge and experience will help her to control a number of tasks.

- Cluster 2 - a three construct cluster concerned with *self-improvement, re-evaluate practice vs never evaluating practice, stopped learning*; and *positive orientation to change vs negative orientation to change* (>85%). This cluster is further linked to *has enthusiasm vs jaded* (>80%) perhaps indicating that Sarah views evaluating and changing practice as an indicator of continuing enthusiasm.
- Cluster 3 - The constructs least associated with clusters 1 and 2 are *self-pride, perfectionist vs has poor attitude to own academic work*; and *facilitative rather than didactic vs lecturing* which meet the other clusters at >70%.

During the analysis of the Repertory Grid data, Sarah was asked to name these groups of constructs in an effort to elicit what might be considered as a set of super-ordinate constructs or construct themes. Sarah stated that construct cluster 1 describes the teacher's **knowledge and experience**, construct cluster 2 describes the teacher's **forward movement**, and construct cluster 3 describes the teacher's **intellectual capability**. Given that Sarah had not emphasised the importance of the teacher's knowledge and experience (cluster 1) in her narrative it was somewhat surprising that this would be the theme of the most associated construct cluster. This indicates that perhaps Sarah's narrative was not always able to provide an accurate window on her construing. Construct cluster 2, which describes the teacher's forward movement and development, however, is very much in line with the importance Sarah placed on development. There was some discussion in the collaborative interview regarding the final cluster (3) which Sarah had named intellectual capability but appeared confused in her explanation of the cluster and the orientation of the construct poles. This suggested that in the original exercise these constructs may have been rated incorrectly.

In order to address this issue Sarah was asked to re-rate the 10 elements for the constructs *has poor attitude to own academic work vs self-pride, perfectionist* and *facilitative rather than didactic vs lecturing* both of which appeared to be incorrectly rated. Annex B (Figure 35) shows the focus sorting, and hierarchical clustering for the re-rated constructs. Figure 35 illustrates that whilst there was an overall increase in the level of association between the constructs, they remain similarly clustered. Indeed Sarah's three construct clusters remain relevant even in the revised plot. There is some change in the positioning of the elements however. THE TEACHER I NEED TO BE TO PASS THE COURSE and THE COMMUNITY OF PRACTICE still represent the negative and positive ends respectively of the continuum along which the constructs are arranged. However in the revised plot the elements MY PEER GROUP, MYSELF and MY MENTOR have now been plotted much closer to the positive end of the continuum. This might indicate that Sarah has a more positive view of

herself, her mentor and her peers than is apparent in the initial plot. It should be noted however, that there remains some doubt about these re-rated constructs. Specifically, the way that Sarah has rated the construct *facilitative rather than didactic vs lecturing* sees THE TEACHER I WOULD FEAR TO BE and THE TEACHER I NEED TO BE PASS THE COURSE associated with the construct pole *facilitative rather than didactic* and MYSELF, MY MENTOR, MY PEER GROUP and MY FUTURE SELF with the construct pole *lecturing*. Given the importance that Sarah placed within her narrative on facilitating the development of her students, these ratings appear somewhat contradictory. Because there is some doubt regarding both data sets, all focus grids and principal component graphs have been included for comparison.

Annex B (Figure 36) shows Sarah's initial grid data arranged as a PCA graph. The two components plotted in the graph account for 67.7% of the variance in the data (41.4% + 26.3%) indicating that a second plot is required to account for 80% of the variance as recommended by Jankowicz (2004, p.134). However, the two components of the PCA graph with the re-rated constructs at Annex B (Figure 37) account for 82.3% of the variance in the data (64.7% + 17.6%) indicating that this plot is sufficiently accurate for analysis.

The initial graph shows Sarah's constructs spread loosely around the horizontal and vertical components in a wheel shape. This is to be expected when the first component does not account for a high degree of variance. Analysis shows that construct clusters 1 and 2 are arranged in a wide fan shape either side of the first (horizontal) component. Construct cluster 3 is grouped closer to the second (vertical) component. In the re-rated graph the constructs appeared to be more tightly grouped. Construct clusters 2 and 3 are now grouped around the first component and cluster 1 which represented the rather surprising 'knowledge and experience' theme is now a right angles to the other clusters which may indicate that this cluster does indeed represent a different theme in Sarah's construct system which was not fully explored within her narrative.

The locations of the elements with respect to the constructs warrant further discussion. In the initial graph, the right side of the component graph appears to display the more negative side of Sarah's construing. In the top right quadrant Sarah appears to associate the construct poles *no wider knowledge, lacks experience*; and *jaded* with the element THE TEACHER I NEED TO PASS THE [PGCE] COURSE. However, during the collaborative analysis, Sarah pointed out that whilst this was correct, her interpretation of that element was more about the teacher you can be and still pass the course. In the bottom right quadrant Sarah associated a number of negative construct poles with the elements A COMPETENT TEACHER and THE TEACHER I WOULD FEAR TO BE. What was surprising however was that the positive

poles of the construct cluster 3, *self-pride*, *perfectionist* and *facilitative rather than didactic* are located in this quadrant further indicating that these constructs may have been incorrectly rated.

The left side of the graph expresses Sarah's more positive construing. In the top left quadrant Sarah placed MYSELF, MY PEER GROUP, MY PREVIOUS TEACHERS and MY FUTURE SELF although it should be highlighted that all of these elements tend towards the bottom left quadrant to a greater extent than does Sarah's MYSELF element. Sarah appears to see herself being associated with construct poles *positive orientation to change* and *self-improvement, re-evaluate practice*. The lower left quadrant, which contains the construct poles *has enthusiasm; knowledge external to the subject - experience*; and *has ability to control numerous tasks* is associated with MY MENTOR, MY COLLEAGUES and THE COMMUNITY OF PRACTICE and seems to refer more to Sarah's future wish to gain more experience. It should be noted however that with so many elements and constructs located around the vertical axis on the left side, the separation of the graph into quadrants is something of a crude analytic tool.

In the PCA graph with the re-rated constructs, the positive and negative sides of the graph have reversed with the more positive poles of Sarah's constructs now on the right side of the graph. In this graph Sarah associates MYSELF, MY MENTOR and MY PEER GROUP with the positive poles of the clusters representing **forward movement** and **intellectual capability** and associates THE COMMUNITY OF PRACTICE, MY PREVIOUS TEACHERS and MY FUTURE SELF with the positive poles of the cluster representing **knowledge and experience**. Notable is that the construct pole *facilitative rather than didactic* remains in the left side of the graph (which contains the more negative construct poles) providing further evidence that this re-rated data may also be unreliable.

**Conclusion:** Sarah's initial narrative illustrated that, at this early stage, her construing about teaching and learning has been influenced primarily by her formative years as a student, particularly the difficulties that Sarah has faced and overcome. I believe there is also evidence in the narrative of the influence of selected teachers that Sarah indicated were patient, and believed in her ability and this has become the 'blueprint' for Sarah's development narrative that dominated her ideas about teaching and learning.

*'Erm [pause] my teachers at secondary school, I just thought that they had the time and they were willing to help me so much more than they ever had needed to or had to they didn't get paid any more, it was purely, it was because they wanted me to improve because it gave them satisfaction, and I wanted to be able to have that level of patience and willingness to help someone'* (Stanza 108-109).

Sarah's narrative however, does not appear to be strongly corroborated by the Repertory Grid data. Of Sarah's three construct themes; teacher's **knowledge and experience**, teacher's **forward movement** and teacher's **intellectual capability**, only teacher's forward movement seems to correspond with the development constructions within her narrative. It is difficult to explain why this might be. Sarah found the Repertory Grid challenging and one possible explanation is that an error with her ratings has resulted in different construct combinations within the clusters and therefore different themes. I would contend that this explanation is unsatisfactory however, not only because analysis of the re-rated constructs demonstrated that the Sarah's construct themes remained relevant, but also because this fails to account for the nature of the constructs that were elicited from Sarah.

A second explanation might be that the remaining construct themes; teacher's **knowledge and experience** and teacher's **intellectual capability** refer in some way to Sarah's other dominant narrative which described the methods by which Sarah 'protected' herself as a beginning teacher in the classroom. Again I would suggest that this is unsatisfactory because there is very little evidence to support this explanation.

Table 5 shows how Sarah ranked her initial constructs in order of importance. It is difficult to see any patterns following Sarah's ratings of her constructs. Indeed Sarah's most important constructs seem to represent equally the knowledge, skills, attitudes and qualities of a teacher as well as being drawn from all of Sarah's construct themes. This seems to indicate that, at this point, no one area or theme is dominant in Sarah's construing about teaching and learning.



Table 5 - Construct Ranking – Sarah Interview 1

Construct	Cluster	KSAQ	Rating 1-10
Has subject matter knowledge vs Lacks subject knowledge	teacher's knowledge & experience	K	1
Has enthusiasm vs Jaded	teacher's forward movement	A	2
Facilitative rather than didactic vs Lecturing	teacher's intellectual capability	S	3
Self-improvement, re-evaluate practice vs Never evaluating practice, stop learning	teacher's forward movement	Q	4
Has a poor attitude to own academic work vs Self-pride, perfectionist	teacher's intellectual capability	A	5
Knowledge external to subject – experience vs No wider knowledge, lacks experience	teacher's knowledge & experience	K/Q	6
Negative orientation to change vs Positive orientation to change	teacher's forward movement	A	7
Has ability to control numerous tasks vs Limited ability to control multi-tasks	teacher's knowledge & experience	Q	8

## 6.2 Interview 2

In her second narrative Sarah continued to draw on her formative experiences as a student but her theorising about teaching and learning appeared to be more heavily influenced by other sources. The main theme of Sarah's construing seemed to be centred around a narrative in which Sarah sees her role as a teacher being focused on 'developing' and 'caring' for her students.

*'...I think that the sort of teacher becomes an informal counsellor and like you know Egan's helping model, you know the skilled helper. I think that is really important and I think if you don't embrace that you can see it in the instructor and you have no desire to work with them or for them or with your class because you don't have the interest it's like it's one way and I've never liked that' (A60).*

*'I'm less nervous, but I think [long pause] I'm just as interested in helping people as I was I just know better ways in which to do it now, than I did last time ...I find that very rewarding that after a week in the class that people can bring up things and feel like they can talk to you about it because you are generally interested in them, not just their professional development but their personal development too' (A62).*

Although the influence of her colleagues and peers is more pronounced in the second narrative Sarah was able to identify what she regarded as both good and bad practice and was critical of those colleagues who appear not to share Sarah's central views.

*'Yeah, yeah by my colleagues and the experiences that I have had with them, because it's not just them and their experience it's about like what they are like when they teach and I've tried to watch people a lot erm [pause] because I think you can learn the most from watching others' (A69).*

*'Ok, so when I first started teaching CLM last summer I was doing lots with [colleague]. I would meticulously prep [sic] lessons, resources, activities and [colleague] would just have a bit of a discussion but it didn't really get anywhere she hadn't prepared her questions enough so it drove nowhere a little bit round the houses and really didn't pull out the key learning points err [pause] I think it's mostly because she is a bit lazy, erm [pause] and she hasn't really done much teaching' (Line 695-704).*

*'So I don't want to get into that part where you don't reassess your own ability and get complacent in what I deliver' (Stanza 189).*

*'Erm [pause] then going to teach English Language with [colleague],...he created lesson plans, he did the research, and it was everything I did as well. And it was good to see*

*somebody else giving, putting that much effort into preparation err [pause] and that was good because it reinforced the reasons as to why I do it because you create an interesting lesson from it and watching him teach and seeing his lessons were genuinely interesting, the students liked them, I was glad then when I could replicate that myself which helped' (Stanza 190-194).*

There are two interesting conflicts within Sarah's second narrative. In the first, Sarah's views about the teacher's need for experience seemed inconsistent. Sarah's passionate and articulate defence of her own inexperience in Stanzas 168, 169 and A53 seemed at odds with her view that teachers with experience add 'value' in the classroom (A55). The second inconsistency is centred on Sarah's epistemology which seemed to alternate between one based on knowledge transfer and knowledge acquisition, and another based on a more constructivist and participative view of learning (A54-57). During the second narrative Sarah seemed unable to resolve this conflict between simple and developed views of teaching (Fox, 1983) but during the collaborative analysis interview appeared unconcerned by the dichotomy.

Sarah continued to illustrate her struggle with self-confidence which, in her first narrative, had led her to use various strategies and rhetorical devices as 'armour' for the classroom. Although in the narrative Sarah contended that she was more self-assured, there was evidence to suggest that this increased self-confidence could be easily undermined, particularly when Sarah received feedback from students (Stanza 157, 158, 161 and 195-203).

*'Erm [pause] I am much more self-confident but I think that's just like a general movement across sort of my life in general, ...teaching whilst sometimes I still find it quite hard and a bit nerve wracking it's really good because it just reminds you that it's not all about you it's about how you involve them and I think that's really important' (A83).*

Sarah was able to articulate nine constructs about the knowledge, skills, attitudes and qualities of a good teacher. At the conclusion of the second Repertory Grid activity, Sarah was asked to indicate which of the four aspects she believed each of her nine constructs were concerned with, accepting that each construct could be referring to more than one aspect. Figure 10 shows how Sarah categorised her construing:

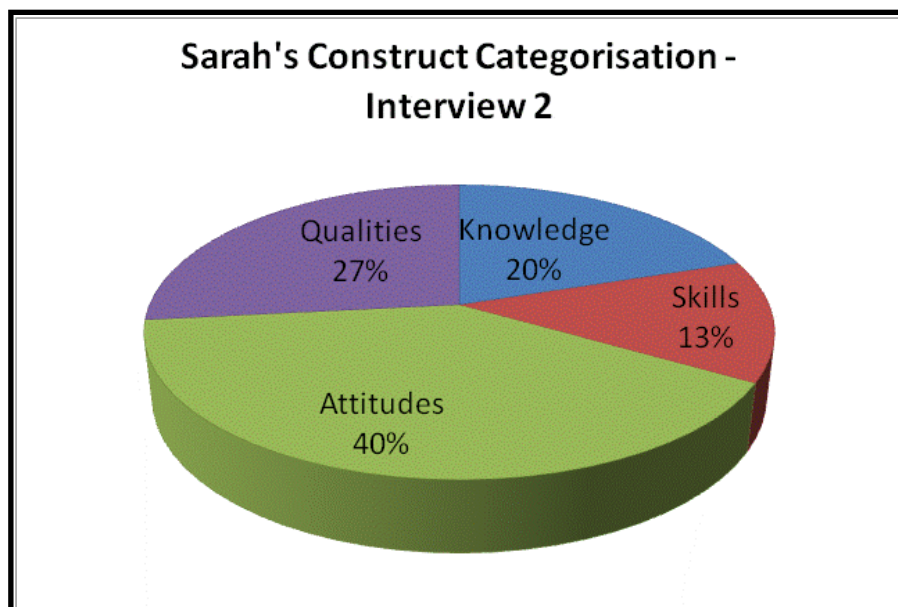


Figure 10 - Construct Categories - Sarah Interview 2

Despite articulating a completely new set of constructs, Table 6 shows that Sarah's categorisation of her construing in the second Repertory Grid was highly comparable with the first.

Table 6 - Construct Category Comparison - Sarah Interview 1 against Interview 2

Category	% of associated constructs (Interview 1)	% of associated constructs (Interview 2)
Knowledge	22%	20%
Skills	11%	13%
Attitudes	34%	40%
Qualities	33%	27%

Once again, two thirds of Sarah's construing was concerned with attitudes and qualities and may prove indicative of an inclination towards a trait-based view of the teacher. Areas of Sarah's narrative provide some corroboration of this thinking in what appears to be Sarah's critical evaluation of colleagues whose behaviour she feels does not demonstrate the appropriate qualities or attitudes (Line 695-704).

Annex B (Figure 38) graphically shows the focus sorting, and hierarchical clustering of Sarah's construing. Both the element and construct dendrograms appear to be more closely associated in Sarah's second Repertory Grid perhaps indicating a more settled, consistent or centralised view of the teacher is beginning to emerge.

The element dendrogram shows that Sarah now most closely associates MYSELF and MY PEER GROUP (>95%). She also closely associates MY FUTURE SELF with MY MENTOR (>90%) and these two sub-clusters come together with MY PREVIOUS TEACHERS at 90%

association. This appears to be the 'positive' element cluster that Sarah associates with and aspires to. A second cluster is formed with the association of A COMPETENT TEACHER and THE TEACHERS I NEED TO BE TO PASS THE [PGCE] COURSE (>90%). This sub-cluster is linked to THE COMMUNITY OF PRACTICE (>85%) and THE TEACHER I WOULD FEAR TO BE (>80%) and appears to offer a negative antithesis of the first cluster. Interestingly, Sarah has placed the element MY COLLEAGUES between these two clusters perhaps indicating her view that they are representative of both 'good' and 'bad' practice.

The construct dendrograms are also tightly clustered.

- Cluster 1 - a large cluster that consists of five strongly associated constructs: *positive orientation toward education vs has minimum attitude, not positive, not enthusiastic*; and *delivers a positive experience vs don't have a positive effect on students in terms of learning experience (>95%)*; *invest more time that they have to vs get away with the minimum lesson preparation (95%)*; *drive forward to continuous improvement in teaching practice and lesson delivery vs never questions learning points, delivers because they are there (>90%)*; and *keen to orientate student in long-term education vs not interested in personal development (>90%)*.
- Cluster 2 – a two construct cluster consisting of *enthusiasm to improve practice on a wide scale/in general vs happy to produce mediocrity*; and *capable in all aspects of teaching (how and what) vs mediocre delivery & research (>85%)*.

Clusters 1 and 2 are associated with the construct *caring & involved & interested in the development of students vs not as caring as they ought to be* at >80%. The construct least associated with the clusters is *has experience vs has limited experience (>75%)*.

During the analysis of the Repertory Grid data, Sarah was asked to name these groups of constructs in an effort to elicit what might be construed as a set of super-ordinate constructs or construct themes. Sarah stated that the cluster 1 describes **sharing the positivity of education**, construct cluster 2 describes the **how you project that** (technically). Despite Sarah suggesting that a number of the individual constructs were concerned with knowledge and skills, both clusters seem to be more representative of the attitudes and qualities Sarah feels a teacher should possess. Whilst the name of cluster 2 seems to refer to technical teaching knowledge and skills, the actual constructs, and Sarah's categorisation of them, points more to attitudes and qualities. It might be that the two clusters are more adequately summarised by the associated construct *caring & involved & interested in development of students* which also appears to be a good summation of Sarah's overall narrative. The fact

that Sarah's final construct *has experience vs has limited experience* is disassociated from the other clusters may be an illustration of the fact that it is a genuinely separate constructs or, perhaps, the conflict Sarah appears to be experiencing in accommodating this construct within her overall construct system.

Annex B (Figure 39) shows Sarah's grid data arranged as a PCA graph. The two components plotted in the graph account for 91.3% of the variance in the data (83.9% + 7.4%) indicating that the plot is sufficiently accurate for analysis (Jankowicz (2004)).

The graph shows that eight of Sarah's constructs are contained in a tight fan shape around the first (horizontal) component. This was expected given the high variance figure for the first component (83.9%). As the construct dendrogram indicated, this densely packed grouping seems to be reflective of Sarah's overall 'caring and development' narrative and that eight of nine constructs are within this grouping further suggests that, when compared with her construing at Interview 1, Sarah has refined her construct system considerably. As previously discussed, the single construct, *has experience vs has limited experience*, shown in the principal component graph to be outside of this grouping may be struggling to find a place within the Sarah's current construct system.

The locations of the elements with respect to the constructs show that Sarah is construing the right side of the component graph as the negative side and left as the positive side. It is again interesting that Sarah has moved THE COMMUNITY OF PRACTICE from the positive side of the graph in Interview 1 to the negative side in Interview 2. It is difficult to determine the reason for this change but one possible explanation is that, over the last year, Sarah has developed a view that the community has lost its enthusiasm for teaching (A70).

*'I think this is about not getting old [laughs] in that graph [the Repertory Grid] I looked across the whole way back through I noticed I marked the AES lower than I marked myself and my peer group and myself and my peer group are always higher than a lot of my colleagues are always better and always all three of them are better than the community of practice I think some people stick around in the ETS and deliver a substandard product and there's no one there to quality assure them and to pick them up for it' (A70).*

The location of MY COLLEAGUES at the origin graphically demonstrates the supposition that Sarah sees her colleagues as encapsulating both 'good' and 'bad' practice.

**Conclusion:** Whilst Sarah's overall narrative of caring and development has remained remarkably consistent over time, the Repertory Grids elicited during Interview 1 and Interview 2 appear to demonstrate a change in her construing (albeit that there are doubts about both datasets). I would contend that a comparison of the two principal component graphs

illustrates that Sarah's construing has become more settled on one central, super-ordinate construct or construct theme. Despite the construct dendrogram in Interview 2 showing two distinct clusters, I have already argued that these clusters are representative of, and corroborate, aspects of Sarah's overall narrative. Whilst Sarah's second narrative illustrates the growing importance and influence of her colleagues and peers, as well as her use of reflection, and her continuing struggle to react positively to feedback, these influences do not appear to have fundamentally changed Sarah's core construing about teaching and learning. Indeed, it appears that these influences on Sarah during her initial period of professional practice have served only to reinforce those central ideas that Sarah drew from her experiences and struggles as a student.

**Table 7 - Construct Ranking - Sarah Interview 2**

<b>Construct</b>	<b>Cluster</b>	<b>KSAQ</b>	<b>Rating 1-10</b>
<b>Not interested in personal development vs Keen to orientate student in long-term education</b>	sharing the positivity of education	A	1
<b>Caring &amp; involved &amp; interested in development of students vs Not as caring as they ought to be</b>	1&2?	Q	2
<b>Has minimum attitude, not positive, not enthusiastic vs Positive orientation towards education</b>	sharing the positivity of education	A	3
<b>Don't have a positive effect on students in terms of learning experience vs Delivers a positive experience</b>	sharing the positivity of education	K/S/A/Q	4
<b>Drive forward for continuous improvement in teaching practice &amp; lesson delivery vs Never questions Learning points, delivers because they are there</b>	sharing the positivity of education	S/A	5
<b>Enthusiasm to improve practice on wide scale/ in general vs Happy to produce mediocrity</b>	How you project that (technical)	A	6
<b>Get away with the minimum lesson preparation vs Invest more time &amp; effort than they have to</b>	sharing the positivity of education	A/K	7
<b>Capable in all aspects of teaching (what &amp; how) vs Mediocre delivery &amp; research</b>	How you project that (technical)	K/Q	8
<b>Has experience vs Has limited experience</b>		Q	9

Table 7 shows how Sarah ranked her second set of constructs in order of importance. Table 7 appears to corroborate the view that Sarah has become more consistent in her construing about teaching and learning. Her most important constructs seem to be centred on the **sharing the positivity of education** theme, although given that this theme is associated

with a large cluster this is perhaps unsurprising. However, Table 7 also shows that Sarah's more important constructs are largely linked to 'teacher's attitudes'. This might indicate that Sarah believes a caring attitude the most important part of her construing about teaching and learning.

Sarah's view on the most influential factors in her professional learning and development as a teacher can be seen in Table 8.

**Table 8 - Ways of Learning to Teach in PCET - Sarah**

<b>Ways of Learning to Teach</b>	<b>Level of Influence</b>
<b>Simply doing the job of teaching in the PCET environment</b>	15%
<b>The experience of being taught as a student</b>	25%
<b>Workshops and conferences</b>	0%
<b>Conversations with and observation of colleagues in the department</b>	40%
<b>Completion of a formal award-bearing course</b>	10%
<b>Reading about teaching and learning</b>	5%
<b>Guidance from a mentor</b>	5%
<b>Online learning</b>	0%

Sarah appeared to place the highest value on the opportunity to observe and discuss her ideas with her colleagues. Indeed during this exercise Sarah wrote *'want more of this, the most valuable – would like to give this [maximum] points'*. Sarah indicated that the experience of being taught as a student was also influential and made the interesting comment that *'own experience makes up for the lack of time set aside to discuss and observe'*. A theme I believe she alludes to in her low influence rating and comments about her mentor: *'informal mentoring process, would have been nice to have had [it] more formalised'*. These comments may illustrate that, in Sarah's view, the lack of access to a formal mentor or a strong peer group may in result in the beginning teacher relying heavily on the ideas and views of teaching that they developed during what Lortie (1975) described as their apprenticeship of observation. Indeed, as Table 8 shows, even if the option concerning the opportunity to teach was combined with the completion of a formal, award bearing course, and reading about teaching and learning to represent the influence of the PGCE course it is clear that Sarah found this the least influential in her thinking commenting *'PGCE – not that useful'*. This corroborates with Sarah's thoughts on the PGCE in the collaborative analysis interview following the first narrative when she described the PGCE course as *'light entertainment'*.



### 6.3 Trajectory

In the first interview, Sarah highlighted her position within the community of practice by separating the target into two poles: *competent vs not competent*; and *enthusiastic vs not enthusiastic* and by naming the outside ring *experience*. These seem to be aspects of Sarah's construing about teachers and further demonstrate how graphical approaches can be utilised to elicit constructs (Denicolo & Pope, 2001; Cabaroglu & Denicolo, 2008). The poles plotted on the target allowed Sarah to illustrate her position relative to these constructs. Figure 11 showed that Sarah positioned herself in the top left quadrant of the target indicating that Sarah sees herself as enthusiastic and competent. Her trajectory arrow sees her moving towards the outer ring as she gains more experience. Sarah highlighted that because of the way she conceptualised her trajectory that she felt fully in control of her progress because regardless of future roles, she could continue to gain more experience and become more competent.

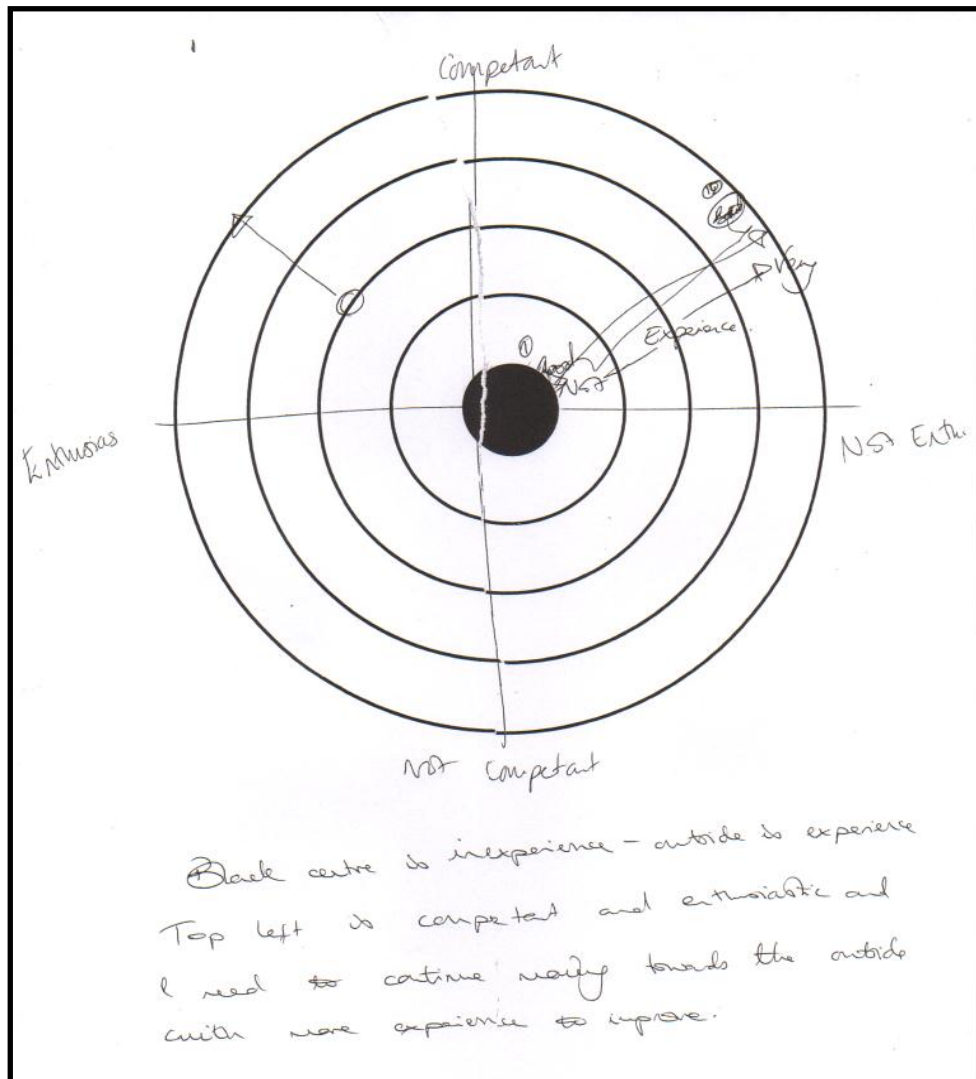


Figure 11 - Trajectory Target - Sarah (Interview 1)

In her second interview Sarah seemed to view the Trajectory Target in a similar way. The rings remained connected with experience, but Sarah now, as Figure 12 highlights, placed timelines against each ring. This time, Sarah's Trajectory Target showed a range of potential trajectories linked to knowledge, skills, attitudes and experience (grouped around the centre of the target) and illustrated how these could diverge at various points in her career with what she viewed as positive and negative roles. This demonstrated an increasingly complex understanding of the community of practice with a large number of potential trajectories. In this conceptualisation, Sarah now suggested she has less control over certain trajectories and highlighted the barriers that might prevent her from following her preferred trajectory. There was little evidence however that Sarah found this particularly disturbing, but rather found it a natural process.

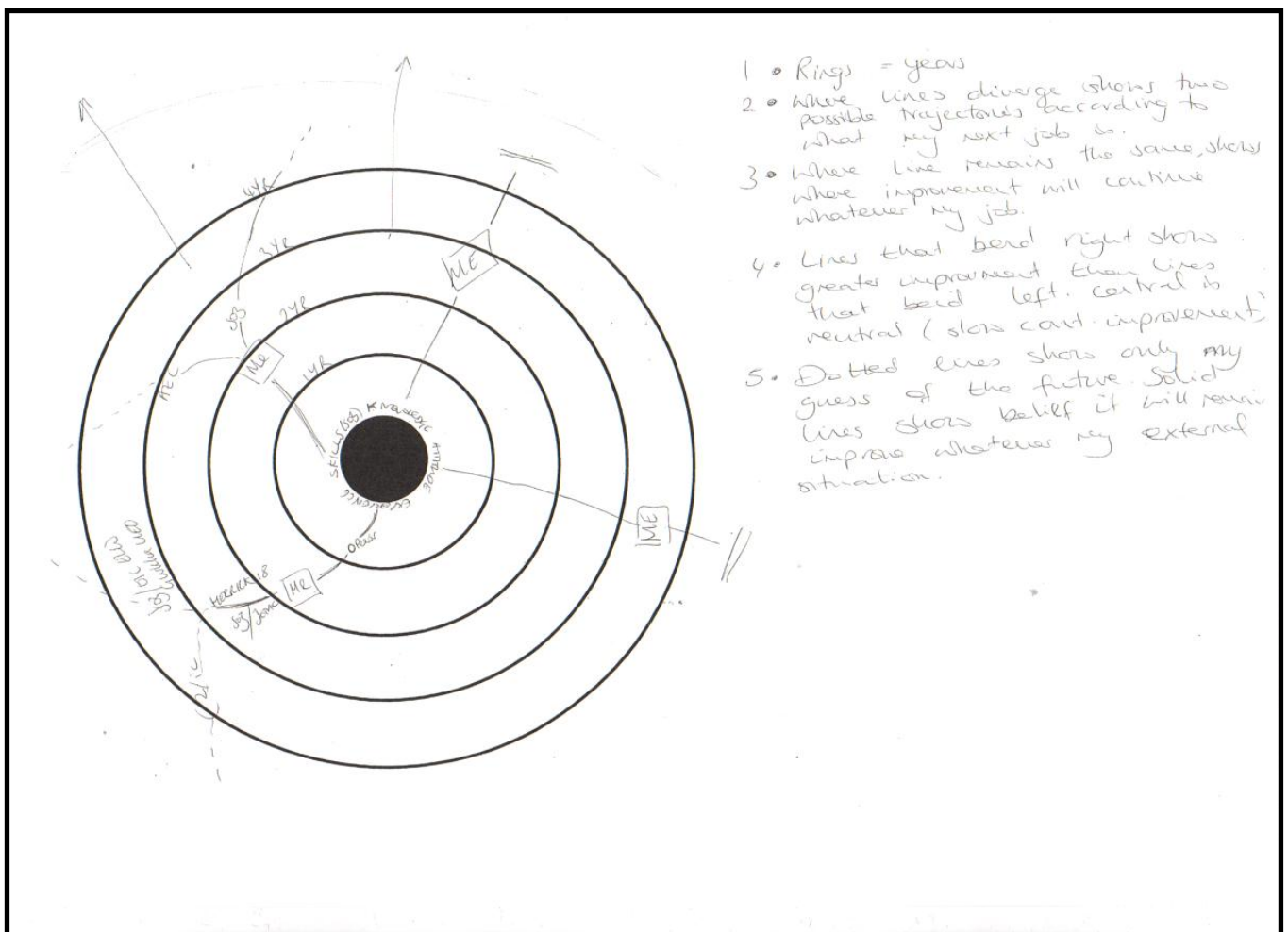


Figure 12 - Trajectory Target - Sarah (Interview 2)

## 7 CASE STUDY 3: GARRY

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### 7.1 Interview 1

As Garry's initial narrative developed, his theorising about teaching, learning and his early professional practice appeared to be influenced by both his experiences as a student and by the qualities and attributes of a number of prominent mentors and role models. It is notable that, whilst Garry drew on these mentors and role models to illustrate and provide a reference for his views on teaching and learning, many came from fields outside of education and the majority did not have a formal teaching role for Garry. Many of the critical incidents that dominated the early parts of Garry's narrative appeared to be initiated by these mentors and, during the collaborative interview, it was Garry who identified a change in the way he constructed his narrative as he attempted to take more of a personal control of his trajectory – a process he described as *'getting a grip'* (Line 231).

*'So I think those two individuals had a profound effect at that stage err [pause] and whilst on the degree again sort of erm [pause]. The thing that is lacking in all of this is I never really made a real conscious commitment to do the next step; it generally seemed like the most relevant or the sort of obvious next step which is really poor. I didn't get to grip with my own trajectory until later'* (Line 225-230).

Garry's narrative was also dominated by a theme in which he appears to put a personal emphasis on the value of practice over theory. In the collaborative analysis interview, Garry and I describe this as his *'anti-intellectual'* identity yet this is a somewhat crude and unhelpful construction because it fails to fully illustrate how Garry's narrative developed. Garry's use of the term *'intellectual'* was imprecise and inconsistently applied throughout his narrative, however, the general theme reflected Garry's apparent view that he has had greater *'success'* and was more motivated when the learning was vocationally-based. This view may account for the minimal influence on his views of teaching and learning that Garry ascribes to teachers and to his PGCE course which, at this point, Garry viewed as being divorced from his practice.

*'Yeah ok, in that sense the disconnect is palpable err [pause] but luckily because of the way that the first chunk of the PGCE is delivered, you know in the BT course, ...you start to realise that there is a disconnection, and you know it's almost one that you expect, I think it's a disconnect which we are we are comfortable with as individuals because there is always that theoretical reality [pause] reality that divides so it's not an unpleasant or uncomfortable divide, it's almost expected'* (A18).

It should be noted however that Garry has, to some extent, compartmentalised his view of the PGCE course referring primarily to the more theoretical and academic aspects of the course.

There is evidence towards the latter part of Garry's narrative of the influence of mentors and, increasingly, his colleagues, on his views and practice. During the collaborative analysis interview, he described a behaviour-modelling and role-experimentation approach similar to Ibarra's (1999) concepts of possible and provisional selves. Ibarra suggests that possible and provisional selves are tools often appropriated by junior professionals who need to convey a credible image sometime before they have fully developed their own professional identity. For Garry, this requirement may itself be linked to what is described in his narrative as *'jumping in with both feet'* (Line 487), that is, a lack of space and time for legitimate peripheral participation (Lave & Wenger, 1991) which means Garry had to find a credible teaching identity to exploit.

In the initial Repertory Grid activity, Garry was able to articulate eight constructs about the knowledge, skills, attitudes and qualities of a good teacher. Despite being a highly reflective individual, Garry found the elicitation process challenging. At the conclusion of the activity, Garry was asked to indicate which of the four aspects he believed each of his eight constructs were concerned with, accepting that each construct could be referring to more than one aspect. Figure 13 shows how Garry categorised his construing.

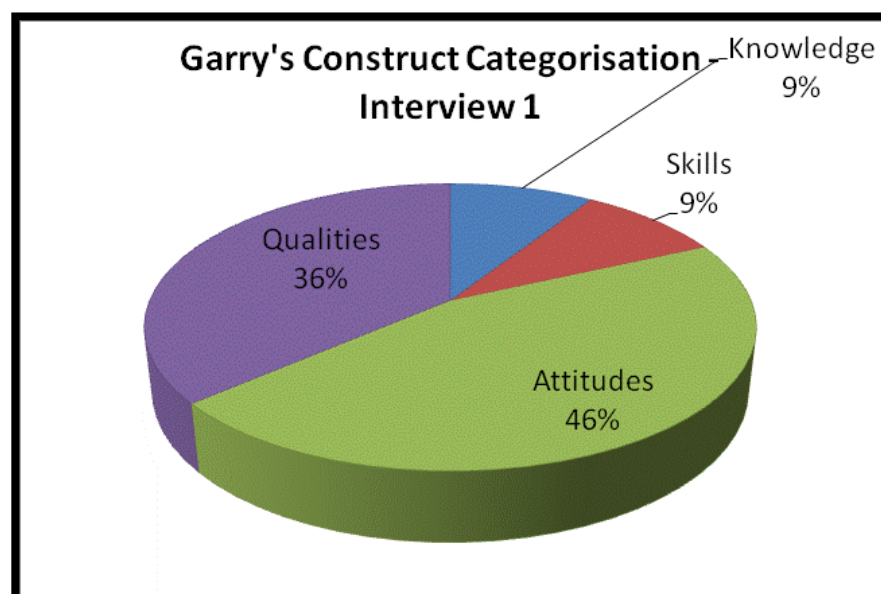


Figure 13 - Construct Categories - Garry Interview 1

As Figure 13 shows, Garry considered the majority of his constructs to be concerned with the attitudes and qualities of a teacher (82%). This is perhaps unsurprising given the apparent development of a trait-based view of a teacher that Garry developed in his narrative and the qualities and attributes of his role models that Garry drew upon in his construing.

*'I think this is going to sound really way out there, but I think the way I become a teacher is a kind of a, I think it's an innate ability everybody has but I think it's a point at which you become err [pause] sufficiently self-aware that erm [pause] you feel as though you can teach, so it's almost err [pause] a subconscious switch where you go from a sort of knowing about really having to consciously instruct to being able to, it's not subconscious but its erm [pause] yeah it's something within yourself I think. I don't think there is a point in time where, professionally, you know certificates aside, qualifications aside, I know people who are exceptional teachers who have no qualifications err [pause] and it's because they've reached this point in their subconscious where they are able to identify with the needs of a learner and address those needs from their own skill base, so in that sense it's just a realignment of tools that we have already got' (A20).*

*'...you know because you know your own short comings and you know your own strengths you are able to identify where you need to, you know, err [pause] signpost or what have you. So there needs to be a degree of self-awareness and there needs to be a degree of sort of understanding of the individual and I think all of those things, when they are all it's just, it's just going through that process. The process is triggered by things such as the PGCE erm [pause] you know there, I truly think that anybody can teach, certain people would be natural and it would be better than others but yeah, I think definitely there is sort of a process that just needs the right triggers' (A22).*

Annex C (Figure 40) graphically shows the focus sorting, and hierarchical clustering, of Garry's construing.

The element dendrogram shows two distinct but loosely associated clusters. The first shows that Garry most closely associates MYSELF and MY MENTOR (>75%) with MY PEER GROUP (>70%) and MY FUTURE SELF (>70%). The second cluster which, as we will see, represents Garry's more negative perceptions sees the TEACHER I NEED TO PASS THE COURSE and A COMPETENT TEACHER associated (>70%) and further linked with MY COLLEAGUES (>70%), The COMMUNITY OF PRACTICE (>65%), THE TEACHER I WOULD FEAR TO BE (>65%) and MY PREVIOUS TEACHERS (65%). Garry seemed to have separated the elements into positive and negative categories. He associated with his peer group and mentor but seemed to wish to distance both his present and future self from more established teachers such as his colleagues or previous teachers. This may reflect

Garry's lack of connection with his previous teachers and highlights why, in his narrative, he utilises role models and mentors from outside of the classroom.

The construct dendrograms are similarly grouped into two, more tightly associated main clusters.

- Cluster 1 - this main, five-construct cluster is concerned with *application to teaching tasks vs ambivalent to teaching tasks; intrinsically self-aware of personal attributes vs lack of self-awareness; exceeds minimum competency level vs marginally achieving the minimum competency level; teaching to and for the benefit of the students vs teaching for the sake of teaching, meeting quotas; and focused on what is important, fundamentals vs too much emphasis on unimportant tasks & distractions, lack of focus (>90%),* and therefore seems to concentrate mainly on describing the attributes of the teacher.
- Cluster 2 – the second, two-construct cluster contains the constructs *has a desire to develop and improve as a teacher vs lack of desire/lethargy with regards to development* and *genuinely enjoy teaching vs no longer enjoys teaching (95%)* suggesting that Garry strongly links the desire to develop and improve as a teacher with enjoying teaching.

During the analysis of the Repertory Grid data, Garry was asked to name these groups of constructs in an effort to elicit what might be viewed as a set of super-ordinate constructs or construct themes. Garry stated that the five-construct cluster 1 described the teacher **awareness of self and the needs of others**, construct cluster 2 described the **teacher motivation - the desire to improve and be challenged**. Given that Garry indicated that the majority of his constructs were concerned with the attitudes and qualities of teachers, these construct themes come as no real surprise. The negative poles of the largest five-construct cluster 1, which Garry described as awareness of self and the needs of others, appears to echo the feelings about teaching that Garry described in his narrative (Stanza 154 – 158) particularly in his views about the inconsistency of his supply teachers and their failure to meet his needs as a student.

*'We had a constant stream of supply teachers err [pause] ...there was a supply teacher I had for a period erm [pause] who was very young, fresh from sort of, out of doing PCGE and everything else and she was really good because she was motivated, she was enthusiastic, she was engaged. But the majority of the ones we were getting were obviously sort of in the pasture years and were cynical, old school, and just wanted to do their own thing and wholly, in that sense, inconsistent' (Stanza 154-156).*

Annex C (Figure 41) shows Garry's grid data arranged as a PCA graph. The two components plotted in the graph account for 89.5% of the variance in the data (80.8% + 8.7%) indicating that one plot is sufficiently accurate for analysis (Jankowicz, (2004)). The graph shows Garry's constructs arranged in fairly tight fan shape around the first (horizontal) component. This is to be expected when this component accounts for a high degree of the variance (80.8%). The tight construct arrangement means that it is difficult to see the arrangement of the construct clusters 1 and 2 within the graph.

The location of the elements with respect to the constructs is interesting and further demonstrates that Garry has split the elements into positive and negative groupings. The right side of the component graph appears to display the more positive side of Garry's construing.

In the top right quadrant Garry seems to associate MY FUTURE SELF with the construct poles *intrinsically self-aware of personal attributes; exceeds minimum competency level; application to teaching tasks; embraces future development in role and community of practice*. This may indicate the areas Garry feel he needs to develop. In the bottom right quadrant Garry associates MYSELF, MY MENTOR and PEER GROUP with the construct poles *focused on what is important, fundamentals; teaching to and for the benefit of the students; has a desire to develop and improve as a teacher; and genuinely enjoy teaching*.

The left side of the graph expresses Garry's more negative construing. In the top left quadrant Garry places THE TEACHER I NEED TO BE TO PASS THE COURSE, MY PREVIOUS TEACHERS and A COMPETENT TEACHER. Although technically in the top right hand quadrant, I would also place MY COLLEAGUES in this group as it is contained within this 'negative' cluster in the focus sorting diagram. These elements are associated with the construct poles *teaching for the sake of teaching, meeting quotas; lack of desire/lethargy with regards to development; no longer enjoys teaching; and too much emphasis on unimportant tasks and distractions, lack of focus*. This seems to summarise Garry's view of the more experienced teachers. In the bottom left quadrant Garry has placed THE TEACHER I WOULD FEAR TO BE and THE COMMUNITY OF PRACTICE and associated the construct poles *lack self-awareness; ambivalent to teaching tasks; marginally achieving the minimum competency level; and fear of change and development of role and community of practice*.

**Conclusion:** Garry's first narrative has illustrated that, during this initial stage of his professional practice, his construing about teaching and learning has been influenced by his, mainly negative, yet formative experiences as a student, particularly with regards to what Garry has come to regard as more 'academic' teaching. I believe there is also evidence in

the narrative of the significant influence of role models and mentors on Garry's construing. Although these role models and mentors seem to come from outside the classroom Garry has, nevertheless, be able to extrapolate a selection of their qualities to support his construing about teaching and learning. As the narrative develops there is further evidence of the increasing influence of Garry's peer groups on his practice (if not his construing) and Garry describes appropriating different teaching identities as part of the process of finding his 'self' in the classroom. These influences are starkly illustrated in Garry's construing during which he contrasts the positive of his mentors and peers with what he sees as the negative of his previous teachers, the community of practice, and the PGCE course.

Garry's narrative about teaching and learning appears to be supported by his construing. I have already linked his main construct theme, **awareness of self and the needs of others**, with both his experiences as a student and with his subsequent teaching approach. I further suggest that his second theme, **teacher motivation - the desire to improve and be challenged**, summarises Garry's overall attitude at this early stage in his teaching career.

Table 9 - Construct Ranking - Garry Interview 1

Construct	Cluster	KSAQ	Rating 1-10
<b>Exceeds the minimum competency level vs Marginally achieving the minimum competency level</b>	awareness of self and the needs of others	K/S	1
<b>Genuinely enjoying teaching vs No longer enjoys teaching</b>	teacher motivation - the desire to improve and be challenged	A	2
<b>Teaching to and for the benefit of the student vs Teaching for the sake of teaching, meeting quotas</b>	awareness of self and the needs of others	Q	3
<b>Intrinsically self-aware of personal attributes vs Lack of self-awareness</b>	awareness of self and the needs of others	Q	4
<b>Application to the teaching tasks vs Ambivalent to teaching tasks</b>	awareness of self and the needs of others	A/Q	5
<b>Too much emphasis on unimportant tasks &amp; distractions, lack of focus vs Focused on what is important, fundamentals</b>	awareness of self and the needs of others	A/Q	6
<b>Has a desire to improve and develop as a teacher vs Lack of desire / lethargy with regards to development</b>	teacher motivation - the desire to improve and be challenged	A	7
<b>Embraces future development in role and community of practice vs Fear of change and development of role and community of practice</b>		A	8



Table 9 shows how Garry ranked his initial constructs in order of importance. It is difficult to detect any patterns to Garry's construing at this point. As one might expect, Garry's most important constructs are dominated by the **awareness of self and the needs of others** theme. Whilst Table 9 provides an excellent illustration of the significance of teacher's attitudes and qualities in the way Garry construe teaching, I believe it is also noteworthy that, at this point, Garry's most important construct concerns the knowledge and skills he believes are required to meet the minimum competency level for teaching.

## 7.2 Interview 2

In his second narrative Garry continued to draw on his negative experiences of being a student, but these experiences no longer seemed to be the primary influence on his views of teaching and learning. However, it is illustrative of how this period had shaped Garry's thinking that he stated *'not being the teacher he has experienced in the past'* was positive (A97). Within the narrative Garry developed a clear hierarchy of influences (A83) from his mentors and role models at the top, through his peers to his professional education at the bottom.

*'Strongest influence err [pause] is undoubtedly the mentors, undoubtedly, then the peer group and then the PGCE'* (A83).

Indeed, Garry suggested that whilst mentors and his peer group had been able to change his practice his professional education programme had really only informed and confirmed his original views.

*'I think fundamentally it originates from my own experience as a learner, erm [pause] there is no change there at all, erm [pause] what's happened is whilst going through the PGCE process and being out there and teaching is, I've understood that, so I had opinions formed on observation with little understanding and now I have erm [pause] almost reassuringly I suppose to an extent erm [pause] either challenged or changed but for the most part hasn't changed but have a greater better understood erm [pause] why I hold those opinions and why my perspectives are in that way'* (A80).

The influence of Garry's peer group on his practice was significantly more pronounced in his second narrative and Garry now seemed more comfortable with peer observation and sharing of ideas.

*'Again, err [pause] one particular mentor erm [pause] just sort of epitomises erm [pause] the qualities and attributes of a good teacher erm [pause] and watching them teach and having been taught by them you can you can see what works. There is also another person in mind's eye as a mentor who has err [pause] some very practical, is very strong practically with lots of things like I've been able to learn from them, whether it be administration you know in an administrative sense, whether it's in sort of learning resources senses that sort of thing err [pause] and then equally then the next level from that is peer groups where we share best practice, my cohort particularly is very good at sharing best practice. Err [pause] we just gelled well early on we were a small group err [pause] we have all remained in contact and regularly share best practice err [pause] and that is not sort of something that's pushed upon us and I think that's probably why it's effective. Erm [pause] and then the next*

*stage being the PGCE I think the PGCE is extremely valuable for illuminating and explaining things, for me as we have already explored, explaining things like that I already suspected erm [pause] but in that way it's not, it has progressed but it has not changed necessarily erm [pause] from my actual practice' (Stanza 246-252).*

He was able to utilise different classroom and teaching strategies through *'trial and error'* to *'see what works'* (Stanza 246) in an effort to improve his classroom performance.

*'Erm [pause] trial and error; as with everything I've done in life to be honest. ...observation I do think observation is valid, is very useful, erm [pause] you know "monkey see monkey do" let's be honest we've been teaching for hundreds of years there is there is absolutely nothing more valuable than observation. Err [pause] but in the prescribed manner of the PGCE I don't think it's necessarily the right way of doing it but observation in general, periodically' (A98).*

There were several themes that emerged from Garry's second narrative. In the first few narrative elements, Garry was keen to talk about what appeared to be the increasing importance of, and frustration with, the administration and management of his practice. That Garry went on to describe himself as a *'PR person, low-level manager, negotiator and artist'* (A80) demonstrated how Garry's conception of his identity as a teacher had developed a new level of complexity over a 12 month period. A number of Garry's narratives described his general frustrations and fight to overcome these administrative hurdles and it appeared to me that demonstrating he was able to meet needs of the students, despite these barriers, was an important component of his narrative construction.

Garry also appeared to struggle throughout the narrative to articulate a consistent pedagogy. Despite stating that he preferred the *'student-centred'* and participative approach to language teaching that he described as *'setting the conditions'* (A68, A69), he often seemed to contradict this view by then describing teaching as trait-based; emphasising the contribution, qualities, and attitudes of the teacher and therefore leaning towards more of an acquisition-based view of learning and a more simple pedagogy (Fox, 1983).

*'I don't know if it has to be honest. ...I think teaching still err [pause] fundamentally is personality driven, erm [pause] you know you can have the most rigorous curriculum in the world, but a good, any teacher I believe, are worth their salt, is going to apply their own personality and err [pause] you know err [pause] deliver it in their own style so which is, which you know hopefully, if they are effective will be an effective style, erm [pause] so yeah I think it's entirely personality driven, erm [pause] I think it's still hugely about rapport and the effect rapport has on motivation erm [pause] yeah I don't think it's changed. Sorry' (A73).*

*'Yeah absolutely, yeah absolutely, absolutely, you know you can learn to be a teacher definitely but I think if you haven't got the first 10% already in you erm [pause] you'll just be an instructor I think that's the most, where I've seen, I've seen certainly'* (A74).

Indeed, the discussion of where the responsibility for learning lies (with the teacher or the student) was one that appeared a number of times during the narrative.

In the second Repertory Grid exercise, Garry was able to articulate ten constructs about the knowledge, skills, attitudes and qualities of a good teacher. At the conclusion of the exercise Garry was again asked to indicate which of the four aspects he believed each of his ten constructs were concerned with, accepting that each construct could be referring to more than one aspect. Figure 14 shows how Garry categorised his construing:

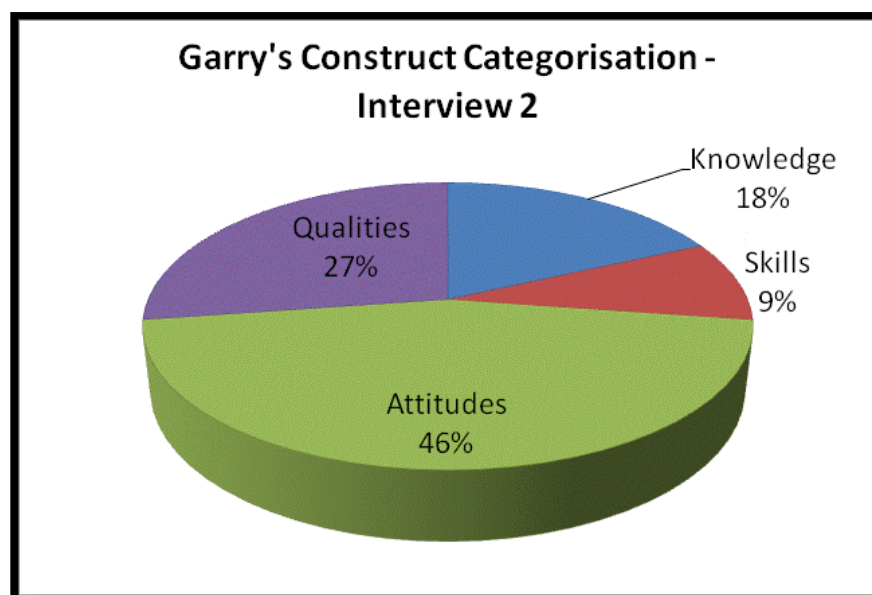


Figure 14 - Construct Categories - Garry Interview 2

Despite articulating a completely a different set of constructs and conducting the exercises 12 months apart, Table 10 shows that Garry's categorisation of his construing in the second Repertory Grid exercise remains remarkably similar to his first.

Table 10 - Construct Category Comparison - Garry Interview 1 against Interview 2

Category	% of associated constructs (Interview 1)	% of associated constructs (Interview 2)
Knowledge	9%	18%
Skills	9%	9%
Attitudes	46%	46%
Qualities	36%	27%

Once again, Garry's construing remained dominated by constructs associated with the attitudes and qualities of a teacher and may be illustrative of the dominance of a trait-based view of teaching that seems to underpin both of Garry's narratives.

Annex C (Figure 42) graphically shows the focus sorting and hierarchical clustering of Garry's construing. The construct dendrogram appears to be remarkably similar in profile to that of Garry's first Repertory Grid exercise whilst the element dendrogram looks to have fragmented into three or four element clusters suggesting the Garry may have developed a more nuanced or detailed understanding of his teaching context.

The element dendrogram shows that Garry still associates MYSELF with MY FUTURE SELF (95%), MY MENTOR (90%) and MY PEER GROUP (>85%). Whilst this is exactly the same cluster of elements found in the initial Repertory Grid exercise, the cluster is now more closely associated suggesting that this view has become more concrete over the last year. The remaining elements, which were grouped into a single loosely associated cluster in the first exercise, are now split into two more tightly associated clusters. In the first of these, A COMPETENT TEACHER and THE TEACHER I NEED TO BE TO PASS THE COURSE (>85%) are associated with THE COMMUNITY OF PRACTICE and MY COLLEAGUES (>80%). In the second, MY PREVIOUS TEACHERS are associated with THE TEACHER I WOULD FEAR TO BE. Once again, Garry seemed to have separated the elements into positive and negative categories and appeared to associate strongly with his peer group and mentor. Whilst he still seemed to want to distance himself from more experienced teachers Garry now makes a distinction between his previous teachers, which represent what Garry does not wish to become, and the 'competence' he associates with his colleagues and the wider community.

The organisation of the construct dendrogram is very similar to the initial Repertory Grid exercise. Once again there is one large and strongly associated cluster:

- Cluster 1 - contains six constructs: *has the ability to engage a classroom using different techniques and personality vs didactic teaching, just delivering lessons, not engaging the class; high standards, more rigorous, applies standards vs less rigorous approach to teaching, low standards; and exceeds the qualities and attitudes of a teacher vs meets the qualities & attitudes required to be teacher (>95%) with strives to have an effect on the output/performance of the learner vs delivers an effective lesson to the classroom (>90%); has breadth of knowledge and can utilise it to a high standard vs knowledge lacking, unable to utilise what they know (>90%); and better motivated, effective vs no passion, no drive, ineffective (>85%).*

And a second smaller but closely associated cluster:

- Cluster 2 - consists of a two construct cluster *strives to meet the changing requirements of the organisation by establishing broader knowledge vs has the minimum knowledge to be effective* and *strives for more, active CPD, over achieves vs has teaching skills to be effective & promote learning* (90%).

The least associated constructs were: *competitive, can do attitude, good communication skills vs just delivering, not forward thinking, surviving (>75%)* and *in depth, evolving and up-to-date knowledge vs just about keeps up to date with minimum knowledge, not latest (70%)*.

During the analysis of the Repertory Grid data, Garry was asked to name these groups of constructs in an effort to elicit what might be construed as a set of super-ordinate constructs or construct themes. Garry stated that the cluster 1 containing six constructs describes **personal attributes for teaching and the concept of being a good teacher**, construct cluster 2 describes the **basic knowledge and skills**.

A comparison of the construct themes elicited during the two Repertory Grid exercises shows that, although named differently, those elicited in the second interview appear similar to those in the first. The construct themes described in both interviews appear to be centred on the innate qualities and the motivation of the teacher; ideas reflected in both the narrative and Garry's categorisation of his construing. This illustrates my view that many of Garry's constructs elicited in Interview 2 appear to describe broadly the same components of teaching and learning that Garry describes in Interview 1. Indeed I would contend that this comparison of constructs, combined with the recurring themes within Garry's narratives, provide little evidence of any substantive change in Garry's construing about teaching and learning over the 12 month period.

Annex C (Figure 43) shows Garry's grid data arranged as a PCA graph. The two components plotted in the graph account for 87.5% of the variance in the data (79.2% + 8.3%) indicating that the plot is sufficiently accurate for analysis (Jankowicz, 2004). The graph shows that seven of Garry's ten constructs are contained in a tight fan shape around the first (horizontal) component. This was expected given the high variance figure for component 1 (79.2%). This densely packed fan shape seemed to broadly reflect Garry's trait-based view of the teacher with the constructs closest to the horizontal component describing the attitudes and qualities Garry associates with teaching.

The location of the elements with respect to the constructs appeared to replicate Garry's previous positive and negative groupings. Again, the right side of the component graph appeared to display the more positive side of Garry's construing. In the top right quadrant

Garry seems to associate MY FUTURE SELF most closely with the construct poles *has breadth of knowledge and can utilise it to a high standard and exceeds the qualities & attitudes of a teacher*. This may indicate the principal areas Garry feel he needs to develop. Moving away from the horizontal component further into the top right quadrant, Garry associates MYSELF and MY PEER GROUP with the construct poles *strives for more, active CPD, over achieves and competitive, can do attitude and good communication skills*.

The bottom right quadrant, which appears to represent Garry's 'positive' view of established teachers, contains MY MENTOR and, mirroring the first Repertory Grid exercise, also contains MY COLLEAGUES despite that fact that they form part of the more negative element cluster. Garry associates his mentor and colleagues with positive construct poles such as *high standards, more rigorous, applies standards; strives to meet the changing requirements of the organisation by establishing broader knowledge; better motivated, effective; strives to have an effect on the output/performance of the learner; in-depth, evolving and up to date knowledge and has the ability to engage a classroom using different techniques and personality*.

The left side of the graph, which seems to exhibit the less positive aspects of Garry's construing, is more difficult to analyse. The furthest elements from the vertical component (which seems to act as the positive/negative divide) are THE TEACHER I WOULD FEAR TO BE and MY PREVIOUS TEACHERS. Garry associates construct poles such as *didactic teaching, just delivering lessons, not engaging the class; delivers an effective lesson to the classroom; no passion, no drive ineffective; less rigorous approach to teaching, low standards; meets the qualities & attitudes to be a teacher; knowledge lacking, unable to utilise what they know and has teaching skills to be effect and promote learning*. I believe that these poles very effectively summarise Garry's feelings and narrative about his experiences with previous teachers and support why they represent the kind of teacher he wishes to avoid becoming.

*'...to give it a converse example I'm certainly not the teacher I, teacher I, I, I'm not the teacher I have experienced in the past, which is positive, erm [pause] I think I'm competent, I think I'm effective, I think I'm not where I want to be, I don't think I'm the best by any stretch, but I also don't think I'm worst, err [pause] I think I'm in the right place for now' (A97).*

The element THE COMMUNITY OF PRACTICE is located close to the vertical component. The element dendrogram (Figure 32) shows this element is clustered with MY COLLEAGUES and this cluster is the closest to the cluster of 'positive' elements. Despite this, Garry associated THE COMMUNITY OF PRACTICE with the construct pole *just delivering, not forward thinking, surviving* which revealed Garry's fairly negative view of his

community of practice. The most difficult elements to characterise in this graph are A COMPETENT TEACHER and THE TEACHER I NEED TO BE TO PASS THE COURSE. They appear to share similar construct poles as THE TEACHER I WOULD FEAR TO BE and MY PREVIOUS TEACHER but their positions relative to these elements may indicate that they do not share these negative construct poles to the same extent. This view is supported if one considers the element dendrogram (Figure 42) to be displaying the elements in a continuum from positive to negative.

**Conclusion:** As I have argued, there appears to be a consistency in Garry's construing, captured in the two Repertory Grid exercises and reflected in the recurring themes within his narratives. Garry remains influenced by the critical (but negative) incidents in his early experiences as a student and this may have resulted in the development of his polarised views of 'positive' and 'negative' influences. Over the 12 month period between interviews, however, Garry seems to have become more accepting of, and influenced by, his peers and colleagues and this may have resulted in a slight shift in his polarised view. That he now seems more willing to share practice and observe those who, 12 month previously, he may have categorised negatively is evidence of this change.

Despite this general consistency, Garry does seem to be developing a more complex teaching identity which reflects his increasing understanding, not just of teaching and learning, but of the wider remit that exists for him inside and outside of the classroom. Garry's second narrative seems to demonstrate the influence of his own practice on his thinking. It appears particularly important to Garry that he is seen as a teacher that makes a positive contribution to both his students and his community of practice.

Table 11 shows how Garry ranked his initial constructs in order of importance. Once again, Table 11 provides an excellent illustration of the extent to which Garry's construing about teaching is dominated by the qualities and attitudes of the teacher. Garry's most important constructs are all located in the **personal attributes for teaching and the concept of being a good teacher** theme which seems to corroborate this view. Although subject knowledge remains important for Garry, it lacks the immediacy of the link to teaching competence that was seen in Table 9 and is therefore not rated as carrying the same level of importance in Interview 2.



Table 11 - Construct Ranking - Garry Interview 2

Construct	Cluster	KSAQ	Rating 1-10
<b>No passion, no drive, ineffective vs Better motivated, effective</b>	personal attributes for teaching and the concept of being a good teacher	Q	1
<b>Has the ability to engage the classroom using different techniques and personality vs Didactic teaching, just delivering lessons, not engaging the class</b>	personal attributes for teaching and the concept of being a good teacher	Q	2
<b>Has breadth of knowledge and can utilise it to a high standard vs Knowledge lacking, unable to utilise what they do know</b>	personal attributes for teaching and the concept of being a good teacher	K	3
<b>Meets the qualities &amp; attitudes required to be a teacher vs Exceeds the qualities and attitudes of a teacher</b>	personal attributes for teaching and the concept of being a good teacher	Q/A	4
<b>Strives to have an effect on the output/performance of the learner vs Delivers an effective lesson to a classroom</b>	personal attributes for teaching and the concept of being a good teacher	A	5
<b>Less rigorous approach to teaching, low standards vs High standards, more rigorous, applies standards</b>	personal attributes for teaching and the concept of being a good teacher	A	6
<b>In-depth, evolving &amp; up-to-date professional knowledge vs Just about keeps up with minimum knowledge, not latest</b>		K	7
<b>Competitive, can do attitude &amp; good communication skills vs Just delivering, not forward thinking, surviving</b>		A	8
<b>Has the teaching skills to be effective &amp; promote effective learning vs Strives for more, active CPD, over achieves</b>	basic knowledge and skills	S	9
<b>Strives to meet the changing requirements of the organisation by establishing broader knowledge vs Has the minimum knowledge required to be effective</b>	basic knowledge and skills	A	10

Garry's view on the most influential factors in his professional learning and development as a teacher can be seen in Table 12.

Table 12 - Ways of Learning to Teach in PCET - Garry

Ways of Learning to Teach	Level of Influence
Simply doing the job of teaching in the PCET environment	30%
The experience of being taught as a student	25%
Workshops and conferences	0%
Conversations with and observation of colleagues in the department	10%
Completion of a formal award-bearing course	0%
Reading about teaching and learning	5%
Guidance from a mentor	30%
Online learning	0%

Table 12 shows that Garry appears to place the highest value on the opportunity to engage directly with students in classroom. During the exercise Garry added that this represented *'the opportunity to teach "hands on" rather than be taught'*. Whilst Garry had mentioned his teaching practice regularly, he had not appeared to place as great an emphasis on it in his narrative as he did in this final exercise.

Unsurprisingly, Garry also indicated that the advice, support and guidance he received from mentors and the experience of being taught as a student were also influential factors in his professional learning. Indeed, the figures suggest that these three combined factors account for 85% of the influence in Garry's professional learning as a teacher.

Perhaps more surprising was the small rating Garry allocated to the influence of colleagues in his department as they appeared, particularly in his narrative, to be an increasing influence on his practice. Even given Garry's less than enthusiastic comments about the PGCE, it was also a surprise that Garry had indicated the completion of a formal, award-bearing course had no influence on his professional development. That he credited 'hands on' teaching as being influential, but had separated this practical element from the more academic requirements of his professional education, is interesting.

### 7.3 Trajectory

In the first interview Garry illustrated his position and trajectory in terms of his conformity and relation to the community of practice which Garry placed at the centre of the target. Garry's initial position is indicated by the dot closest to the centre of the target in Figure 15. Interestingly, Garry sees his trajectory as moving away from conformity in relation to the community – in essence Garry wanted to conform less, not more, to the community as he felt 'more comfortable' in this position. Garry summarises this view as a compromise between *conformity vs autonomy* and *appropriate practice vs best practice*. Once again, these seem to be aspects of Garry's construing about teaching and learning and further demonstrate how graphical approaches can be utilised to elicit constructs (Denicolo & Pope, 2001; Cabaroglu & Denicolo, 2008).

Garry stated that ultimately he retains control of his trajectory by balancing his personal needs with the needs of the community. However, Garry acknowledged that the community has significant influence over his future roles

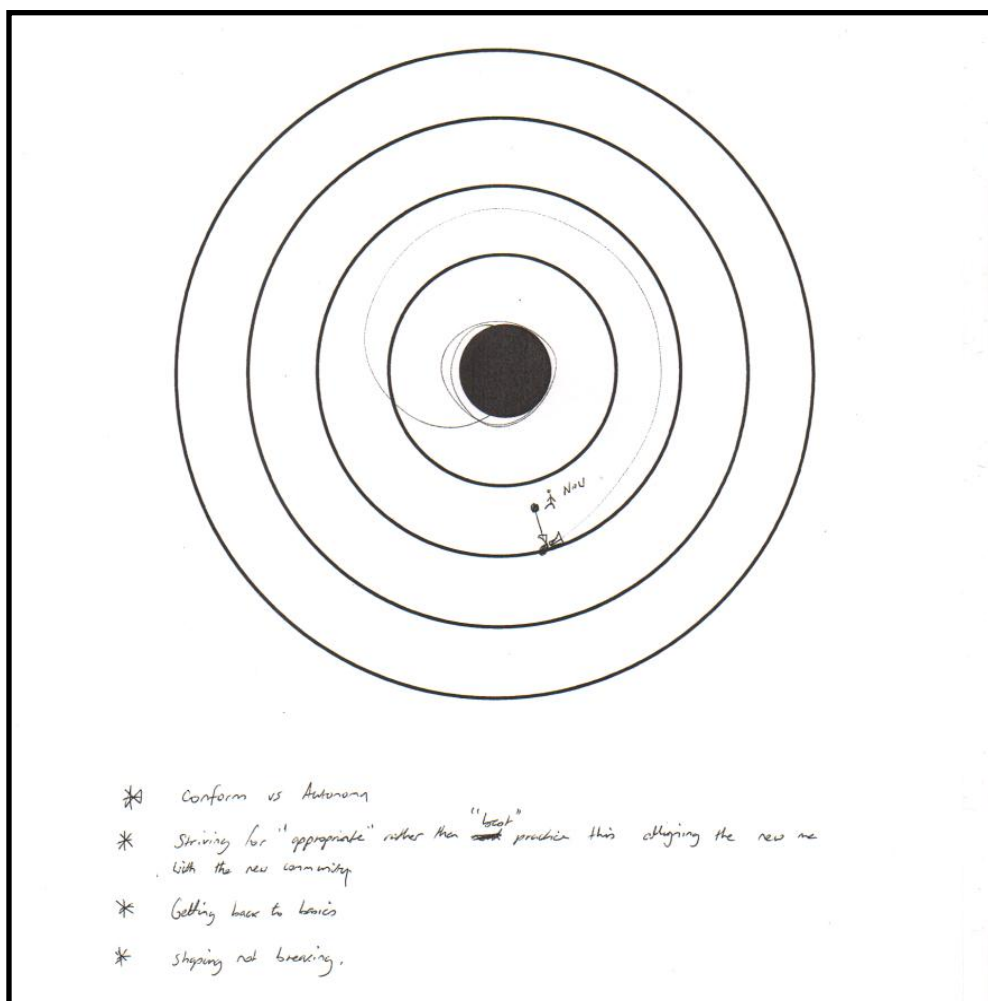


Figure 15 - Trajectory Target - Garry (Interview 1)

In Garry's second interview he articulated his position and trajectory within the community of practice in a similar fashion. Garry positioned himself at a very similar point to the first interview (indicated by the dot in Figure 15) and, once again, illustrated his trajectory as one moving away from the community. This time however, Garry explained that this was not a trajectory aimed at conforming less to the community but rather illustrated his wish to develop and improve practice faster than the community can. Therefore, his trajectory illustrated 'acceleration' rather than a deliberate movement away from the practice of others. Garry further suggested that this was because the constraints and size of the community suffocated effectiveness and progress because it was slow to react and change.

Garry maintained he had a 'great deal' of influence over his trajectory because he was not going to 'conform for the sake of it' even though he felt some pressure to do so. However, he suggested that it was a supportive line manager that allowed him to feel in control of his trajectory and acknowledged that this may change in the future.

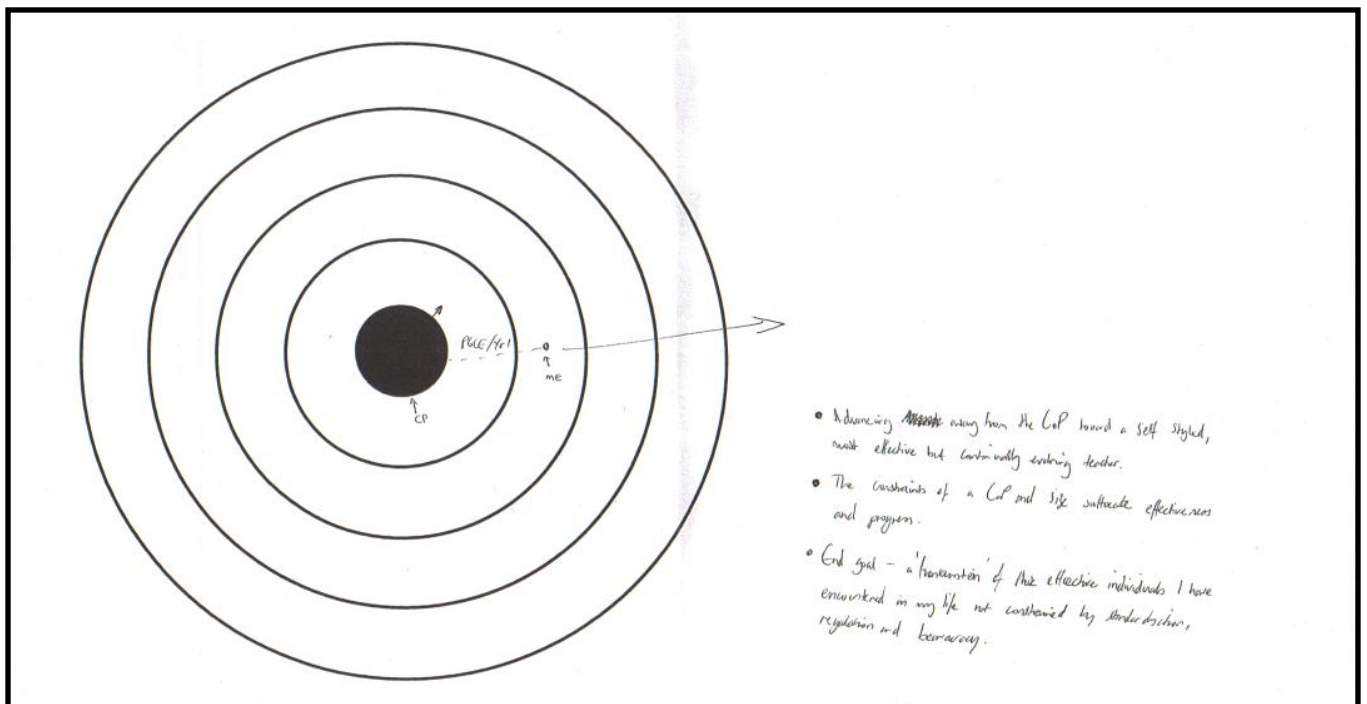


Figure 16 - Trajectory Target - Garry (Interview 2)

## 8 CASE STUDY 4: PAUL

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### 8.1 Interview 1

During this initial narrative, Paul appeared to find it difficult to articulate his thoughts and ideas about teaching and learning with any level of sophistication. During several of the discussions I became aware that this may have been the first time that Paul had considered, in any great depth, his role as a teacher or his views about teaching and learning. Indeed, Paul appeared to use a number of linguistic devices to provide him with time to consider and describe what, until this point, may have been pre-verbal constructs. Subsequently, it was difficult to establish with any real certainty what had influenced Paul in developing his, albeit vague, ideas about teaching and learning.

Paul's illustration of his family ties to the teaching profession (Stanza 69-75) is the one instance when he clearly made links between his, in this case negative, experience and his own thoughts about teaching and learning.

*'My mum was a teacher, well she is a teacher, and it's strange I always said when I was younger that I would never want to be a teacher, and that's because she's always come back from school, she worked in sort of approved schools and special need schools and so she was complaining about how she was overworked, which I think was a common theme for all teachers, and but then she also got to do all the physical aspects of it where there were argumentative kids so she'd come back with bruises and stuff like that. So, you know, as I have always portrayed it erm [pause] teachers generally have got a rough deal, and the amount of work they have to do in class and then also preparation and erm [pause] and marking and stuff, I know that's like they don't really get the kind of appreciation they deserve' (Stanza 69-71).*

In all other cases he appeared unwilling or unable to identify and narrate the critical incidents that might have influenced him as a teacher and so appeared not to have been strongly influenced by others.

The one area that Paul seemed to be more coherent and able to construct a detailed picture was in his characterisation of himself as a student.

*'[long pause] ...not, not an individual sort of situation but a couple of teachers kind of took a disliking to me at different stages just because, you know, I think that's the kind of student I was and, potentially the kind of student that I would dislike, I mean I'm a teacher erm [pause]...'* (Stanza 47).

*'In really quite a short attention span and so I can get, whilst I finished the work very quickly and they would just get frustrated that I was very err [pause] act up or distract other students and just get silly, but...'* (Stanza 48).

During the collaborative interview, I hypothesised that Paul was most strongly influenced as a teacher by his own behaviour as a student and that this drove both his pedagogy and his expectations of the students he taught. This view led to what I termed, rather crudely, as a Paul's 'crowd control' approach to teaching which centred on classroom management. It should be understood however, that Paul may, in reality, have been highly influenced as a teacher by other experiences, peers or mentors but was simply unable or unwilling to describe these in any depth during the interviews. Whilst Paul agreed that he was influenced by his own behaviour as a student he appeared less convinced that this had led him to adopt 'defensive' teaching strategies.

During the initial interview Paul appeared sceptical of the value of his professional education, with any benefits being derived only from the credibility that the qualification brought (Stanza 95-96).

*'...it's the mark against which we are all measured and if you don't make that mark then you distinguish yourself as a bad teacher and an unprofessional teacher. So in that respect it's something to be measured against, but since we are already doing the work it shouldn't prove a problem for anyone who is already a confident teacher, and so in that respect it does add value'* (Stanza 95-96).

During the later collaborative interview, Paul commented that he now saw greater value in the course but, once again, was unable to provide an illustration of this. It was noteworthy that, in his professional practice, Paul had not experienced the kind of apprenticeship model offered by Lave and Wenger (1991) and, as a full participant in the activities of his department's teaching activities, found it difficult therefore to reconcile this with his role as a 'student'.

I found it particularly interesting that Paul had not identified any role models or mentors from within his peer group of colleagues.

*'I mean it's, you know, elements of having seen other people I think "ok that I'd like to emulate, and that I'd like to emulate from over there", and I think to want to be just like someone else would be kind of you know it wouldn't be individual and, you know, whilst they might be the most brilliant teacher it's something that you potentially have to work very hard to alter yourself as oppose to making the best of your lot and, so, yeah...'* (Stanza 100-101)

This would appear to limit the 'possible selves' available to Paul for behaviour-modelling and therefore reduce his ability to experiment with different professional identities.

In the Repertory Grid activity, Paul was able to articulate ten constructs about the knowledge, skills, attitudes and qualities of a good teacher. Paul found the Repertory Grid activity very challenging and found articulating ten different constructs about teaching and learning difficult. In my field notes I recorded that Paul seemed 'unable to show any range or depth in his construing'<sup>12</sup>. At the conclusion of the activity, Paul was asked to indicate which of the four aspects he believed each of his ten constructs were concerned with, accepting that each construct could be referring to more than one aspect. Figure 17 shows how Paul categorised his construing.

As Figure 17 Shows, Paul categorised 69% of constructs as being concerned with the attitudes and qualities of a teacher. This categorisation appeared to be at odds with Paul's narrative in which he suggested a view of teaching centred on the development and practice of teaching skills.

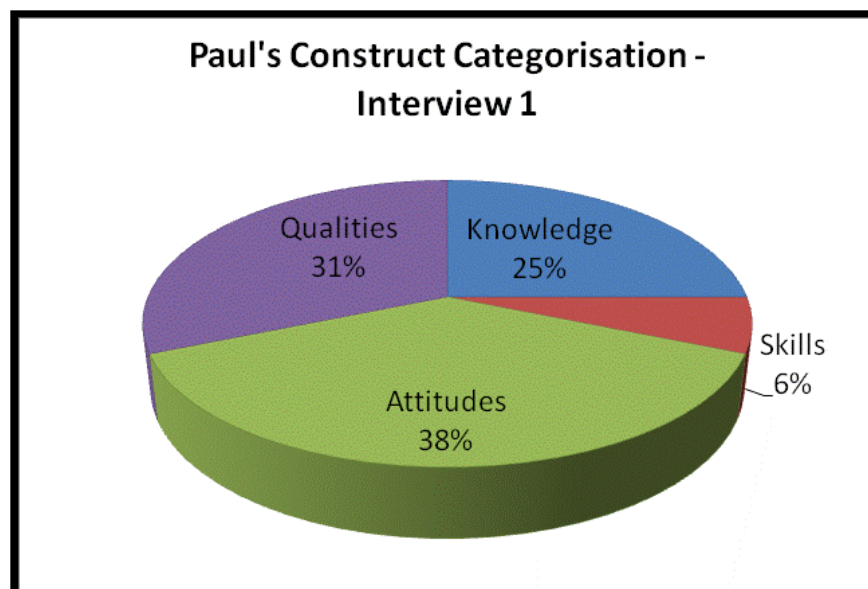
*'Yeah, I think your knowledge of your subject areas is only really a small part of it, you need to be able, you need to learn or understand how to interact with people, how to respond to people because at the end of the day if you're just standing at the front of the class talking, speaking didactically then you're, you're never sure what people are taking on so you need to have an understanding of other people to understand how they learn and how, if they are not responding to you one way how you could alter it and deliver....'* (Stanza 62-64).

However, Paul appears to infer during the narrative that the development of teaching skill is in some way able to make up for a lack of innate qualities and therefore may still maintain a trait-based view of the teacher.

*'Yeah, I mean some people, it's the same as everything else, some people are inherently and naturally good at it and other people learn it more slowly, erm [pause]. But in order to be a good teacher and an effective teacher you need to understand your students and understand how they learn, and if they are not learning in one respect then in one way how you can alter it and, you know, it's something that for the first however many courses and however many years it may be something that you have to, you know, mentally you know click into gear and with practise it will become natural. You hopefully get an impression from the outset'* (Stanza 65-68).

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<sup>12</sup> Field notes recorded 10 Jun 2011.



**Figure 17 - Construct Categories – Paul Interview 1**

Annex D (Figure 44) graphically shows the focus sorting and hierarchical clustering of Paul's construing. The element dendrogram shows that Paul links MYSELF and MY PEER GROUP with 100% association inferring that he sees himself an illustrative representation of his cohort. Paul closely associates MY COLLEAGUES and THE COMMUNITY OF PRACTICE (>95%) with MY MENTOR (>95%) and MY FUTURE SELF, to form a small cluster which seems to offer an acknowledgement that he looks to his more experienced colleagues for his development needs despite suggesting the contrary in his narrative (Stanza 100-101). A more loosely associated cluster consists of MY PREVIOUS TEACHERS and A COMPETENT TEACHER (>85%) with THE TEACHER I NEED TO BE TO PASS THE COURSE (>80%). As we shall see, whilst this cluster appears to represent the more negative side of Paul's construing, it is still some distance from the element THE TEACHER I WOULD FEAR TO BE. This suggests that whilst Paul is able to position the elements within a form of positive/negative continuum he does not associate any one of the elements with the kind of teacher he would fears to be.

The construct dendrogram is similarly arranged into a number of small clusters.

- Cluster 1 - A three construct cluster containing the constructs *not happy with second best or base minimum vs coasting; always striving to better themselves, competitive vs does not strive to better oneself, no competitive spirit* and *will go the 'extra mile', can go to about anything vs estranged teacher, doesn't know or understand students, lost touch with them* (>90%).



- Cluster 2 - A two construct cluster containing the constructs *has overall professionalism vs lethargy – disaffected, lacking drive* and *has broad knowledge around the environment of PD and careers vs ignorant of PD need & career development of others* (95%).
- Cluster 3 - A three construct cluster including *commitment to personal and other people's development vs not concerned for the personal development of others; has passion and motivation to deliver education vs automaton – going through the motions* and *motivated, passionate vs disaffected, old, bitter, crusty, lost passion* (>95%).

Construct clusters 2 and 3 appear to be linked at the construct *knows the subject matter and delivers it confidently vs ill informed & not confident with the subject*. The least associated construct *has developed knowledge and skills through experience vs has less developed knowledge & skills* appears to be the only construct which does not refer to or describe some form of innate quality or attribute of the teacher.

During the analysis of the Repertory Grid data, Paul was asked to name these groups of constructs in an effort to elicit what might be construed as a set of super-ordinate constructs or construct themes. Once again, Paul found categorising his construing very challenging but was eventually able to develop some construct themes. Paul stated that construct cluster 1 describes the **personal development of the teacher**, construct cluster 2 describes **being professional**, and construct cluster 3 describes the **teacher's passion, motivation and inspiration**. Given the extent to which Paul described the requirement to develop and practise classroom knowledge and skills in his narrative (Stanza 62-64), it is something of a surprise that his construct themes are dominated to such an extent by a trait-based view of teaching and learning. However, as Figure 17 highlights, Paul had already suggested that 69% of his construing referred to the attitudes and qualities of a teacher. This may further indicate that because Paul struggled to articulate and illustrate his views, his narrative may not provide the most accurate window on his construing.

Annex D (Figure 45) shows Paul's grid data arranged as a PCA graph. The two components plotted in the graph account for 94.4% of the variance in the data (87.4% + 7.0%) indicating that one plot is sufficiently accurate for analysis (Jankowicz, 2004).

The graph shows Paul's constructs arranged in a tight fan shape around the first (horizontal) component. This is the expected arrangement when the first component accounts for a high degree of variance (87.4%). Analysis of the construct themes shows that themes 2 and 3

**being professional**, and **passion, motivation and inspiration** are particularly tightly clustered either side of the first (horizontal) component.

The location of the elements with respect to the constructs is worth further analysis. The right side of the component graph appears to display the more negative side of Paul's construing. In the top right quadrant Paul has placed the construct poles *has less developed knowledge and skills; ill-informed and not confident with the subject; ignorant of PD need and career development of others and lethargy – disaffected, lacking drive*. Interestingly, Paul does not place any elements within this quadrant suggesting that he does not necessarily associate these construct poles with anyone in particular. In the lower right quadrant Paul associates the construct poles *estranged teacher, doesn't know or understand students, lost touch with them; coasting; does not strive to better oneself, no competitive spirit; disaffected, old, bitter, crusty, lost passion; automaton - going through the motions and not concerned for the personal development of others* with MY PREVIOUS TEACHERS, THE TEACHER I NEED TO BE TO PASS THE COURSE, A COMPETENT TEACHER and THE TEACHER I WOULD FEAR TO BE. It should be noted however that all of the constructs lie very close to the horizontal component and therefore it could be argued they are representative to some extent of all the (negative) construct poles on the right side of the principal component graph. Equally, the element MY PREVIOUS TEACHERS is located in close proximity to the horizontal component indicating generally low levels of association with the right side of the graph.

The left side of the graph expresses Paul's more positive construing. The constructs on this side are much more tightly clustered around the horizontal component indicating how little variation there is in Paul's construing. This also rather weakens the quadrant-based analysis for the left side of the graph. In the top left quadrant Paul placed MYSELF and MY PEER GROUP (in the same position) and MY COLLEAGUES and associates them, to some extent, with the construct poles *always striving to better themselves; not happy with second best or base minimum; commitment to personal and other people's development; has passion and motivation to deliver education and motivated, passionate*. In the bottom left quadrant Paul associates MY MENTOR, THE COMMUNITY OF PRACTICE and MY FUTURE SELF with the construct poles *has overall professionalism; has broad knowledge around the environment of PD and careers; knows subject knowledge and delivers it confidently and has developed knowledge and skills through experience*. The construct pole *will go the extra mile, can go to about anything* sits directly on the horizontal component. The tight clustering of the constructs around the horizontal component means that, in reality, all the elements grouped around this component (such as MY MENTOR, THE COMMUNITY OF PRACTICE

and MY COLLEAGUES) are associated with these constructs whether they are located in the top or bottom quadrant.

It was particularly interesting to note the Paul's positioning of the elements MYSELF and MY FUTURE SELF. As well as the positive construct poles highlighted above, Paul also seems to associate MYSELF with the rather more negative construct pole *has less developed knowledge and skills*. He associates MY FUTURE SELF with the construct poles *knows the subject matter and delivers it confidently* and *has developed knowledge and skills through experience*. This appears to suggest that whilst most of Paul's construing is concerned with the attitudes and qualities of the teacher his own future development is centred more on the increased subject knowledge and teaching skills. This view seems to support Paul's narrative (Stanza 68) where he expresses a view that he is not a 'natural' teacher but is able to overcome this by developing his knowledge and skills.

**Conclusion:** Paul's initial narrative appears to illustrate that, at this early stage in his professional practice, his constructs about teaching and learning are influenced primarily by the image he holds of himself as a student. Whilst reflecting on his education Paul was able to highlight several individuals that he believed to be influential, yet his narrative was unable to clearly reveal how his ideas about teaching and learning had been shaped by these role models. However, by viewing teaching through the prism of his student experience, Paul's subsequent expectations of student behaviour may be the key factor that is driving his classroom approach.

Paul's narrative and supporting constructs require some measure of interpretation. During the initial narrative Paul's view of teaching and learning appeared to be centred on a knowledge and skills-based approach. However, his individual constructs and construct themes appear to focus more on a trait-based view of teaching. I believe that it is Paul's lack of confidence in his innate teaching ability that leads to this apparent contradiction. In his narrative, I contend Paul is suggesting that whilst he believes that natural teaching is fundamentally about the attitudes and qualities of the teacher, achieving high levels of knowledge and skill in the classroom through practise is another way to make his teaching at least appear natural.

Finally, Paul's apparent lack of any form of workplace 'apprenticeship' as a beginning teacher may be shaping both his view of the PGCE course and his relationship with his immediate peers, colleagues and mentors. Indeed, by immediately becoming a full participant in the activities of his department, Paul is not only finding it difficult to reconcile this with his identity as a student or beginning teacher, he seems to be denied the opportunity to observe a range of 'possible' identities with which to experiment. As a 'full'

teacher, Paul seems to view both the PGCE and the use of mentors as superfluous to his day-to-day activities.

Table 13 shows how Paul ranked his initial constructs in order of importance. Whilst Paul's constructs are not obviously grouped it is interesting to note that his four most important constructs are all concerned in some way with 'teacher qualities'. This seems to support the view that despite a narrative centred on his need to develop subject knowledge and classroom skills Paul may indeed maintain a trait-based view of the teacher.

**Table 13 - Construct Ranking - Paul Interview 1**

<b>Construct</b>	<b>Cluster</b>	<b>KSAQ</b>	<b>Rating 1-10</b>
<b>Will go the extra mile, can go to about anything vs Estranged teacher, doesn't know or understand students, lost touch with them</b>	personal development of the teacher	Q	1
<b>Commitment to personal and other people's development vs Not concerned for personal or development of others</b>	teacher's passion, motivation & inspiration	Q/K	2
<b>Has passion and motivation to deliver education vs Automaton, going through the motions</b>	teacher's passion, motivation & inspiration	A/Q	3
<b>Not happy with second best or bare minimum vs Coasting</b>	personal development of the teacher	Q/A	4
<b>Knows subject matter and delivers it confidently vs Ill-informed and not confident with the subject</b>	2&3	K	5
<b>Has less developed knowledge and skills vs Has developed knowledge and skills</b>		K/S	6
<b>Has a broad knowledge around the environment of personal development and careers vs Ignorant of PD needs &amp; career development of others</b>	being professional	K/A	7
<b>Always strives to better themselves, competitive vs Does not strive to better oneself, no competitive spirit</b>	personal development of the teacher	A	8
<b>Has overall professionalism vs Lethargy, disaffected, lacking drive</b>	being professional	Q/A	9
<b>Disaffected, old, bitter, crusty, lost passion vs motivated, passionate</b>	teacher's passion, motivation & inspiration	A	10

## 8.2 Interview 2

Paul's second narrative provides some evidence of a change in thinking that appears to have influenced his views about teaching and learning. In the first interview Paul had highlighted his status as a full participant in the activities of his department and he seemed to find it difficult to reconcile this with his parallel status of beginning teacher and student. This may have led to Paul's rejection of the PGCE course and use of role models – neither of which he viewed as required by a 'full participant'. In his second narrative, and during the collaborative analysis interview, Paul admitted that he had rather underestimated the difficulties of learning to become a teacher, as well as the pace and the expectations of professional practice (A50).

*'Yeah maybe last year I was quick to palm it off and say "yeah anyone can teach" it's just one of those things you just need a bit of practise in the classroom, but yeah I think the PGCE course has made me aware of the nuances the technicalities the complexity of it' (A50).*

Paul commented that there was little time for reflection as part of this professionalising process (A60) and this may be a result of his full participant status.

*'...it's getting there erm [pause] if we had more time for the CPD aspect of, sort of element, and also for reflection then I think I would continue that [background noise] one of the things that's the nature of the job is that we don't necessarily get the appropriate amount of time for that CPD and reflection' (A60).*

As result, Paul seemed to have initially 'internalised' this development process drawing primarily on his own experiences as a student and as beginning teacher in the classroom. However, Paul's narrative suggested that, as he realised he was not yet equipped to fill the role of a full participant, he had come to appreciate resources such as the PGCE course and his peers in a way not seen in his first narrative.

There is some evidence in the second narrative that Paul was beginning to look to beyond his own experience towards his colleagues to support the development of his ideas about teaching and learning. Indeed, his narrative provides limited examples of peer-observation;

*'It's through observation here, feedback from other observations of my practice and you know those are the two main things obviously the essays that I write for the PGCE ask us when we are reflecting on other people's practice is to observe for specific things and that was one of the things that I was specifically looking at that had been picked up in my practice before' (A71).*

*'the sharing of practice'; (Stanza 115-116)*

*'Erm [pause] I err [pause] you know deliver differently on the Dari course and introduced a few more different erm [cough] different exercises and basically again on shared practice and so on chatted with another guy who teaches on that course and we shared resources and hopefully made my teaching better it was all about giving people more that they can take away and use continue to use after the more formal learning process erm [pause]'* (Stanza 115-116).

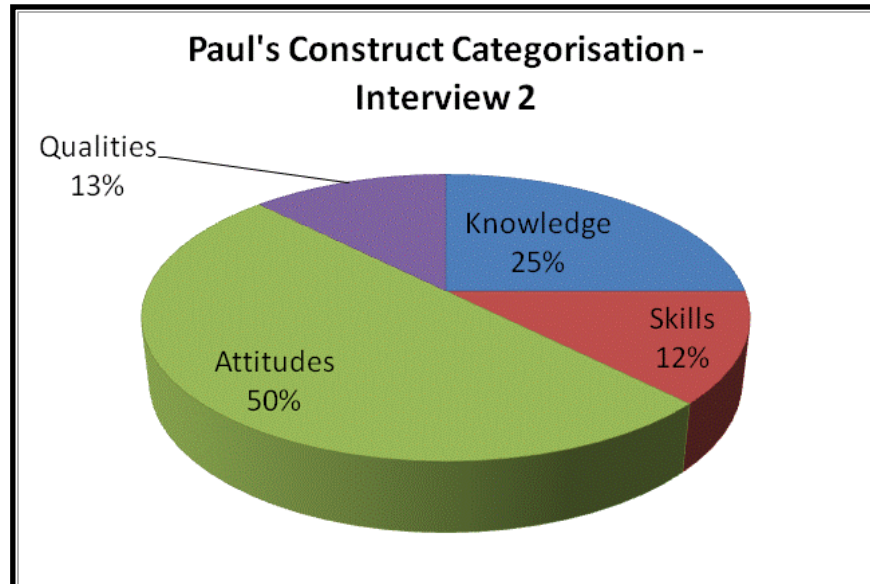
As well as the willingness to adopt and assess different classroom approaches.

*'Like I mentioned before based on some feedback and observations which are all part of the PGCE course erm [pause] I'd like to think that I've become more professional erm [pause] I've been more open to sort of trying, experimenting in the classroom trying new things [cough] stepping out of my comfort zone a bit and I think that's having developed an awareness of sort of students as not sort of terrifying individuals they are open to change and us trying new things as well. Whereas before, quite new in post, I was just trying to sort of just play the party line and erm [pause] sorry tow the party line and do it by the book whereas now I am more open to putting my flair, allowing my personal stamp on what I'm teaching'* (A62).

However, Paul is typically unable to provide concrete examples of how this has impacted on his thinking or practice and appears to find narrating his developing experience challenging. It is difficult therefore to assess the extent to which Paul is engaging with more external forms of influence as a method of expanding, developing and assessing his own view of teaching and learning, or is simply developing a way of ensuring his compliance with the practices of the community - something that he now seems to value.

*'I think yes it's about adopting that community and also yeah having that ability to, you know, break that social boundary potentially between yourselves and the students you, you've got to put yourself on the line a little bit for them if you are expecting them to present their ideas and their thoughts on a matter...'* (A64).

In the second Repertory Grid exercise, Paul proved even less able to articulate his constructs about the knowledge, skills attitudes and qualities of a good teacher offering only six constructs. At the conclusion of the activity, Paul was asked to indicate which of the four aspects he believed each of his six constructs were concerned with, accepting that each construct could be referring to more than one aspect. Figure 18 shows how Paul categorised his construing:



**Figure 18 - Construct Categories - Paul Interview 2**

As Table 14 shows, the majority of Paul's construing in interview 2 appeared to be concerned with the attitudes (50%) and the knowledge (25%) of teachers. There also appears to be a shift in Paul's construing away from teacher qualities towards teacher attitudes. However, given the small number constructs elicited in Paul's second Repertory Grid activity and therefore the small number of construct categories the significance of the data is questionable.

**Table 14 - Construct Category Comparison - Paul Interview 1 against Interview 2**

Category	% of associated constructs (Interview 1)	% of associated constructs (Interview 2)
Knowledge	25%	25%
Skills	6%	12%
Attitudes	38%	50%
Qualities	31%	13%

Annex D (Figure 46) graphically shows the focus sorting, and hierarchical clustering of Paul's construing. The element dendrogram appears to be structured differently than that in Paul's initial graph and may indicate a change in the way Paul construes his relationships with others. The construct dendrograms, despite a smaller number of different constructs, appear to be arranged in a similar fashion to the first graph.

The element dendrogram shows that whilst Paul closely associates MYSELF and MY PEER GROUP (90%) this is not the 100% association seen in the first graph and may indicate that Paul is beginning to see differences between his own thinking and that of his peers. Also

closely associated are MY COLLEAGUES and THE COMMUNITY OF PRACTICE (90%), and MY PREVIOUS TEACHERS (>85%). These elements are then associated with A COMPETENT TEACHER (>85%) to form a cluster of six elements. This cluster shows that Paul has changed his construing seeing himself as part of a cluster that includes more experienced teachers. Interestingly, Paul has placed MYSELF and MY PEER GROUP nearer to what might be considered the aspirational cluster of MY FUTURE SELF and MY MENTOR effectively swapping places with the elements THE COMMUNITY OF PRACTICE and MY COLLEAGUES. The graph shows that this main cluster of elements sits between the aspirational cluster of MY FUTURE SELF and MY MENTOR and the cluster to avoid comprising THE TEACHER I WOULD FEAR TO BE and THE TEACHER I NEED TO BE TO PASS THE COURSE. This may indicate the Paul now sees himself as part of the 'community' containing both his peers and colleagues.

In a different arrangement to Paul's first graph, appears to be one large construct cluster.

- Cluster 1 – A five construct comprising *has developing knowledge of what makes a good teacher, proactive vs lethargy, doing the minimum required to get to competent status; aware of broader aspects of being a teacher, not just teaching, bigger picture stuff vs too focused on specifics of being a competent teacher; learns through others' experience vs avoiding learning on the basis of avoiding what you fear to be; focus on community of practice vs focus on professional status and aware of the importance of personal qualities in personal development vs focus on the knowledge of teaching/subject* all associated at 90%.

The sixth construct, *has professional status, recognised qualification vs still training, unqualified* sits in comparison to this larger construct cluster. That the majority of Paul's constructs are, once again, clustered into a single large group may highlight that Paul finds exposing the detail of his construing difficult and that these are constructs are essentially components of the same construct theme.

During the analysis of the Repertory Grid data, Paul was asked to name the cluster of five constructs to elicit the super-ordinate construct or construct theme. Once again, Paul found this exercise extremely problematic. Unable to name the whole cluster, Paul suggested that the two constructs *focused on community of practice vs focus on professional status and aware of the importance of personal qualities in personal development vs focus on the knowledge of teaching/subject* referred to a **focus on the community of practice**. Paul suggested that these two constructs also described the importance of **personal qualities** but they are only important to the extent that they relate and tie into your experiences of being in



the community. Paul suggested that the three remaining constructs were something to do with **professionalism**, but he was unable to be more specific.

Despite Paul's difficulty in articulating and then categorising his construing in Interview 2, it is possible to pick out some similarities with the construct themes he identified in Interview 1. Whilst a direct comparison of the themes and associated constructs may not be valid in this case there is clearly some continuity in Paul's construing around the concept of professionalism and 'being professional', as well as themes centred on the qualities and development needs of teachers.

Annex D (Figure 47) shows Paul's grid data arranged as a PCA graph. The two components plotted in the graph account for 91.4% of the variance in the data (84.3% + 7.1%) indicating that the plot is sufficiently accurate for analysis (Jankowicz (2004)).

The graph shows that five of Paul's constructs are contained in a tight fan shape around the first (horizontal) component. This was expected given the high variance figure for the first component (84.3%). As the construct dendrogram indicated, this densely packed grouping reflects the five-construct cluster that Paul categorised loosely as referring to professionalism, the community of practice, and the qualities of the teacher.

The locations of the elements with respect to the constructs shows that Paul is construing the right side of the component graph as containing the more negative poles of his constructs and that left side contains the more positive construct poles. The more positive and aspirational elements MY FUTURE SELF and MY MENTOR sit furthest to the left as they did in Interview 1. These elements appear to be most closely related to the two construct poles that represent the theme Paul described as **personal qualities** with a **focus on the community of practice**. MY COLLEAGUES and MYSELF also appear to be associated with the more Paul's more positive constructs, close to the construct poles he has described as representing a **professionalism** theme. Sitting on or close to the vertical component are MY PEER GROUP, THE COMMUNITY OF PRACTICE and MY PREVIOUS TEACHERS indicating that Paul construes these elements as neither positive or negative. When compared to Interview 1 this grouping appears broadly similar although after a year of practice, Paul now seemed to think less positively about this community. Once again, THE TEACHER I WOULD FEAR TO BE and THE TEACHER I NEED TO BE TO PASS THE COURSE are most closely associated with the more negative side of Paul's construing with the TEACHER I WOULD FEAR TO BE in particular associated with the negative poles of the constructs describing the professionalism theme, indicating that Paul would fear to be seen as unprofessional even though in his narrative he questioned his own professionalism during his early practice (A45).

*'...I'm trying to think back on what I said at the time but yeah I think with a bit more experience with a bit more practise in the class I have become more confident with it and I think it's one of those things that yeah [long pause] my views have developed erm [pause] I think I'm more professional in the classroom now than maybe I was a year ago' (A45).*

**Conclusion:** Whilst it was possible to identify through Paul's narratives some changes in his attitudes over time, his inability or unwillingness to recount his experiences through stories or vignettes, and his struggle to articulate his constructs, means that it is very difficult to assess the extent that these have led to changes in his thinking about teaching and learning. Over the two interviews, Paul's narrative suggests he has become more open to external influences on his views of teaching and learning. He has moved from relying initially on his own experiences as a student to guide him as a teacher, to becoming more aware of the value of his peers, colleagues and his teacher training course.

One possible explanation for this change is Paul's realisation that despite being a full participant in the activities of his department he had other, competing identities such as 'student' and 'beginning teacher' that needed to be serviced. The lack of a period of apprenticeship or '*legitimate peripheral participation*' (Lave & Wenger, 1991) may have led to Paul neglecting these identities and, in so doing, failing to perceive the need for the influence of peers, colleagues or teacher training. However, the value that Paul seems to place on becoming a member of the community of practice (A63, A64) might account for why Paul initially placed a premium on the 'full participant' identity.

*'Yeah I think initially it was just any kind of social erm [pause] social network I am quite reserved and very slow to sort of present myself socially erm [pause] whereas I think now I've kind of become fully integrated into the community and erm [pause] I've demonstrated through my personality and let people see my natural strong personality' (A63).*

What Paul describes in his second narrative as being 'more professional in the classroom' (A45) may, rather counter-intuitively, reflect Paul's realisation that he is both student and beginning teacher and, as such, does not have to internalise (that is rely solely on his own resources) the process of 'professionalising'. There is little evidence in Paul's narrative that his view of teaching and learning has been strongly influenced by previous teachers or other such mentors or role models. Indeed Paul's single point of reference or influence during his initial professional practice may have been, not just his experiences, but his own rather negative view of himself as a student. This single point of influence may have initially led to Paul adopting a rather 'defensive' teaching and learning strategy which he has been able to relax as he has become ever more influenced by his peers and colleagues.

Table 15 shows how Paul ranked his second set of constructs in order of importance. Paul's albeit small number of constructs now appear to be grouped much more by construct theme with Paul's professionalism theme seemingly the most important. That Paul's most important construct is now represented by teacher qualities and attitudes may indicate a change in Paul's thinking about teaching and learning and being a teacher – although teacher knowledge remains important. Paul now appears more concerned with a teacher's attitudes and knowledge and this corroborates the view suggested in Figure 18.

**Table 15 - Construct Ranking - Paul Interview 2**

<b>Construct</b>	<b>Cluster</b>	<b>KSAQ</b>	<b>Rating 1-10</b>
<b>Has developing knowledge of what makes a good teacher, proactive vs Lethargy, doing the minimum required to get to competent status</b>	professionalism	Q/A	1
<b>Aware of broader aspects of being a teacher, not just teaching, bigger picture stuff vs Too focused on specifics of being a competent teacher</b>	professionalism	K	2
<b>Has professional status, recognised qualification vs till training, unqualified</b>		K	3
<b>Learns through others' experience vs Avoiding learning on the basis of avoiding what you fear to be</b>	professionalism	A	4
<b>Focus on community of practice, personal skills vs Focus on professional status</b>	Focus on the community of practice	A/S	5
<b>Aware of the importance of personal qualities in personal development vs Focus on the knowledge of teaching/subject</b>	Focus on the community of practice	A	6

Paul's view on the most influential factors in his professional learning and development as a teacher can be seen in Table 16.

**Table 16 - Ways of Learning to Teach in PCET - Paul**

<b>Ways of Learning to Teach</b>	<b>Level of Influence</b>
<b>Simply doing the job of teaching in the PCET environment</b>	15%
<b>The experience of being taught as a student</b>	15%
<b>Workshops and conferences</b>	10%
<b>Conversations with and observation of colleagues in the department</b>	20%
<b>Completion of a formal award-bearing course</b>	10%
<b>Reading about teaching and learning</b>	10%
<b>Guidance from a mentor</b>	15%
<b>Online learning</b>	5%

Table 16 shows that Paul considered the influences on his professional development to be distributed across a wide range of sources. Whilst Table 16 does not seem to support the general themes articulated in Paul's narratives, the higher level influence ratings (15% and 20%) do at least provide some measure of triangulation with Paul's thoughts on the value of teaching experience coupled with his experiences as a student, and the emerging importance of peers and colleagues on his professional development. It should be noted however that the ratings in Table 16 are all so close as to render this conclusion highly speculative.

Perhaps more importantly, Table 16 does highlight that, at the completion of the second interview, Paul did not feel that there was a strong influence on his views of teaching and learning coming from any one source. This might account for why Paul seemed to have difficulty narrating his experiences and then linking them to the development of his construct system. However, throughout both interviews I felt that Paul had devoted very little previous thought to what his views of teaching and learning were and how he wanted to develop and shape his personal pedagogy.

### 8.3 Trajectory

In his first interview, Paul highlighted his position within the community of practice by placing himself at what he described as the 'periphery' of the community (indicated by the cross in Figure 19). He suggested that whilst he had been invited into the community, he had some way to go before he became a full member. He indicated that with practise and experience he would move further into the community of practice which he conceptualised as the centre of the target. Paul explained that his trajectory line was slightly tangential to the centre of the community because he did not wish to conform fully and that he does not want to compromise his professional and personal beliefs just to fit in with the community. Paul felt that he retained the majority of control over his trajectory because he was responsible for his own performance and that his annual reports, which Paul clearly viewed as being linked with his trajectory, were his responsibility.

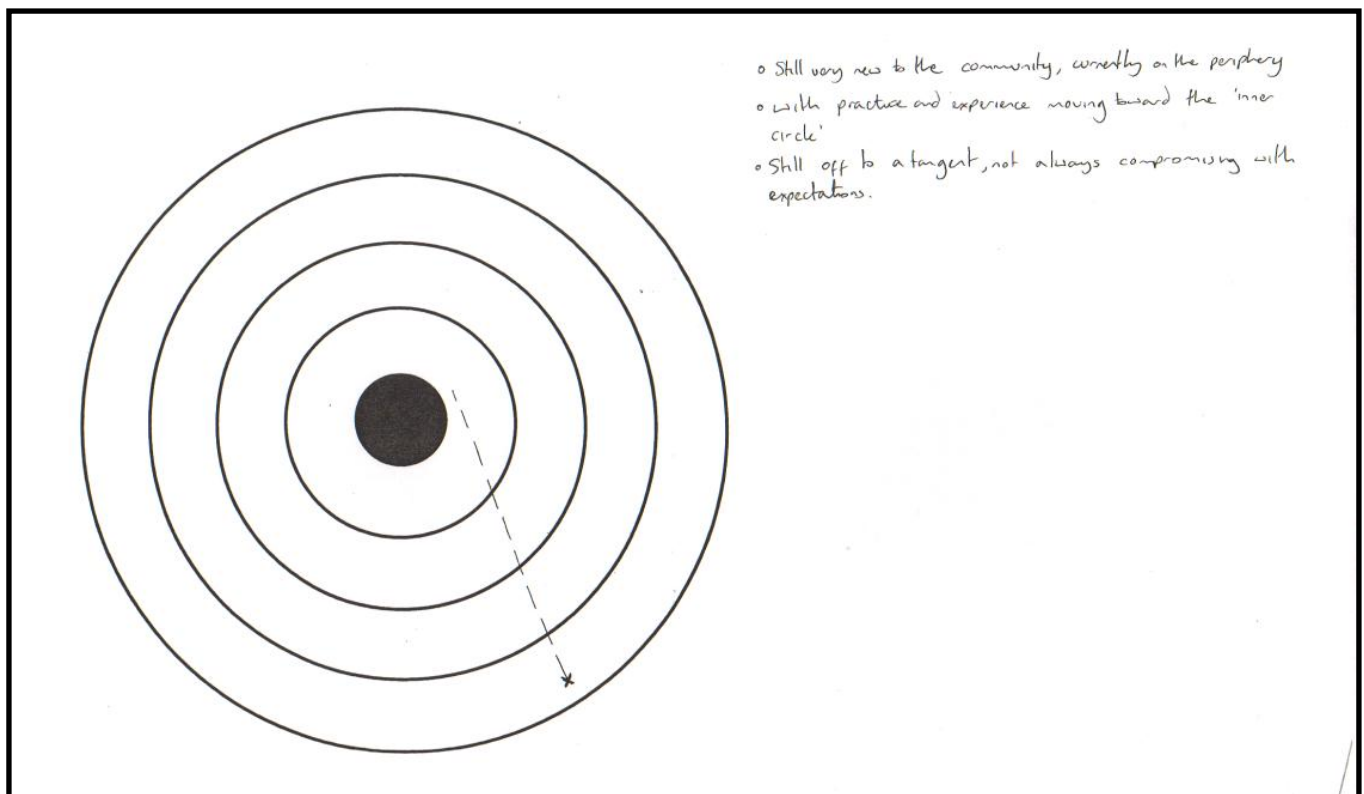


Figure 19 - Trajectory Target - Paul (Interview 1)

In his second interview Paul illustrated a slightly more complex view of his position and trajectory, developing what he referred to as the 'solar system' view. He described the entry point (shown as the outer dot in Figure 20) as the position that novices enter the community. It is interesting that this is almost the same place as he positioned himself in Interview 1 (Figure 19). Paul highlights that the completing PGCE would bring him closer to the community at which point he would 'orbit' the community, slowly moving closer to the centre

of practice. Paul seemed to be less positive now about the about level of influence he had over his trajectory although, like the first interview, he suggested that about 70% was in his hands, the rest Paul suggested was down to fate.

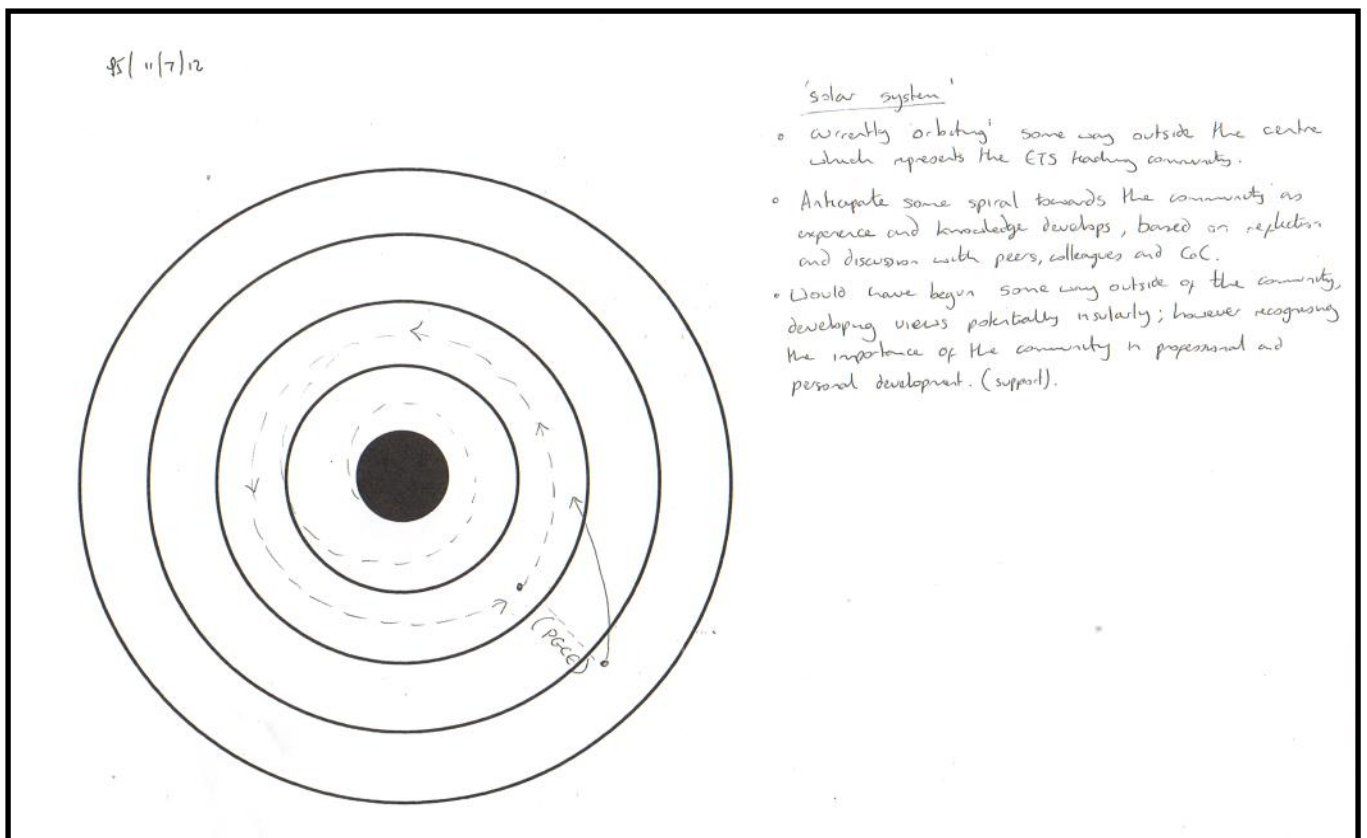


Figure 20 - Trajectory Target - Paul (Interview 2)

## 9 CASE STUDY 5: DAVID

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### 9.1 Interview 1

During David's first narrative, a number of themes emerged that began to illustrate his epistemology and developing pedagogy. David suggested for instance that good teaching should be linked to day-to-day activities and lead to useable skills:

*'Generally, erm [pause] it has to be something that adds value in some way to the people involved and that can be the teacher and the learners, so they have to gain some benefit out of it erm [pause] and that can be just enjoyment of knowing more and learning more about a topic, it can be giving skills and abilities and knowledge that people can actually use going forward, it can be inspiring learners to go off and develop themselves so there is a whole range of things that people can get out of it, but as you know, as long as there is some benefit being given then it is worthwhile'* (Stanza 77-79).

He also spoke of the need for learning to be challenging.

*'It was the fact that we got pushed, we were challenged, we were out of our comfort zone, and we had to react to erm [long pause] err [pause] scenarios and situations that we hadn't foreseen... But it's mainly the fact that we were pushed and we were challenged but it was directed, it wasn't, it was focused on a specific purpose'* (Stanza 80-82).

Interestingly, David also developed a framework for understanding the development of teachers in which he articulated a two-tier or hierarchal view of teaching proficiency.

*'...there are certain things that you have to achieve a baseline on and then anything extra you achieve is a bonus and there are certain things that its more on a scale so just the better you are you'll get directly proportional results'* (Stanza 86).

In the basic or 'baseline' tier David described the requirement for professionalism, subject knowledge and communication skills.

*'Well initially I'd start with the basics of the things that you just had to get to a certain level, so you have to have a certain amount of knowledge, you have to erm [pause] so you have to be a subject matter expert you have to erm [pause] be professional in your attitude and the way you approach it, erm [pause] you have to understand how to have a logical structure to a lesson and you have to be able to communicate with people. I think if you've probably got those four things you can probably get by, erm [pause]'* (Stanza 87-88).

In the second level, which David did not name, he suggested the teacher becomes more credible and inspiring and is able to connect with the students on an individual level.

*'However the better you are at those they will tie in to create, to your credibility and inspiring respecting people, erm [pause] being able to connect on an individual level with people is sort of like a catalyst to the other things its allows, it just makes everything a bit easier'* (Stanza 89).

*'But I think that erm [long pause] I think being really, you have to be very professional, you have to have your basics, you have to have your subject matter knowledge, you have to be able to connect with people, to communicate with people to be able to get that across, you have to have and you have to be able to inspire confidence in the group that you are the person who can be their teacher and inspire them to actually want to learn and go off and learn it themselves, so it's kind of three levels of stuff there I guess and I think if you can do all of that then you're a really good teacher and then yeah you can have, you can be a better teacher by being more charismatic but they're things you've got their personal attributes that you can't really effect erm [pause] so the one you can effect I think that kind of sums it up'* (Stanza 185-188).

David linked his professional narrative to a range of personal attributes and attitudes and, as such, adopted what appears to be a trait-based view of the teacher.

*'...you've got to have the desire and attitude to actually achieve something, obviously in this case to being able to teach'* (Stanza 92).

David illustrated this by suggesting that while some teachers rely on these qualities, he feels that he requires *'the backing of some solid preparation'* (Stanza 113) before he can move to the second tier and reveal his personality. David commented *'I need to set myself up in the way to actually allow myself to be myself'* (Stanza 114). David also appeared to have developed a rather teacher-focused and acquisition-based view of teaching and learning where the subject-matter of the teacher is of principal importance. During the collaborative analysis interview however David commented that the story of a previous teacher (that he had described in the first interview) was meant to illustrate the link between subject knowledge and credibility rather than indicate the primacy of teachers' knowledge.

David initially appeared hesitant to provide examples of individuals or incidents that had influenced his views of teaching and learning. As the interview progressed it became apparent that David did not conceptualise his development by key individuals or critical events but took a wider and more holistic view. Whilst he proved able to illustrate and story



his experiences, and acknowledge where he has been influenced, he felt it was personally important that:

*'...I have never really pinned myself to one idea or person because I've always felt that's not broad enough' (Stanza 25).*

Within his narrative however there were a number of illustrations of how David's ideas about teaching and learning had in fact been influenced. Although David was critical of the academic elements of the PGCE course and highlighted during the collaborative analysis interview that the PGCE was only having a limited influence on his thinking, in some parts of his narrative it felt as if David was trying to accommodate some of the ideas presented in the PGCE within his developing pedagogy. For example David suggested that you have to be *'...able to identify the differences between people and identify their needs so you can obviously construct and differentiate and all that good stuff...'* (Line 355-356). There was also evidence that David was influenced by peers, colleagues and the wider community of practice. This comprised of others commenting on David's practice:

*'It was just a trend I've noticed in terms of when we had, when we did micro teaching in the class the whole class would then give feedback and also the tutor, in my case it was [colleague], erm [pause] and I just noticed a couple of times different people kind of came out with the same points and then since then I've had on my attachment and here I've had two teaching fellow observations and one subject specialist observation [cough] and the feedback's roughly been along the same lines' (Stanza 63-64).*

And David's observations of other teachers:

*'There are lots of different techniques and ways in terms of different exercises you can include within a lesson, erm [pause] the balance of a lesson, erm [pause] and so forth and you know some people try things like having really good visual aids, other people have... try and base things purely on discussion, other people like to include humour, and I think that you probably, all teachers probably work out, eventually, a sort of style that they have, like their toolbox they are not going to have everything in there but it's good to try and, you know within your toolbox, to mix things up and to try different things to get a better effect, but it's also good to try and go beyond it and bring things in and try things that you've never really tried before or you know just in a slightly different way' (Stanza 99-102).*

*'Erm [pause] in evolution, in a sort of step by step way not like "right this time I'm definitely doing this" because I'm still experimenting with all the things in my toolbox really' (Stanza 109).*

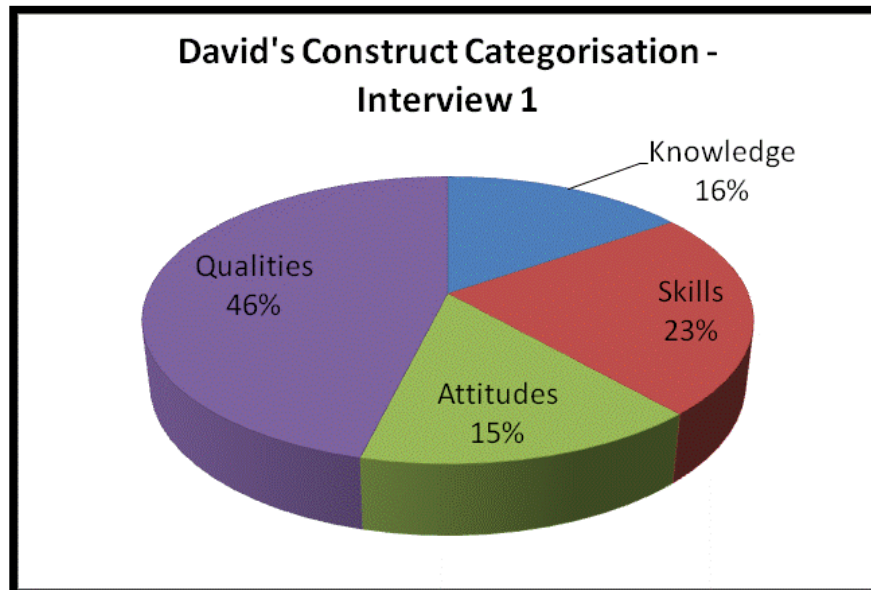
In the latter stanzas, David illustrated a process of trying approaches in the classroom that went beyond simple experiments with different teaching techniques and described experimenting with teaching identities. The community of practice in this case appeared to provide a range of what Ibarra (1999) describes as possible selves from which David was able to adopt suitable 'provisional selves' to utilise in the classroom. Rather than simply adopting particular identity however, David was keen to use them to develop what he described as his teaching 'toolbox' (Stanza 101, 109). David was also able to illustrate how his wider personal experience had influenced his thinking about teaching and learning. David's narrative suggests that his overall personal experience provided much of the context for his understanding of teaching and learning at this early stage in his professional development.

*'It is difficult to answer that because within the PGCE work any theory is always understood by attaching it to the things you've experienced so previous teachers and current colleagues so it's difficult to err [long pause] distinguish between them'* (Stanza 151).

His narrative (Stanza 122-123) provides some support for Lortie's (1975) idea that beginning teachers have already been exposed to a wide range of teaching influences in what he describes as an 'apprenticeship of observation' and this may explain why he is unwilling or unable to overtly link his construing to key individuals or critical incidents.

*'I think from what I said earlier about erm [pause] not having a specific individual influence and having quite early on I think I could look at my education quite objectively erm [pause] I think that's allowed me to have quite a long period where I have kind of slowly assimilated different people's techniques probably subconsciously watching how people do things, I think communication is probably the biggest thing, erm [pause]. On my gap year erm [pause] a lot of the people we dealt with didn't speak English as a first language and I think that was the first time I had to push myself to communicate clearly, not just in terms of dropping my estuary accent I picked up in [home location] but in terms of erm [pause], structuring things, in a logical way...'* (Stanza 122-124).

In the Repertory Grid activity, David was able to articulate ten constructs about the knowledge, skills, attitudes and qualities of a good teacher. At the conclusion of the activity, David was asked to indicate which of the four aspects he believed each of his ten constructs were concerned with, accepting that each construct could be referring to more than one aspect. Figure 21 shows how David categorised his construing:



**Figure 21 - Construct Categories - David Interview 1**

Figure 21 shows, David categorised 61% of constructs as being concerned with the attitudes and qualities of a teacher with the vast majority (46%) reflecting constructs about the qualities of a teacher. This categorisation seems to support David's narrative which appeared to adopt trait-based view of the teacher. Teaching skills appear to also be important; however, that a small proportion of constructs were concerned with knowledge is surprising, given its primacy within David's narrative.

Annex E (Figure 48) graphically shows the focus sorting and hierarchical clustering of David's construing. The element dendrogram shows that David has split the elements into a number of clusters. In the first cluster, David associates MYSELF and MY PEER GROUP (>85%) to form what might be viewed as a novice or beginning teacher cluster. The central group of six elements form what appear to be the experienced teacher group and are split into two clusters. The first cluster containing MY COLLEAGUES, A COMPETENT TEACHER and THE TEACHER I NEED TO BE TO PASS THE COURSE (>85%) is the closest to where David has placed himself indicating that of the more experienced teachers, he views this cluster less favourably. The second, more aspirational cluster includes MY MENTOR, THE COMMUNITY OF PRACTICE and MY PREVIOUS TEACHERS. This cluster is located the nearest to MY FUTURE SELF, indicating the David views these three elements are representing most closely a model for his future development. Whilst not associating himself directly, it is interesting to note that David has placed himself nearest to the final and least associated element, THE TEACHER I WOULD FEAR TO BE. This may indicate that at this early stage in his professional development, David is highly critical of his own ability.

The construct dendrogram is similarly arranged into a number of small clusters:

- Cluster 1 - A two-construct cluster containing *can communicate effectively in the classroom vs creates confusion in the classroom* and *creative approach to teaching vs recreates what has been done before* (>90%).
- Cluster 2 - A three-construct cluster containing the very closely associated constructs *credible in front of the class vs lack credibility* and *is confident in the classroom vs lacks confidence in the classroom* (>95%) and the construct *subject matter expert vs shallow understanding of the subject matter* (>90%).
- Cluster 3 – A two-construct cluster comprising *has professional drive vs has professional laziness* and *has a logical approach to teaching in the classroom vs haphazard approach in the classroom* (>90%).

David did not see that the constructs; *ability to connect personally with colleagues and students vs alienates others* and *inspirational in the classroom vs inability to inspire* were connected either to each other or to any of the clusters. The dendrogram shows that the final construct *has a huge amount of experience vs lacks experience* is the least associated construct.

During the analysis of the Repertory Grid data, David was asked to name these groups of constructs in an effort to elicit what might be construed as a set of super-ordinate constructs or construct themes. David found categorising his construing challenging but was able to develop some construct themes. David stated that cluster 1 describes the importance of **interaction and engagement**, cluster 2 describes the **credibility**, and cluster 3 describes **the preparation for teaching**. The balance of these construct themes do not seem to represent the construct percentages shown at Figure 21 as they appear to be focused more on knowledge and skills than teacher qualities. Nevertheless, these three construct themes do support many of the ideas that David discussed in his narrative. Specifically, cluster 1 appears to reflect both tiers of David's teaching framework with *logical communication* in the 'baseline' tier and *the ability to connect* in the higher tier (highlighted in Stanza 87-89, 185-188) and this part of his narrative links with cluster 2 which triangulates well with David's view that a teacher's credibility, and therefore confidence, are linked to their mastery of the subject

*'...I think that he, because he was very professional, erm [pause] there was never a single occasion where I thought he wasn't prepared for a lesson or he err [pause], erm [pause] I'm sure part of that was because he knew his subject matter inside out, so for all I know he could have just turned up and winged it, but he was able, regardless of that, he managed to*

*create that aura around himself where everybody massively respected him, because everybody, even the stupid/bad/naughty kids knew that he erm [pause],knew what he was talking about erm [pause] and he inspired their respect'* (Stanza 142-144).

*'Yeah, it was kind of the appearance with him as well, but I think that that's all hung on other attributes, err [pause] and subject matter knowledge is obviously a key one of those'* (Stanza 145).

Cluster 3 reflects the importance that David appears to place on preparation as an enabling activity.

*'Yeah, but I feel that if I don't have the backing of some solid preparation like some framework there, to sort of hang my personality on, then err [pause] I find that it affects my confidence and that means that my personality cannot come out anyway erm [pause] so it's not that there isn't personality there it's just that in certain circumstances I need to set myself up in the way to actually allow myself to be myself'* (Stanza 113-114).

Annex E (Figure 49) shows David's grid data arranged as a PCA graph. The two components plotted in the graph account for 92.8% of the variance in the data (82.9% + 9.9%) indicating that one plot is sufficiently accurate for analysis (Jankowicz, (2004)). The graph shows David's constructs arranged in a fan shape around the first (horizontal) component. This is the expected arrangement when the first component accounts for a high degree of variance (82.9%).

The location of the elements with respect to the constructs is worth further analysis. The left side of the component graph appears to display the more negative side of David's construing. Adopting a simple quadrant approach, the top left quadrant shows that David generally associates MYSELF and MY PEER GROUP with construct poles such as *lacks experience; lacks confidence in the classroom; shallow understanding of the subject matter and lacks credibility*. This seems to confirm David's positioning of himself and his peers as novices. The bottom left quadrant sees A COMPETENT TEACHER, THE TEACHER I NEED TO BE TO PASS THE COURSE and THE TEACHER I WOULD FEAR TO BE linked with various negative construct poles such as *haphazard approach in the classroom, inability to inspire, professional laziness, alienates others, creates confusion in the classroom and recreates what has been done before*. It is interesting to note that whilst David is able to associate those more negative construct poles, he has chosen more 'theoretical' elements rather than those which he can relate to actual people.

The right side of the component graph appears to display the more positive constructs. In the bottom right quadrant David associates MY PREVIOUS TEACHERS, MY MENTOR and THE

COMMUNITY OF PRACTICE with positive construct poles such as *subject matter expert, credible in front of the class; has a huge amount of experience; and is confident in the classroom*. This appears to reflect the positive attributes of the more experienced teachers that David has observed in his early professional development. Finally, in the top right quadrant MY FUTURE SELF and MY COLLEAGUES are linked with aspirational construct poles such as *creative approach to teaching; ability to connect personally with colleagues and student; can communicate effectively in the classroom, has professional drive, has logical approach to teaching in the classroom and inspirational in the classroom and with colleagues*. It should be noted however that the element MY COLLEAGUES is located close to the centre of the graph and, in the FOCUS grid, is located some way from the MY FUTURE SELF element. This may indicate that simple quadrant analysis of the PCA graph is misleading if we are to hypothesise that David equates his colleagues with his future self. This may be the case but there is no evidence within the narrative to support this.

**Conclusion:** David's initial narrative appears to illustrate that, at this early stage in his professional practice, his constructs about teaching and learning are influenced primarily by his wider personal experiences both in and out of the classroom. It is this experience that appears to frame David's approach to teaching and his developing pedagogy. Even at this early point in his professional development however there is evidence of the influence of both the community of practice and his formal teacher education. David appears to have access to a range of colleagues and peers from which he seems to be constructing a personal pedagogy that he describes as a 'toolkit'. He also appears comfortable 'trying out' a range of teaching identities. David seems to have been less successful in accommodating some of the ideas presented in the PGCE within his current construing and so, at this point, appears to have dismissed the influence of the academic element of the course and separated this from his teaching practice. There is some evidence however that David is at least beginning to, if not adopt, then experiment with narratives that are influenced by his professional education, even if he is not yet aware of any discernible change in his construing or in his practice.

David's narrative appears to be well supported by his constructs which he categorised as being broadly concerned with interaction and engagement, credibility, and preparation for teaching – some of the key themes of his first narrative.

Table 17 shows how David ranked his initial constructs in order of importance. It was interesting to note that whilst the dominant themes within David's narrative were centred on classroom preparation and credibility, it is constructs focused on communication and personal engagement which David rated as the most important four constructs for him.

Table 17 also shows that David has categorised these constructs as being related to either the skills or qualities of a teacher. This may indicate that David believes whilst communication and, to an extent, the ability to inspire can be learned, connecting with people and being creative in the classroom may be inherent abilities of the individual teacher. This may support David's disposition- or trait-based view of teaching he articulated in his narrative.

**Table 17 - Construct Ranking - David Interview 1**

<b>Construct</b>	<b>Cluster</b>	<b>KSAQ</b>	<b>Rating 1-10</b>
<b>Can communicate effectively in the classroom vs Creates confusion in the classroom</b>	interaction & engagement	S	1
<b>Ability to connect personally with colleagues and student vs Alienates others</b>		Q	2
<b>Creative approach to teaching vs Recreates what has been done before</b>	interaction & engagement	Q	3
<b>Inspirational in the classroom and with colleagues vs Inability to inspire</b>		Q/S	4
<b>Has professional drive vs Has professional laziness</b>	preparation for teaching	A	5
<b>Subject matter expert vs Shallow understanding of the subject matter</b>	credibility	K	6
<b>Credible in front of the class vs Lacks credibility</b>	credibility	Q	7
<b>Is confident in the classroom vs Lacks confidence in the classroom</b>	credibility	Q	8
<b>Lacks experience vs Has huge amount of experience</b>	preparation for teaching	K/S	9
<b>Has a logical approach to teaching in the classroom vs Haphazard approach in the classroom</b>		Q/A	10

## 9.2 Interview 2

David's second narrative continued many of the themes that he articulated in his first interview. This may indicate that his core construing has remained relatively stable over the 12 month period. Indeed, David appeared to suggest that the nucleus of his thinking about teaching and learning had become more concrete during this period.

*'Yeah, I mean I don't think it would have changed drastically but I would not be surprised if I said something different before, because I think that I would put more emphasis on it now than I did a year ago, erm [pause] partly because as I have done further stuff on the PGCE and looked into sort of different types of theory erm [pause] I think it's kind of its distilled my own views on education a bit so whereas before I was probably listing lots of different attributes and lots of different things I think I've decided that that's where I, that's the sort of key theory that underpins my view of education'* (A32).

David's second narrative remained dominated by his view of the importance of teaching preparation.

*'Well obviously preparation is massively important, ...if you are not prepared and you don't know the material well enough and you are not sure of where you are going it takes away your ability to kind of relax and be yourself or it does to me anyway, and to interact with them freely because I was too focused on what was coming next erm [pause], what I could do on the next bit which wasn't working and therefore I think I became quite wooden as well'* (A30).

*'Erm [pause] in terms of what makes a good teacher I still think and I probably said this last time that preparation is one of the most important factors'* (A37).

He was able to illustrate this view with a vignette (Stanza 218-219) from his own practice.

*'Worst [lesson he had taught] would have been one that I almost cuffed just didn't ...hadn't prepped [sic] for it properly was one towards the end of the week so I'd gotten lesson planning fatigue the new course erm [pause] and erm [pause] it was you know it was one of the ones on the Warrant Officer's Course and it was the last lesson, well some of the lessons on the last day, oh hideous, it really peaks and then you have a massive anti-climax on the last day and erm [pause], yeah I just didn't prep [sic] properly for it'* (Stanza 218-219).

There was an interesting contradiction however when he inferred that his developing confidence might mean he could teach without preparation.

*'Whereas now I feel I can kind of just walk in if I have to I could go in and just kind of 'cuff' a lesson, not that I would but that it would mean yeah I can sort of let my personality take over*



*and actually just talk to the guys and have a chat with them and stuff. Whereas at the beginning I could not have done that'* (Stanza 210-211).

However, David may simply be suggesting that he is becoming more proficient in his planning and that is it has therefore become a more routine part of his practice.

Other themes, such as student interaction and subject knowledge, remained key parts of David's second narrative, however, he appeared to conceptualise these themes with greater complexity and depth. It was clear David was beginning to develop his own epistemology which was underpinning his approach to teaching and learning. Whilst there appeared to be some inconsistencies within his construing David seemed to be developing a more student-centred and constructivist approach.

*'Erm [pause] well you have to be self-disciplined in order, in terms of physically doing your preparation and mentally in terms of erm [pause] using the correct approach for what you are trying to achieve rather than what you would rather do. Erm [pause] you do have to be relatively charismatic in terms of, not everyone does and not every teacher is but I think it is good to try and be erm [pause] you have to be you sort of be authoritative in terms of your knowledge of the subject, so subject knowledge and how you interact with the students, you know, if you are you know if you are teaching them something that's fact you are teaching it as fact, if you are teaching them as and you have to kind of let them know that this is just the kind of way it is but also still allow them to question and come up with their ideas as well'* (A39).

As a consequence, he was clearly frustrated by some aspects of his professional practice which he saw as incompatible with his developing epistemology.

*'Yeah, there is always scope within the course to push that side of it, erm [pause] so you can still take a course that is relatively prescriptive and try and include erm [pause] that those kind of ideas within how you teach it. It is a little frustrating that the whole course is underpinned on a relatively behaviourist approach for education in terms of the whole concept of [the systems approach to training] is that you have an observable outcome at the end'* (A34).

*'Erm [pause] the whole point of their pass, you know green or amber grade is that they have to be able to demonstrate competencies erm [pause] but you can get to that point in a more or less behaviourist approach'* (A35).

David ascribed much of this change to the increasing influence of his professional education. Having been initially critical of the theoretical aspects of his professional education, David was more positive about this aspect of his course in the second interview. David inferred

that in the first interview he had been utilising PGCE narratives without really reflecting on their meaning (A32) however, as the course had become more challenging he had found the work more influential and relevant to his practice.

*'Yeah [long pause] the moment I sort of realised it was when I was doing erm [pause] a piece of work for my PGCE which was a curriculum design essay and that was kind of a moment where all of the different theories that underpin education kind of came together because of, not necessarily because it was curriculum theory, but because that was a point in the course which we kind of covered the various different basis of the theory so you could kind of see the coherent whole. The nature of that piece of work is that it was one of the first times you actually really engage you brain as well'* (Stanza 220-222).

*'Err [pause], I hate to say it but I think actually the PGCE has been quite good for that'* (A44).

*'Just because it has erm [pause] expanded you know my theoretical knowledge which I've then been able to relate to stuff that has been happening in the classroom and seeing with other teachers and things'* (A45).

There was also evidence in David's narrative that both his classroom teaching experience and his community of practice had influenced his thinking about teaching and learning. Once again he was able to utilise story to illustrate how a negative classroom experience (Stanza 227-230) or an in depth analysis of his colleagues teaching approaches (Stanza 231-233) was able to provide situations he could reflect on.

*'I have had a course where erm [pause] [laughs] I remember I mentioned the concept of professionalising the Warrant Officer to a group of Warrant Officers and one of them in particular took massive erm [pause] he took it as a big insult because he thought I was suggesting that he was not professional, he did not quite understand the slight difference between being professional and being a professional, erm [pause] and I lost the classroom in like that one statement erm [pause], so I have learnt that, you know I took that relatively hard at the time, but I realised as well that sometimes that just happens and it's all about how you respond to that and how you react to it because although I tried to sort of clarify my point and discuss it with them it did not really work initially but I had to come back the next day and teach them again and put it behind me, so I kind of learned to take that on the chin a bit'* (Stanza 227-230).

*'Yeah, [colleague] was you know I think he was a really good teacher, he's got a really good manner with the class, he is charismatic with them it's you know he erm [pause] responds really well to their questioning erm [pause] and they always tend to you know give him good feedback, erm [pause] conversely [different colleague] probably quite opposite in terms of*

*approach to teaching but still really effective because he has you know really good knowledge and um err [pause] they kind of, although they are not necessarily walking out of the lessons smiling as much, they err [pause] I think they walk out nodding and going “urm interesting” (Stanza 231-233).*

Indeed, reflecting on his practice appeared to be a key part of the development process for David.

David's increasing confidence as a teaching practitioner, and the relegation of some activities to routine status, may indicate that he is progressing beyond what he had described in his first narrative as the basic or 'baseline' tier. David's new-found confidence in the classroom may suggest he is moving to a higher teaching 'tier' where the teachers are seen as credible and inspiring and are able to connect with the students on an individual level. Interestingly, there seems to be less evidence of a trait-based view of teaching within the second narrative and David seems to view the higher teaching tier being accessed through planning and experience rather than the possession of innate qualities.

In the second Repertory Grid exercise, David articulated his constructs about the knowledge, skills attitudes and qualities of a good teacher offering ten constructs. At the conclusion of the activity, David was asked to indicate which of the four aspects he believed each of his ten constructs were concerned with, accepting that each construct could be referring to more than one aspect. Figure 22 shows how Paul categorised his construing:

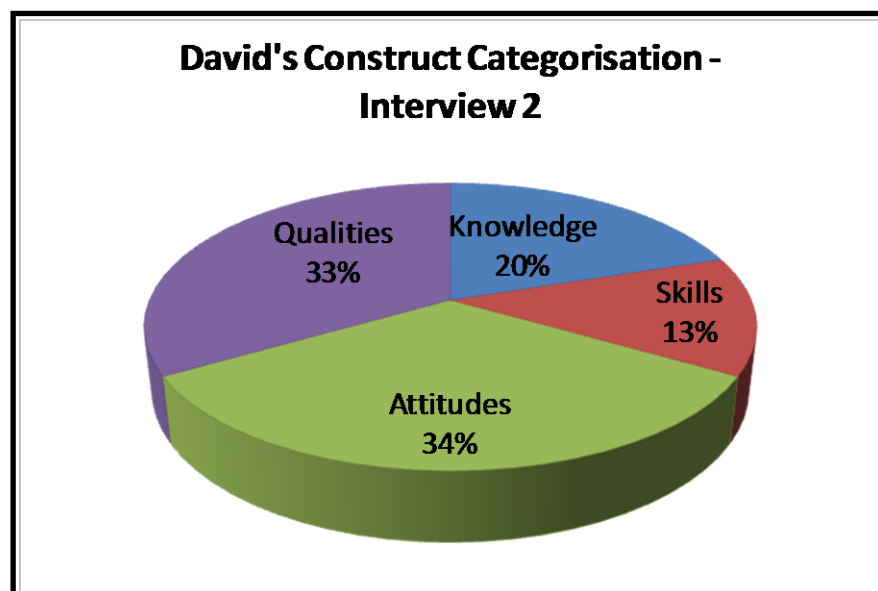


Figure 22 - Construct Categories - David Interview 2

The majority of David's construing (67%) in Interview 2 remained focused on the attitudes (34%) and qualities (33%) of the teacher and this is broadly similar to that found in Interview 1 (61%). However, Table 18 shows a significant shift within these figures from an overriding focus in Interview 1 on teacher qualities to a greater balance in Interview 2 between qualities and attitudes. This may indicate that whilst David still retains a trait-based view of teaching, the focus has shifted from the innate qualities of the individual towards a more of a concern for the attitude the individual teacher adopts. Between knowledge and skills the focus seemed to have switched between interviews with constructs concerned with knowledge being more prevalent. This may be a reflection of David's increasing confidence in his teaching 'skills' and hence the relative 'relegation' in its importance.

**Table 18 - Construct Category Comparison - David Interview 1 against Interview 2**

<b>Category</b>	<b>% of associated constructs (Interview 1)</b>	<b>% of associated constructs (Interview 2)</b>
<b>Knowledge</b>	16%	20%
<b>Skills</b>	23%	13%
<b>Attitudes</b>	15%	34%
<b>Qualities</b>	46%	33%

Annex E (Figure 50) graphically shows the focus sorting, and hierarchical clustering of David's construing. The element dendrogram appears to be structured differently than David's initial graph and may indicate a change in the way David construes his relationships with others. The construct dendrograms, despite a number of different constructs, appear to be arranged in a similar fashion to the first graph.

The element dendrogram shows a similar theme to that elicited in the first interview with the elements MY FUTURE SELF and THE TEACHER I FEAR TO BE representing the extremities of a continuum of positive and negative construing. Within this continuum there appears to be two main clusters. The first cluster tends towards the more positive and contains MY PREVIOUS TEACHERS and MY COLLEAGUES (95%), MYSELF (>90%), THE COMMUNITY OF PRACTICE (>90%) and MY PEER GROUP. Associated but slightly disconnected from this cluster is MY MENTOR (>85%). The second cluster, tending towards the more negative construing, contains the elements A COMPETENT TEACHER and THE TEACHER I NEED TO BE TO PASS THE COURSE (85%). Interestingly, David has significantly reordered the placement of his elements within the continuum of positive and negative construing. A comparison of the two graphs shows that the element MY MENTOR for example, previously seen as being the closest to the aspirational element MY FUTURE

SELF, has now been placed more toward the negative end of the continuum. By contrast, the elements MY PEER GROUP and MYSELF have now been positioned next to MY FUTURE SELF. This may corroborate the findings within the second interview narrative which indicate David's increasing confidence as a teaching practitioner. It may also show that David now considers himself part of a cluster which includes his peers, colleagues and the wider community of practice. There is nothing in David's narrative which helps to explain the relative 'demotion' of the element MY MENTOR.

The constructs in David's graph are also similarly structured with a number of small clusters and a generally close association between all the constructs.

- Cluster 1 - A three-construct cluster containing *agility within lessons, immediate response, adapt how & what you teach vs robotic, ignoring class reaction, teach to the plan; self-discipline to continually improve & maintain standards vs inconsistent effort levels* and *has good subject knowledge vs no passion for the subject (>95%)*.
- Cluster 2 - A two-construct cluster containing the constructs *understanding of the theory of education & ability to apply vs just has knowledge of theory but does not apply or understand* and *ability to inspire in the classroom vs un-inspirational in the classroom (95%)*.
- Cluster 3 - A two-construct cluster comprising *ability to be a creative planner – teaching strategies vs following previous lesson plan without continuous improvement, blindly carry on* and *connect & interact with the class, build rapport vs distant & unapproachable (>90%)*.

David did not see that the constructs; *go the extra mile, willingness, drive vs apathy, laziness; must show enthusiasm in the classroom vs doesn't show enthusiasm in the classroom* and *realistic, keen to be inspiring, facilitate vs less idealistic, process orientated, one course* were particularly connected either to each other or to any of the clusters.

During the analysis of the Repertory Grid data, David was asked to name these groups of constructs in an effort to elicit what might be construed as a set of super-ordinate constructs or construct themes. Once again, David found that categorising his construing was a challenging process but was able to develop some construct themes. David stated that cluster 1 describes the importance of **continuous development**, cluster 2 describes the need for **creating interest**, and cluster 3 describes the teacher's **creativity**. This suggests David sees continuous development being linked with subject knowledge and facilitates the

ability to be 'agile' in the classroom. His construct clusters similarly suggest that creating interest is achieved by applying educational theory and being inspirational in the classroom and that creativity is achieved through planning and class interaction.

On balance, these construct themes do not seem to strongly triangulate with the themes contained within David's second narrative (although the 'baseline' tier themes of preparation, subject matter knowledge and interaction, and the more advanced tier themes of inspiration and credibility appear well represented at the individual construct level). It is difficult to account for the apparent change in super-ordinate constructs given the apparent stability in the themes within David's narrative. One explanation might be that David is in the process of re-conceptualising (and renaming) his construing to take account for his experience on the previous 12 months.

Annex E (Figure 51) shows David's grid data arranged as a PCA graph. The two components plotted in the graph account for 90.5% of the variance in the data (84.0% + 6.5%) indicating that the plot is sufficiently accurate for analysis (Jankowicz (2004)). The graph shows that all of David's constructs are contained in a tight fan shape around the first (horizontal) component. This was expected given the high variance figure for component 1 (84.0%).

The locations of the elements with respect to the constructs shows that David is construing the right side of the component graph as containing the more negative poles of his constructs and that the left side contains the more positive construct poles. The more positive and aspirational element MY FUTURE SELF sits furthest to the left as it did in Interview 1. MY PEER GROUP and MYSELF also appear to be associated with David's more positive constructs in the lower left quadrant, located close to the construct poles he described as representing the creativity theme. In the upper left quadrant MY COLLEAGUES, MY MENTOR, MY PREVIOUS TEACHER and THE COMMUNITY OF PRACTICE are associated with positive construct poles of the continuous development and creating interest themes. This may indicate that David believes that he and his peer group are more creative but that his colleagues and the community of practice are more effective at creating interest and have had the opportunity to develop professionally.

On the right side of the graph, the element THE TEACHER I WOULD FEAR TO BE is again located furthest to the right. The A COMPETENT TEACHER and particularly THE TEACHER I NEED TO BE TO PASS THE COURSE are located close to negative construct poles such as *robotic, ignoring class reaction; no passion for the subject; apathy, laziness*. This indicates that, despite an apparent change in attitude toward the theoretical aspects of

his professional education, David still feels he does not need to be a particularly 'good' teacher to pass the PGCE course.

**Conclusion:** David's second narrative appeared to show that both his professional education and his community of practice were exerting a greater influence on his thinking about teaching and learning. In the second narrative, David offered few references to his previous experiences which appeared to dominate his initial frame of reference and pedagogy. This does not necessarily imply that experience is no longer an influence on David's construing, but rather that he had chosen to highlight through his narrative a different range of influences.

The range of constructs that David explored in his second narrative, as well as his language and metaphors, appeared, at a superficial level, to have remained consistent over the two interviews. Themes such as preparation, subject matter knowledge, and credibility endured, and his model of a teaching 'baseline' appeared to still have relevance for David in the second narrative. There is evidence however that, as David was beginning to develop his own epistemology, he was using the same language and metaphor to articulate construing which had a greater complexity and nuance. He also seemed to be attempting to incorporate a more professional lexicon and narrative and, on occasion, this resulted in an apparent inconsistency in construing. This is consistent with Kelly's 'Fragmentation Corollary' which suggests that:

'A person may successively employ a variety of construction subsystems which are inferentially incompatible with each other' (1955, p.83).

There appears to be a less coherent link between David's narrative and his construing in his second interview than was apparent in Interview 1. At the individual construct level, the topics described in the narrative appeared to be well reflected in David's range of constructs. However, as previously discussed, the names that David used to categorise his construct themes or super-ordinate constructs, **continuous development**, **creating interest**, and **creativity**, do not appear to chime particularly strongly with the narrative. Whilst I have hypothesised that this might be an indication that David is trying to re-conceptualise his construct system and pedagogy in light of his developing epistemology, there is little direct evidence to support this. Some of this incoherence is illustrated in Table 19. Whilst a number of the constructs are grouped by theme, David has indicated that the creating interest theme is comprised of both the most important and the least important construct.

Table 19 also shows that, despite an apparent move away from a trait-based view of teaching in the second narrative, David's five most 'important' constructs have a 'teacher

qualities' (Q) aspect to them. Indeed, taken as a whole, these five constructs appear to have a strong focus on teacher attributes. It is interesting to note that the two constructs comprising the cluster **creativity**, which, in the PCA, David associated with the elements MYSELF and MY PEER GOUP are not only highlighted as being some of David's most important constructs, but are also focused strongly on teacher attributes.

**Table 19 - Construct Ranking - David Interview 2**

<b>Construct</b>	<b>Cluster</b>	<b>KSAQ</b>	<b>Rating 1-10</b>
<b>Ability to inspire in the classroom vs Un-inspirational in the Classroom</b>	Creating Interest	Q	1
<b>Idealistic, keen to be inspiring vs Less idealistic, process oriented, one course</b>		A/Q	2
<b>Agility within lessons, immediate response, adapts how &amp; what you teach vs Robotic, ignoring class reaction, teach to the plan</b>	Continuous Development	K/S/Q	3
<b>Connect &amp; interact with the class, build rapport vs Distant &amp; unapproachable</b>	Creativity	Q	4
<b>Ability to be a creative planner - teaching strategies vs Following the previous lesson plan without continuous improvement, blindly carry on</b>	Creativity	A/Q	5
<b>Self-discipline to continually improve &amp; maintain standards vs Inconsistent effort levels</b>	Continuous Development	A	6
<b>Has good subject knowledge vs No passion for the subject</b>	Continuous Development	K	7
<b>Go the extra mile, willingness, drive vs Apathy, laziness</b>		A	8
<b>Must show enthusiasm in the classroom vs Doesn't show enthusiasm in the classroom</b>		S/A	9
<b>Understanding of theory of education &amp; ability to apply vs Just has knowledge of theory but doesn't apply or understand</b>	Creating Interest	K	10

David's view on what he believed were most influential factors in his professional learning and development as a teacher in Interview 2 can be seen in Table 20.



**Table 20 - Ways of Learning to Teach in PCET - David**

<b>Ways of Learning to Teach</b>	<b>Level of Influence</b>
<b>Simply doing the job of teaching in the PCET environment</b>	40%
<b>The experience of being taught as a student</b>	10%
<b>Workshops and conferences</b>	5%
<b>Conversations with and observation of colleagues in the department</b>	5%
<b>Completion of a formal award-bearing course</b>	30%
<b>Reading about teaching and learning</b>	0%
<b>Guidance from a mentor</b>	10%
<b>Online learning</b>	0%

Table 20 shows that David considered the influences on his professional development to be distributed across a wide range of sources, the majority of which were reflected on one or both of his narratives and this provides a measure of triangulation. The most significant influences appear to be his own experiences of practice (40%) and his professional education course (30%) both of which David has illustrated and storied in his narrative. That David ascribes only 10% to his experiences as a student and 15% on the influence of the community of practice (10% mentor, 5% colleagues) is surprising given their relative representation in the narrative. However, this may indicate that there is no correlation between the number of examples or anecdotes focused on a particular influence and the relative strength or weighting of that influence.

### 9.3 Trajectory

In his first interview, David highlighted his position within the community of practice by placing himself at the outside edge of the target (shown as a cross in Figure 23). David highlighted that the centre of the target represented the core ethos and practices and the community and that, as a novice, he does not yet embody the community of practice hence his peripheral positioning. As time goes by, David suggested that he will progress to the centre of the community of practice, however, he highlighted that the centre is 'multi-dimensional' and that he is only concentrating at present on his teaching, hence the tangential trajectory line.

David suggested that he would naturally gravitate towards the centre of the community but he was able to control the speed of this, however the general trend would be to be 'pulled into the centre'.

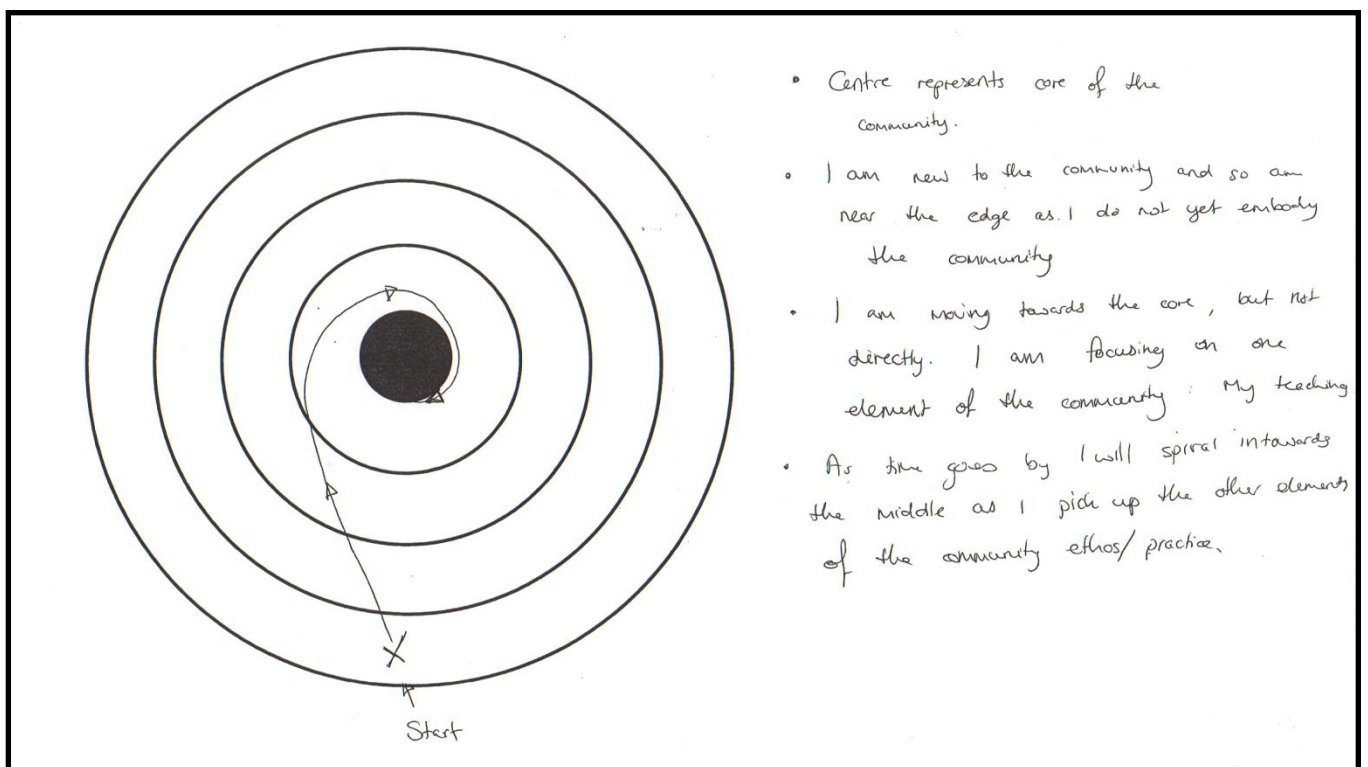


Figure 23 - Trajectory Target - David (Interview 1)

In the second interview David stated that he could remember the previous Trajectory Target exercise and so he illustrated his position and trajectory in a remarkable similar manner. The centre of the target remained the community of practice and David's initial position (indicated as a cross in Figure 23) was slightly further towards the community in Figure 24 indicating that David was illustrating some level of acceptance. The key difference David wished to

articulate was that in this trajectory he did not wish to get to the centre of the community but would rather maintain a distance which David indicated was illustrative of his wish to retain his independence on ideas about teaching and learning. He suggested that this did not mean he was not part of the community, but rather that he wanted to retain his individuality.

David reiterated that there was an element of 'gravitational pull' with respect to his trajectory and highlighted that, generally, he wished to become a full member of the community. However, he maintained that his 'own momentum' provided by his enthusiasm allowed him to retain some measure of control of his trajectory.

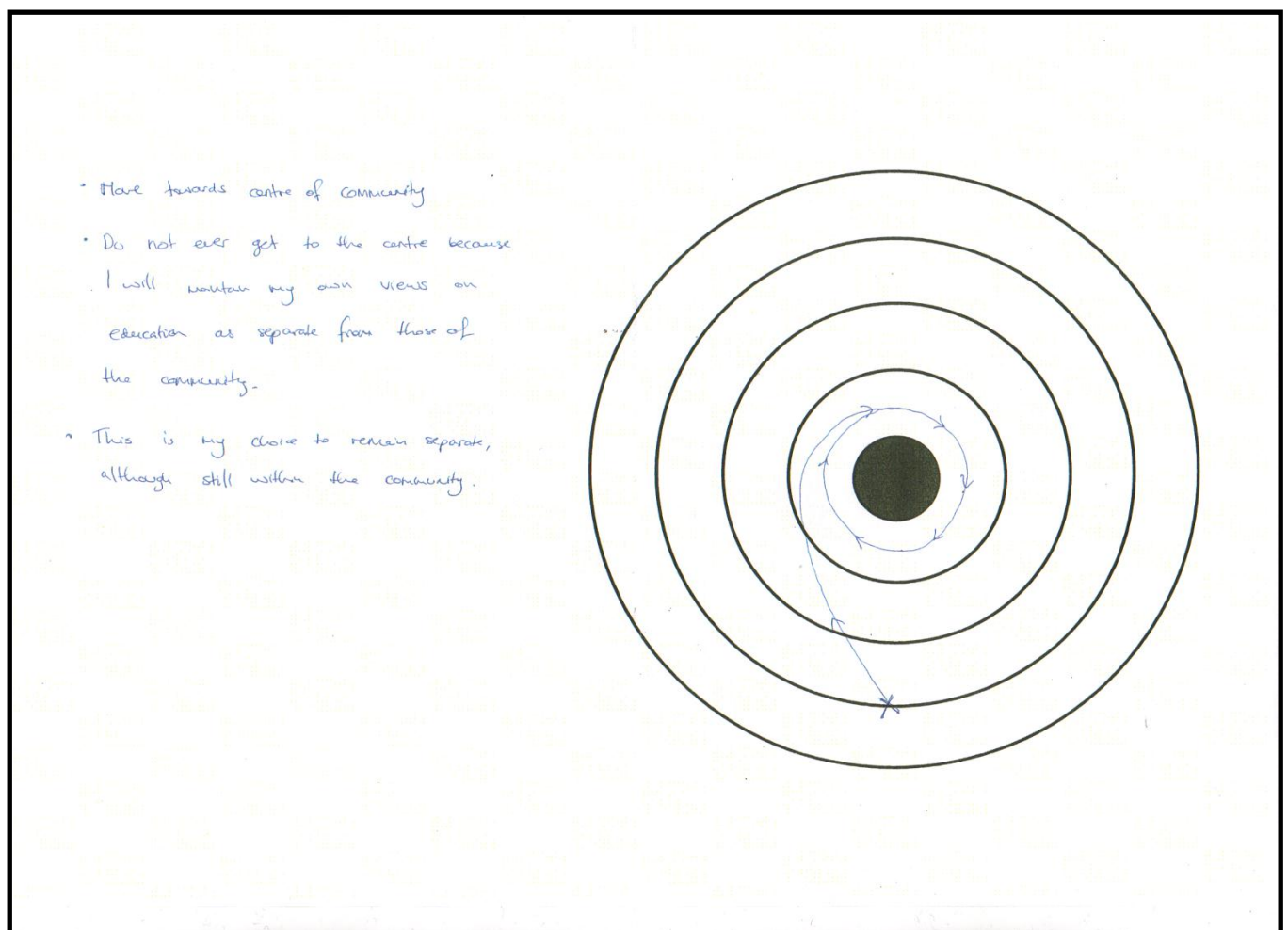


Figure 24 - Trajectory Target - David (Interview 2)

## 10 DISCUSSION

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### 10.1 Introduction

This chapter will highlight and discuss the key ideas, thoughts and beliefs of the participants that were exposed during the thematic analysis of the five case studies and further link these to the literature. As stated in the methodology chapter, the aim of this discussion is not to suggest that these ideas, thoughts and beliefs are common to all beginning teachers and all contexts, rather this chapter serves to provide an exploration of these themes, whether common to all participants or an individual view, to provide the reader with a clearer perspective on the findings of this research.

A number of ideas, thoughts and beliefs were identified from the participant narratives within the five case studies and are shown in Figures 25-27. These figures provide an illustration of the ideas and beliefs that comprise each theme. The unbroken arrows show the relationships between ideas and beliefs as they appear to be represented across the narratives. The dotted arrows or 'lead lines' show how these main ideas are further related to topics that are discussed in this chapter. The grey arrows in Figure 27 demonstrate how these themes have been built on and developed during the analysis and discussion.

The three main discussion themes are:

- Theme 1 – ideas, thoughts and beliefs that highlighted the participants' images of teaching and learning.
- Theme 2 – ideas, thoughts and beliefs that highlighted the participants' images of their professional development, identity and trajectory.
- Theme 3 – ideas, thoughts and beliefs that highlighted the participants' images of the influences on their construing about teaching and learning.

## 10.2 Theme 1 - Participants' images of teaching and learning

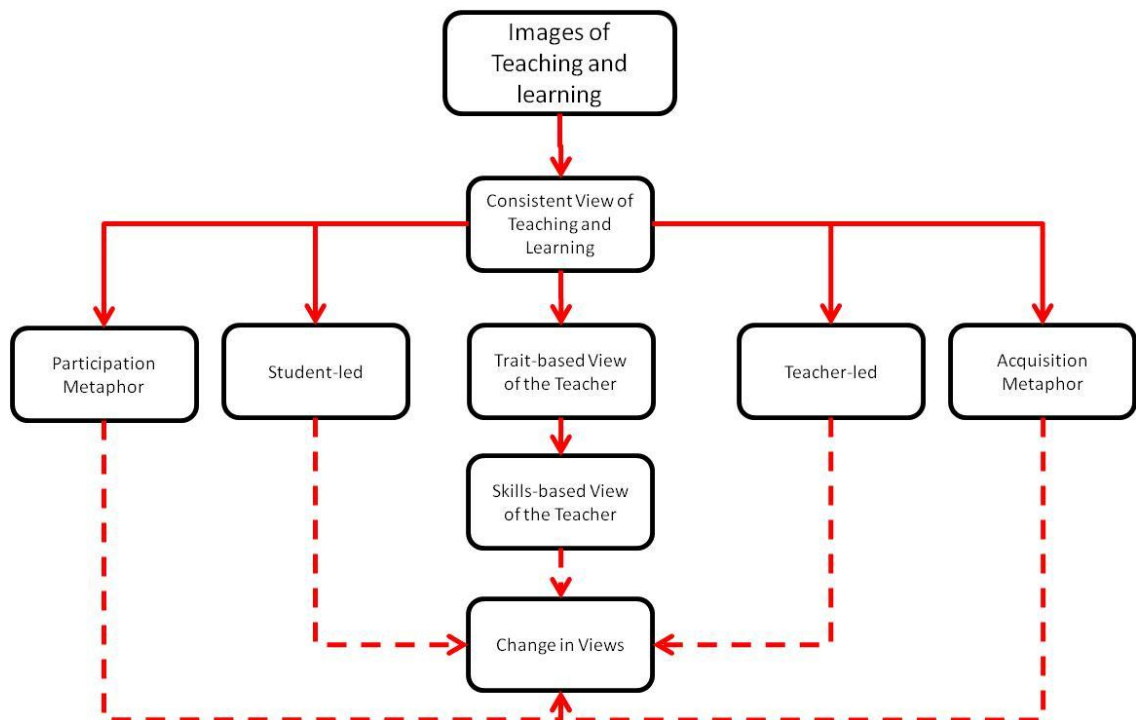


Figure 25 - Participants' images of teaching and learning

### 10.2.1 Consistency of view

Throughout the narratives there was evidence that the participants struggled to maintain a consistent view of teaching and learning and appeared to alternate between two main positions. The first and most prevalent image appeared to view teaching and learning as an activity that involved the transfer of objective knowledge from a source (the teacher) to a destination (the student) and that learning was simply a process in which the student gained progressively larger amounts of information. As highlighted in the previous chapters, this epistemological position is described by Kelly (1969a) as 'accumulative fragmentalism' (p.125), a position that views the learner as an empty vessel who is filled with, and takes ownership of, knowledge which has a commodity-like quality (Fox, 1983; Sfard, 1998). During the interviews, for instance, Sarah suggested that a good lesson was:

*'One where they can get, the following day they can tell you the key learning points because they were genuinely interested erm [pause] as well as a lesson that provokes discussion because the more they discuss it the more likely they are to remember it and if they have come to those answers themselves it's a lot better than you lecturing them...'* (Sarah, A54).

For David a good lesson was something different:

*'Generally, erm [pause] it has to be something that adds value in some way to the people involved and that can be the teacher and the learners, so they have to gain some benefit out of it erm [pause] ... as long as there is some benefit being given then it is worthwhile'* (David, Stanza 77-79).

Paul suggested that what he strived for as a teacher was:

*'That people are taking on board some of the things you are trying to teach them, obviously not everyone's going to take away everything that you teach but if everyone can take away sort of a nugget or two from each of the lessons I think that's what makes me happy'* (Paul, A40).

This image of teaching and learning has been described as the cultural transmission model (Pope & Denicolo, 2001; Denicolo & Pope, 2001) and utilises the acquisition metaphor (Sfard, 1998). Fox (1983) suggests that these views are more representative of what he describes as 'simple theories' of teaching and learning which include the 'transfer' and 'shaping' metaphors (1983, p.154). Fox (1983) goes on to highlight that these simple theories express a rather one-dimensional pedagogy in which what is learned is identical to what is taught. In this view of teaching and learning, the teacher is viewed as being in control of both the commodity and of the transfer process. There was significant evidence, particularly in the early narratives, that this view was mirrored in the beliefs of the participants who viewed successful teaching, and therefore learning, as being centred on the knowledge, actions and qualities of the teacher. Indeed, without exception, the Repertory Grid exercise demonstrated that the participants maintained an image of the teacher that was dominated by personal qualities and attitudes.

Whilst there are some who contend that personal qualities may actually be the decisive factor in effective teaching, and that teacher personality rivals teacher knowledge and skills in importance (Diamond, 1991), this image led the participants to focus almost entirely on their own classroom action with very little discussion of student behaviour or performance during the narratives. This is consistent with the findings of Calderhead & Robson (1991) whose study of student teachers revealed early images of practice that focused on themselves and their own actions with '...very little focussed on possible pupil responses' (p.6).

In Simon's early narratives for instance he described not just what he believes are the attributes of successful teachers but also how these assist with the 'transfer' of knowledge:

*'It has to be the inspirational factor. If a subject inspires you, you learn it all the more readily and not only do you learn it ...and [it] becomes part of your long term knowledge which can then obviously disseminate to others' (Simon, A12 & A13).*

He also suggested that teacher personality might be an innate quality:

*'...I guess I'm a believer that the best teachers are born, you know rather than made so to speak, and you know they are people that have just got a natural affinity for teaching and erm [pause], you know, if you've got that natural ability then you know that's the best training you could ever receive, you know, and for that reason, you know, I truly believe that teaching is more than a profession. I believe it's a vocation, in that sense' (Simon, A16).*

While Garry suggested that everyone can teach, he was also focused on teacher qualities:

*'...you know your own short comings and you know your own strengths ...So there needs to be a degree of self-awareness and there needs to be a degree of sort of understanding of the individual and I think all of those things, when they are all it's just, it's just going through that process. The process is triggered by things such as the PGCE erm [pause] you know there, I truly think that anybody can teach, certain people would be natural and it would be better than others but yeah, I think definitely there is sort of a process that just needs the right triggers' (Garry, A22).*

There was some evidence in the narratives however that the participants were also experimenting with images of teaching and learning at odds with the dominant acquisition/transfer view (Fuller et al, 2005; Fuller, 2007). In particular, there were indications that a more participative and student-led or student-focused approach was being considered. As the main protagonist of this view Sarah commented of her students:

*'...they can't expect to turn up to a class and just learn something without teaching themselves they both need to engage in a sort of reciprocal relationship where you both bring stuff to the table and you share it out and you come away with more than you brought like the bible story [laughs] with the food [laughs] whereas I think sometimes people can come to, teachers will come to a classroom with a slightly more old fashioned view where the teacher stands and is the knowledge...' (Sarah, A56).*

*'[long pause] I think I buy much more into the facilitation thing and less of a sort of didactic erm [pause]' (Sarah, A57).*

David suggested he is developing similar views:

*'Erm [long pause], it's about encouraging the, or inspiring I guess you could say the students to take control of their own learning and to direct themselves, motivate themselves erm [pause] and try and almost do your job for you, in that they just kind of take over, so it's very much the facilitation and empowering them and err [pause] to go away and hopefully continue with that attitude after they have left as well'* (David, A31).

*'Yeah Ok, well [pause] I definitely think that my job is to err [pause] facilitate, you know buzz word but, it's to facilitate what the guys are doing...'* (David, A80).

Paul highlighted how he was thinking about where the responsibility for the learning process lay:

*'I think it's probably [long pause] something that I am trying to do is meet that balance between teacher talk and sort of student talking time student engagement time and because I know I have got quite a dull voice at times I am trying to talk less and let the students talk more so we make it more of err [pause] sort of interactive process rather than sort of briefing really so yeah I am still working towards that I think that's probably the key thing students involved throughout'* (Paul, A35).

Whilst the participants were able to discuss what Fox (1983) describes as 'developed' theories or images of teaching and learning based around a 'travelling' or 'growing' metaphor (p.156), there was very little illustration in their narratives that this image was having any significant impact on the classroom practice of the participants. All the participants appeared to describe the teaching and learning process inconsistently, drawing from a number of 'simple' and 'developed' images (Fox, 1983) and 'acquisition' or 'participation'-based metaphors (Sfard, 1998). There was no evidence to suggest that the participants were using these descriptions strategically, developing hybrid theories, or using them to illustrate particular facets of their practice as has been suggested by Pope & Denicolo (2003). Neither is it being suggested here that, even given the different ontological premises of these views (Hodkinson et al, 2008), the participants should in fact be limiting themselves to a single image or metaphor (Sfard, 1998). Rather, it appeared that the participants were trying to accommodate these images and their implications within their current construct system. Whilst it was unclear where the source of these images lay, the participants certainly appeared less convincing (and less convinced) when illustrating the more developed and participative images. It sometimes appeared that these developed images were being offered up as the 'correct' answer or as a 'cover story' (Connelly & Clandinin, 1995) which masked the participants' true images of teaching and learning that appeared to draw more readily on simple, transfer-based theories. This inconsistency is highlighted by Calderhead (1991) who suggests the fact that teachers can espouse particular beliefs which conflict with



the epistemology implicit in their practice is well recognised. Whilst this research would most certainly agree with Philpott (2011), that beginning teachers learn to story their teaching activity and experiences, it would also go further suggesting that beginning teachers develop multiple stories, for multiple audiences, and the multiple identities they construct are not always consistent and are often used as an experimental validation tool. This appears consistent with Kelly's 'Fragmentation Corollary' which suggests that 'A person may successively employ a variety of construction subsystems which are inferentially incompatible with each other' (1955, p.83).

Avis et al (2002) have highlighted that these different images of teaching and learning present, not just different pedagogical approaches, but different professional identities that are available for the teacher. With the developed theories there is a reduced requirement for teacher identity based on subject or discipline knowledge for instance. As the learner is now at the core of classroom activity, so the teacher's subject knowledge becomes '...both less secure and of less importance when set against pedagogic requirements' (p.31).

Whilst this research does not dispute Calderhead's (1991) contention that students enter teacher education with very different, and often tacit, expectations and perceptions of teaching and learning, the evidence from this research suggests that the belief that the teacher is at the centre of classroom activity remains a dominant one and appears to endure into well professional practice of the research participants. Even though Calderhead (1991) highlights differences in teacher perceptions and images of practice, such as teaching being personality-based versus teaching being experienced-based, he nevertheless fails to highlight that these views suggest that many students in teacher education, perhaps understandably, focus on themselves and their action. This was pointed out to Simon during one of his formal teaching observations:

*'...you know I was giving good lessons, but he [the observer] thought at times there were moments when it was almost as though the focus was upon you know my teaching rather than the students learning and so he recommended to me to keep a teaching log, you know, which I would fill in at the end of kind of each teaching, and err [pause] I got a lot from that err [pause] in terms of making that shift and that was just purely because I think at times there were moments that I was so focused on delivering a good lesson that the delivery of a good lesson became kind of the centre of my attention rather than ensuring that the students were actually learning'* (Simon, Line 766-778).

This aspect of professional development is highlighted by Zeichner & Gore (1990) who further suggest that beginning teachers make a deliberate effort to recreate those teaching conditions they believed were missing from their own educational experiences. Ross (1987)

went further highlighting that beginning teachers also conduct practice in ways that run counter to that they had experienced but were highly selective about the examples they chose to shape and frame their classroom action. They therefore develop, or bring with them, a professional identity based on the centrality of their subject knowledge and their personality. This research has demonstrated some evidence that the participants have maintained this knowledge/personality-based image of their professional identity and therefore relate strongly to simple theories of teaching and learning which clearly place them at the centre of classroom activity, a view shared by Richardson (2003) and Calderhead & Robson (1991). There is also evidence in this research which supports the view of Ross (1987) that participants use practice to create conditions which mitigate the perceived negative gaps in their own education. In describing her route to the teaching profession for example, Sarah commented:

*'...and I suddenly thought "oh I like education and I love learning and I want other people to learn" and especially because I had felt like I'd been disadvantaged at an early age, not through any fault of anybody, just circumstances, I thought I could have an impact on that'* (Sarah, Stanza 63).

It might be further theorised that the participants' apparent difficulty in maintaining a consistent pedagogy observed during this research is much more than just a struggle to accommodate the range of classroom practice that these competing images suggest. Rather, it might be seen as an illustration of a re-evaluation of their professional identity and construing (Horn et al, 2008) and the subsequent complexity that this might involve. It is suggested here then that a teacher's images of teaching, learning, students, curriculum etc., and their corresponding constructs, underpin more than simple pedagogical action, they are the root of a teacher's core professional identity and are, from Lave & Wenger's (1991) perspective, embedded in the context in which the individual is participating. Beginning teachers therefore have to deal with conflicts centred on the development of these pedagogised identities (Atkinson, 2004). Wilkins et al (2012) highlight that this identity development process is an active not a passive one, with newcomers energetically negotiating and shaping the identities available and Maynard (2000) suggests, in this context, learning may involve becoming a different person. This process is therefore full of contradiction, conflict and tension. There was a great deal of evidence for example that the research participants desperately wanted to be part of the community, but also wanted to be themselves.

This contradiction, conflict and tension might be best understood by viewing it through the lens of Kelly's Personal Construct Theory. Butler (2006) highlighted that Kelly's view would

suggest that experiences which fail to validate those core constructs that maintain the individual's view of self would lead to emotion. As previously discussed, Kelly (1955) used terms<sup>13</sup> which include THREAT, FEAR, ANXIETY and GUILT to describe this and terms such as HOSTILITY to describe how an individual might continue to strive for validation evidence for a construct which has failed. As Ryle (1975) suggests, it might be more important to a beginning teacher in the early stages of their classroom practice to maintain a stable construct system rather than to develop a more effective one. As Maynard (2000) highlighted, those participants who were best able to cope with these issues were those who recognised there was a game to play and were actively playing it.

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<sup>13</sup> See technical glossary (p.236) for full definitions of these terms

## 10.3 Theme 2 - Professional development and identity

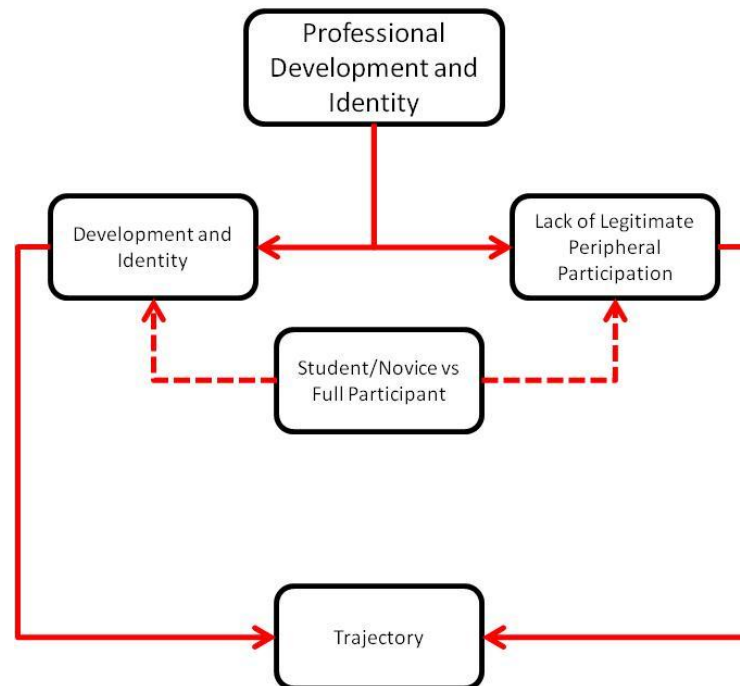


Figure 26 - Participants' views of professional development and identity

### 10.3.1 Trajectory

The research participants all described their professional development trajectories with an expectation of becoming full and active members of the community and practice of their departments and the wider ETS Branch of the Army. The Trajectory Target exercise revealed that, despite different graphical interpretations of the target, all the participants exhibited an inbound trajectory (Fuller, 2007). However, there was also evidence that whilst wishing to become active members of the community, the participants also wanted to maintain an identity that did not result in what they saw as full compliance. In particular, David's Trajectory Target at Figure 24 provides a graphical illustration of the importance of some form of independence in practice echoing Creese's (2005) view that social identities are constructed and negotiated rather than being passively acted out or assigned. An assumption that I had made is that the participants would commence a linear journey from 'novice' to 'full participant' with their progress dependent on the facilitation of 'experts' (Fuller & Unwin (2004)). There was direct evidence that the participants believed that their trajectory was in fact structured by their future experiences and therefore it was workplace opportunity and the extent to which the participants engaged with those opportunities that determined their future trajectories. The view that there is a strict barrier that exists between peripheral and full participation is challenged by Hadley et al (2006) and this is supported by

the research which shows that participation may offer multiple trajectories some, but not all, may lead to full participation as the individual conceptualises it.

### **10.3.2 Identity**

There was generally no evidence of the participants making extensive use of their student or beginning teacher identities. Indeed Paul appeared keen to reject his newcomer and novice status and embark as quickly as possible on the 'learning curriculum' (Billet, 2004), a pathway of experiences that acts as a conduit leading to full participation in the social practices of the community. There was certainly no evidence in this context to support the findings of Avis et al (2002) who suggested that pre-service teachers were not just at the periphery of classroom activity but were marginalized, thus were denied access to sources of support. The research demonstrated there was an almost complete lack of what Lave & Wenger (1991) would recognise as legitimate peripheral participation. The participants appeared to lose the identities as newcomers or students very quickly and seemed to be afforded very little time at the periphery of practice – in fact the transition from student to novice to responsible teacher appeared abrupt. It is unclear whether this was initiated by the community of practice (because of a lack of staff for instance) or because the participants wanted to become full active members of the community. What the research did highlight was that newcomer and student identities were not valued by one or both parties. According to Lortie (1975) this lack of probationary status can lead to increased stress during the early months of teaching practice and means that beginning teachers are often required to work through problems themselves in the same way as more experienced practitioners.

## 10.4 Theme 3 - Influences on construing about teaching and learning

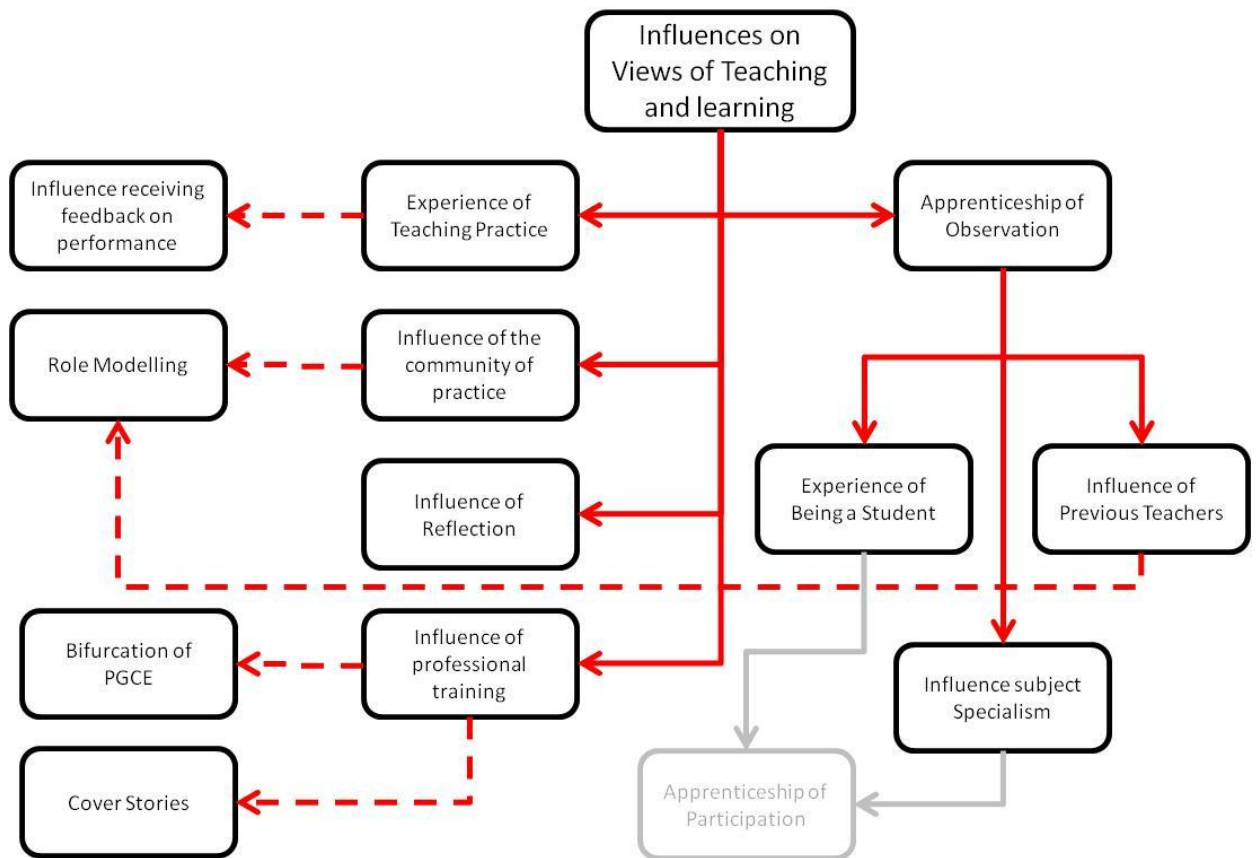


Figure 27 - Participants' influences on construing about teaching and learning

### 10.4.1 Apprenticeship of observation

There was significant evidence that the participants drew heavily on their past experience to frame their professional practice. Indeed, all the participants appeared to have strong beliefs about teaching and learning which they brought into both their teacher education courses and classrooms, and they were able to link these beliefs to their previous experiences. David for example was able to recall a number of teachers:

*'Erm [pause] I, I can, the fact that when I think about my school days I do sort of go back to the same sort of few teachers when I think about this [cough] it probably does indicate to me that they are the ones, you know, have had the biggest effect, erm [pause] and they weren't brilliant in every respect erm [long pause] but there was sort of, with each of them, something particular that I did appreciate...'* (David, Line 509-514).

Some participants were able to provide vivid, detailed and often emotional illustrations of what appeared to be formative or critical events and relationships that had shaped their construing and beliefs about teaching and learning. Others provided more generalised and abstracted images. Regardless, the participants were able to offer rich explanations for their beliefs about teaching and learning, the preferred attributes of teachers, nature of students, and the type of teacher that wanted to become. This is summed up by Banks et al (1999) who suggest that:

'...lying at the heart of the process are the personal constructs of the teacher – a complex amalgam of past knowledge, experiences of learning, a personal view of what constitutes good teaching and a belief in the purposes of the subject – this all underpins the teacher's professional knowledge' (p.95).

That student teachers enter professional practice with a rich biography that shapes their action is well understood (Beattie, 2000; Calderhead, 1991; Calderhead & Robson, 1991; Denicolo & Pope, 2001; Eraut, 1994, 2000a; Filstad, 2004; Goodman, 1988; Hodgkinson et al 2007; Kagen, 1992; Koutselini, 2008; Nespor, 1987; Pope & Denicolo, 2003; Richarson, 2003). Perhaps the most well-known expression to emanate from this view is 'Apprenticeship of Observation' (Lortie, 1975). Lortie (1975) was seeking to highlight that being a school or college student is very much like serving an apprenticeship in teaching because being a student involves engagement and interaction with established teachers over protracted periods. This protracted exposure leaves a rich repertoire of teaching images, models, and practices that become taken for granted and which Calderhead (1991) suggests goes on to shape beginning teachers' beliefs and practices. It also means that a beginning teacher's engagement with, and learning from, their professional education will always be unique in some way. The research also provided evidence that this 'apprenticeship' was not entirely confined to formative, school experiences. Sarah for instance describes teaching she had experienced recently highlighting how it validated her views of teaching:

*'It was awful and I took away a lot of that and the things I didn't like about it are the things I try very hard not to do'* (Sarah, Line 639-642).

Lortie (1975) suggests, that beginning teachers seldom question these beliefs, often constructed in the very early stages of their education, and view them as viable, stable judgements which can be removed from context and generalised – what they perceived as good teaching then, must be good teaching now. This may result in beginning teachers having a strong, often inflexible, and highly individualised view of what teachers do. This may also mean that beginning teachers enter their professional education courses with

expectations and beliefs that may ultimately channel, structure and limit their learning trajectories (Hodkinson et al, 2007).

Whilst Lortie (1975) may have been attempting to illustrate one particularly influential facet of prolonged student-teacher engagement, his term 'Apprenticeship of Observation' does not fully describe the range of influences found by this research to be utilised by beginning teachers. The whole concept of an apprenticeship of observation has been criticised by Mewborn & Tyminski (2006) because, whilst the students experience teaching, they are not privy to the reasoning behind it and therefore build a rather uninformed perception of the teacher's aims and motivation. Indeed Lortie (1975) acknowledges that:

'...is it improbable that students learn to see teaching in an ends-means frame or that they normally take an analytic stance towards it. Students are undoubtedly impressed by some teacher actions and not by others, but one would not expect them to view the difference in a pedagogical, explanatory way' (p.62).

Mewborn & Tyminski (2006) also highlight that any apprenticeship is not deliberate or designed and therefore what is learned is based more on the personality (of both 'student' and 'master') than on pedagogy. Yet even Mewborn & Tyminski's critique fails to touch on the fact that the concept and term 'Apprenticeship of Observation' does more to obscure than to illuminate how beginning teachers draw on previous experience. There are specific instances drawn from this research that demonstrate, for instance, that the participant's perception of their own performance or behaviour in the classroom as a student is at least as influential as the corresponding performance and behaviour of the teacher. Equally, previous occupational experiences and images, as well as domain/subject specific conception of good teaching, were used in equal measure to illustrate beliefs about teaching and learning. Simon for example appeared to be influenced by the type of teaching and studying he experienced as a history student:

*'The other influence has been an academic influence, and that is that during the course of my studies when I studied history'* (Simon, Line 441-443).

*'...when I was kind of thinking of kind of you know the people who have influenced my teaching erm [long pause] a lot of them were, because my degree was history, I you know I'm thinking back to historians you know whilst people who have had educational experiences that were perhaps more grounded in the sciences or you know more technical subjects you know the style of teaching they would have received would be very different to the style I received erm [pause] I guess over the last year I had more influences from other*



*stuff beyond the kind of school of history, where a lot of my kind of teaching influence came from'* (Simon, A148).

These findings concur with the assertions made by Jephcote & Salisbury (2009) that an apprenticeship of observation is only part of the process of shaping the professional beliefs of beginning teachers and that wider life experiences and personal value systems are equally important. These research findings therefore suggest that Lortie's (1975) concept of 'Apprenticeship of Observation' should be subsumed within a wider apprenticeship of 'Experience' or 'Participation' which takes into account a greater range of factors than an individual student's observations. Indeed, anyone's notion of an apprenticeship would hardly be based on observation alone; rather observation would be but one part of a more complex and practical, experiential, participative and reflective process.

However, what Lortie (1975) rightly highlights is that, used in this way, any notion of an apprenticeship of 'observation', 'experience' or 'participation' does not equip the beginning teacher with what he describes as '*...a sense of the problematics of teaching'* (p.65) and that, because of their limited view point, novices view teaching in a simplistic manner. The research findings concur with Lortie's view. At least one participant openly stated that teaching was more difficult than they had anticipated and all participants offered narratives that illustrated the challenges and frustrations associated with their practice. Paul commented for example:

*'Yeah maybe last year I was quick to palm it off and say "yeah anyone can teach" it's just one of those things you just need a bit of practise in the classroom, but yeah I think the PGCE course has made me aware of the nuances the technicalities the complexity of it'* (Paul, A50).

Sarah discussed the frustrations she felt with her lack of experience and her students' expectations:

*'...they wanted more from me, that they were never going to get ...I found that really frustrating because I'm never going to be able to give them that and I felt a bit annoyed because it was wrong of them to want it'* (Sarah, Line 596-602).

*'I said well "to be a good history teacher you don't have to be able to time travel, to be a good doctor you don't have to experience all the ailments that you treat"* (Sarah, Line 627-628).

And Garry highlighted his frustrations in what he felt were unnecessary areas:

*'...you always make the best out of what you can but it takes longer and it's done in such an inefficient way because of the, the failures in administration or failures in low level*

*management or high level management err [pause] and that's where, for me, the biggest frustration comes'* (Garry, Line 884-888).

Equally, as previously discussed, the participants appeared to favour simple theories of teaching and learning that closely matched their professional role, identity aspirations, and expectations which placed them at the centre of classroom activity.

As Lortie (1975) suggested it seemed that neither their 'apprenticeship' nor the formal teacher education they had received at the point of their first interview had prepared them for the reality of practice. For instance, there was evidence in the participants' narratives that concur with those commentators who suggest that beginning teachers move from a liberal and idealised view of teaching and learning to one that becomes increasingly authoritarian (Kagen, 1992). Simon for instance suggested his views about his students had changed:

*'I have become a little bit more cynical when dealing with some [students]. That's something I have certainly noticed in myself'* (Simon, Line 598/A76).

*'I think my views of the [student] have changed a little bit'* (Simon, A84).

*'...when I started I was initially a little bit naive as to you know [students] you know they are going to be really motivated, they are going to be really in to this, and I've now met quite a lot who just haven't been, and err [pause] there has been some whinging some whining and you know at times that's made my work actually a lot harder, and it wouldn't be so bad if perhaps that's all I'd experienced, but I have also experienced students who were really good and were really motivated and that sort of thing when you compare and contrast naturally and you think well why were those bunch so good and these bunch are just so lazy'* (Simon, A85).

*'I think it was just because [stutter] I was a little bit naive in that I really thought I could I could pull them all through kind of thing and its it kind of dawned on me that actually people have to face the consequences of the things they do and if they don't make the effort despite me telling them then I'm not actually doing them any favours by, you know, pasting over the cracks and if they don't make the effort then fail them and let them face the consequences of that failure... You make the effort and if you don't then, yeah, face the consequences of that'* (Simon, A127).

Sarah particularly viewed part of her teaching strategy as '*crowd control*' (Sarah, Line 544). The research found that this authoritarian view was more pronounced when the beginning teacher had a particular conception of their students based on their own self-image as a student. This resulted in a need for control and unwillingness to relinquish the teacher's

position as the central focus of classroom activity. Paul for instance was highly critical of his behaviour as a student and this impacted on his classroom approach:

*'...a couple of teachers kind of took a disliking to me at different stages just because, you know, I think that's the kind of student I was and, potentially the kind of student that I would dislike, I mean I'm a teacher erm [long pause] ...[I have] a short attention span and so I can get, whilst I finished the work very quickly and then would just get frustrated that I was very err [pause] act up or distract other students and just get silly, but...Yeah I would say that they sort of took a disliking to me and you know complications, it got me into trouble. Short attention and that kind of thing'* (Paul, Stanza 47-49).

#### **10.4.2 Professional education**

The influence of the participants' teacher education programme on their beliefs about teaching and learning is difficult to determine, not least because the participants themselves appeared to compartmentalise the programme. The research demonstrated that all the participants viewed their teaching practice to be a discrete activity outside of their professional education, despite the mandated requirement for teaching practice and observation as part of their professional education programme. They viewed their professional education therefore as comprising the more theoretical and reflective aspects of their teacher education. Paul commented for example that:

*'...the PGCE for me is not as important as, say, the actual stuff we are doing on a day to day basis in classroom and that kind stuff, but obviously I appreciate that it prepares me and qualifies me even more ably to do that'* (Paul, Stanza 31).

Simon also illustrated a bifurcated view of his professional education:

*'So that's been the key learning component for me that I have enjoyed. I have found the theoretical side of teaching erm [pause] nowhere near as much enjoyable'* (Simon, Line 279-281).

Drawing on Fuller & Unwin's (2003) terminology, the participants appeared to have separated the 'workplace curriculum' from the formal qualification (p.421). This resulted in initial scepticism with respect to the value of the professional education that has been noted by Connelly & Clandinin (1995) who commented on the fact that theoretical knowledge in teacher education is often presented in the wrong form for practical use and without translation for beginning teachers. This view is supported by Garry who suggested:

*'I would say that the PGCE is err [long pause] I wouldn't say more virtuous, that's not the right word, but more...seems less tangible...'* (Garry, A14).

Pope & Denicolo (2003) highlight that the images held by teacher educators may have implications for how pedagogy is presented to beginning teachers. This research would suggest that one implication is that if these images of pedagogy fail to reflect and inform what beginning teachers find in practice, they will become (initially) dismissive of their professional education. Zeichner (2005) concurs, suggesting that teacher educators should not see their role as passing on knowledge about teaching practice but to develop the ability of the beginning teacher to exercise judgement on when to deploy particular strategies. This means making transparent the individual thinking processes that underpin these judgements. The research highlighted that these issues were magnified because participants, enrolled on practice-based professional education, were essentially full-time teachers, but part-time students. Paul for instance suggested that the PGCE was training him for the job he was already doing (Paul, A10). He also commented:

*'Yeah, you can argue the case for professional recognition, that PGCE does have its purpose in that respect and you know that's where we can turn around to people and say "yeah we are professionally qualified to teach", but obviously the difficulty there is that we are already teaching before we've got our PGCE'* (Paul, Line 343-348).

In the initial interviews, the participants were particularly dismissive of the impact of their professional education and appeared to directly reject the 'technical rationalism' described by Clandinin & Connelly (1995, p.68) which privileges theoretical knowledge over practical knowledge. This privileging of codified over un-codified knowledge is touched upon by Eraut (2007) who comments that because much of this un-codified knowledge is acquired informally through participation in activities of professional communities, it is often taken for granted and the professional education curriculum fails to fully account for its influence on the behaviour of beginning teachers.

Interestingly, however, there was also evidence that whilst suggesting that the course was too theoretical, some participants simultaneously complained that the content was not challenging enough. David commented:

*'...it's not, it doesn't push you, it's quite a basic level, it just feels like I'm having to jump through some hoops erm [pause], and I guess that's probably part of the reason for it, it's the initial stage, it's just to get you to look at certain things [cough] but the requirement on the written assignments, I can knock out, knock them out in a day and a half without really having to engage my brain, err...'* (David, Stanzas 51 & 52).

Sarah agreed commenting:

*'...and I find that quite frustrating. Erm [pause] I find the fact that it is just pass or fail irritating because why would you try hard, there is no motivation to do well it if just a pass or fail, and I'm busy I've got plenty of things I could be doing'* (Sarah, 289-292).

Guskey (2002) points out that any professional education or development programme will fail if it does not take account of what motivates teachers to take part and the process by which change in teachers typically occurs. Guskey (2002) contends that the assumption that a change in beliefs can be achieved prior to the implementation of new practices and strategies is flawed because, in reality, this approach often fails to elicit strong commitment from practitioners. Rather, it is suggested, changes in beliefs and attitudes come primarily following evidence of improvements in student performance - a view that is entirely in line with the thinking of Kelly (1955) and the general constructivist approach. There is certainly evidence in this research that suggests that the participants were strongly influenced by ideas and practices they had observed, rather than those they were introduced to in the formal learning environment, and this was illustrated well by Simon who explained:

*'Erm [pause], I think [stutter] a lot of it has been kind of you know sharing ideas with my peers and that sort thing, you know so, I've seen some really good examples of teaching practice. Which erm [pause] I've thought "oh that's really good" you know "I'd like to use that" ...Yeah it was a direct erm [pause] member of my peer group if you like, and he gave a demonstration of him teaching the same lesson but what he had devised was almost like erm [pause] well he'd made a game ...but it was very interactive because obviously the students were at the centre of the game and it introduced that element of competition and that was something very different from my approach to it that appeared to work equally well, you know we swapped resources and all that kind of thing and you know I tried it and it worked successfully and I thought "actually I'm going to keep using this". "This works, this does the business"...' (Simon, A93, 727-728, Stanza 198, 202-203, A96).*

Indeed, Guskey's (2002) contention may go some way to explain why during the initial interview the participants, who undoubtedly commence their studies with significant biographies and 'apprenticeships' but had experienced very little practice at this point, appeared so unmoved by their professional education. It also confirms the point made by Littleton & Wood (2006) and numerous others, that learning is not confined to formal settings or programmes.

Mewborn & Tyminski (2006) make the further point that Lortie's (1975) 'Apprenticeship of Observation' has therefore become synonymous with the claim that teachers teach in the manner that stems from their biography. This, they suggest, explains the apparent lack of influence of teacher education programmes on beliefs about teaching and learning. This is

also a popular view with situated learning theorists like Lave & Wenger (1991) who tend to dismiss the importance of formal education (Fuller et al (2005)). Whilst Mewborn & Tyminski's (2006) view might be intuitively attractive, this research provides evidence of a rather more complex process in which the participants become more influenced by the theoretical aspects of their professional education over time and this finding challenges the view that professional education does not significantly influence beliefs about teaching and learning. There was clear evidence for instance that David found his professional education course highly influential in its latter stages:

*'Yeah [long pause] the moment I sort of realised it was when I was doing erm [pause] a piece of work for my PGCE... The nature of that piece of work is that it was one of the first times you actually really engage you brain as well. Yeah. Erm [pause] and it was doing something a bit different so I had to really actually think about what I was doing, so yeah I guess it was just that I saw the first ...the first time I kind of put all of the different parts of sort of educational theory together' (David, Stanza 220-223).*

*'Err [pause], I hate to say it but I think actually the PGCE has been quite good for that. Just because it has err [pause] expanded you know my theoretical knowledge which I've then been able to relate to stuff that has been happening in the classroom...'* (David, A44-A45).

This was also true for Paul who also had a new found respect of his professional education in the second interview:

*'I think for me the best sort of indicator of it is that way I've engaged better with the year 2 PGCE and that is the professionals qualification for erm [pause] for our teaching erm [pause] because for the most part I think it was it must have been this interview last year if not sort of immediately after the BT course I was quite resistant to the idea of the PGCE because we were already in post doing the job that the PGCE was training us to do, but you know I think my view on that has matured and it made me more aware of the value of it' (Paul, A42).*

And for Sarah who was able to highlight how her practice had been influenced by the PGCE:

*'I thought the first year had no effect whatsoever. I quite like writing essay so that was pleasant. This year has been much better there has been four modules that have really helped develop my practice. The Action Research is good on motivation and I have used my findings from that to teach Pashtu and English which was really good, erm [pause] we did one on err [pause] sort of helping and supporting in the classroom using a skilled helper which I have subsequently used which is also good. I wrote a curriculum for English Language training which whilst I haven't written done the curriculum assessment yet will, I*

*will write it on that curriculum that I wrote, that's really nice, and the reflection on a reflection on your reflection is still a waste of time [laughs]* (Sarah, A71).

It is interesting that, as an apparent advocate of the claim that teacher education has a low impact on students, Lortie (1975) commented ‘...it may be true as some suggest, that pedagogical instruction makes more sense after one has taught awhile’ (p.76). This certainly concurs with the findings of this research which demonstrates that some of the participants developed a significantly different view of their professional education during the second interview. One explanation might be that during the first interview the participants were primarily dealing with what might be termed ‘classroom survival’. Eraut (2000b) comments that complex capabilities take time to develop and may require the steady and reliable foundations that can come from the confidence gained from less ambitious classroom practice.

Yet for Simon, still holding a compartmentalised view of his training, he maintained his professional education had not exerted a noticeable influence on his views:

*‘Aside from the PGCE observations, the teaching fellow observations and subject specialist observations the rest of it hasn't really influenced me that much’* (Simon, A112).

*‘I guess the err [long pause] the work just wasn't interesting enough, the assignments were very much jumping through hoop exercises, I didn't find them academic in the sense of if I'd have been doing a history topic, ...it just seems like an exercise in name dropping’* (Simon A113).

There was very little evidence to suggest that, even at this early stage in their professional practice, the participants were anything other than fully engaged in their departments’ teaching activity. Again, Lortie (1975) reminds us that the first few months of teaching can be an ordeal and that this ordeal is very often in reality a private one, which sees the beginning teacher working alone in isolated classrooms. Even as beginning teachers, the findings from this research certainly concur with Viskovic & Robson (2001) who suggest that often teaching is a solitary activity with few opportunities to see colleagues teach, be observed or be given feedback. It might be safe to hypothesise therefore that at the time of the first interview, any professional education that did not contribute directly to improving the participants’ chances of ‘survival’ in the classroom would be characterised as unimportant. It is suggested here that it is only later, when the participants appeared more comfortable and experienced in their craft and had ‘routinised’ some aspects of their practice that they had the confidence and intellectual space to begin to think about pedagogical strategies – the ‘feed-

forward' problem (Korthagen & Kessels, 1999) described in Chapter 1. David provided some indication of this in his second interview commenting:

*'...I can sort of let my personality take over and actually just talk to the guys and have a chat with them and stuff. Whereas at the beginning, I could not have done that'* (David, Stanza 211).

*'The other thing is I have noticed as well which is, I think I was probably aware of it before and I'd hoped it was the case, is that now I've become more comfortable with the sort of technical side of teaching I've actually been able to move slightly away from being so rigid as I was in the beginning. I had to be quite rigid in terms that if you do this then you do this and you do this, erm [pause] and I've managed to move away from that so I can be more flexible and take it with how the guys where they seem to be preferring to want it to go I can be a bit more flexible in the lessons now'* (David, A43).

Sarah agreed, commenting:

*'I think because I panic a little bit less about the little things like delivering a lesson, it's starting to become a bit more like core business, and it's enabling me to get involved in like bigger things...'* (A85).

Lortie (1975) appears to sum up this hypothesis commenting that:

*'Their professional training, in short, has not linked recurrent dilemmas to available knowledge or to condensations of reality (e.g., cases, simulations) where such issues are deliberated. The repudiation of past experience conjoins with intellectual isolation (a historical feature of teacher training) to produce curricula that extol the highest virtues but fail to cope with routine tactical and strategic problems ...Since they have not received such instruction, they are forced to fall back upon individual recollections which in turn are not displaced by new perspectives'* (p70).

What Lortie (1975) appears to suggest here is that beginning teachers, such as the research participants, appear to draw on images of teaching derived from their personal biographies as a way of dealing with what he describes as the 'routine tactical and strategic problems' (p.70) of the classroom. Lortie (1975) clearly points at professional education programmes that fail to understand the 'recurrent dilemmas' (p.70) of a beginning teacher as a reason for this, however, this might be somewhat unfair. Rather, adopting a Kellyian view, one might hypothesise that beginning teachers are simply using approaches, applying beliefs, adopting identities and utilising constructs that they have observed working (or not) during their 'apprenticeship'. As beginning teachers, they have not yet had the opportunity to validate or



invalidate these constructs through experience in the classroom. Until such time as they have been able to 'experiment' with these images, receive feedback, reflect on their findings, and then experience the ANXIETY<sup>14</sup> (Kelly, 1955) that follows the sense that an approach or construct appears to have a limited utility, beginning teachers may be unlikely to appropriate those competing approaches they are introduced to in the initial stages of their professional education. This view appears to be supported by Burn (2007) who contends that:

'...the development of professional knowledge is thus conceived of as a form of hypothesis-testing, a process in which student teachers are clearly recognised as active constructors of their own professional knowledge who come to understand new practices through the lens of their existing knowledge and beliefs' (p.446).

Burn (2007) goes on to highlight that professional education should therefore acknowledge the strength of beginning teacher's preconceptions and create a climate in which '...all ideas, from all sources, including the students' personal histories, will be subjected to critical scrutiny and careful evaluation' (p.447). Despite this view, the majority of teacher education programmes strive to mould teacher beliefs and often privilege one set of beliefs or one approach over another. Research conducted by Tatto & Coupland (2003) found that beliefs are expected to change through educational interventions that provide classroom experience, opportunities for reflection, opportunities for understanding oneself, and theoretical and applied knowledge about subject matter, pedagogy, students, learning, curriculum etc. As Chapter 1 highlighted, this appears to have become the standard pedagogical approach to developing teacher education programmes. Whilst not necessarily disagreeing that teacher education programmes should comprise of these four components, the findings from this research would suggest that considering the order, or blend, of these components could significantly alter both the student experience and the effectiveness of such programmes.

### **10.4.3 Teaching practice and school experience**

The research findings indicate that the teaching practice conducted by the participants had a noticeable influence on their beliefs about teaching and learning. When asked to rate how influential the experience of teaching had been, three of the participants indicated that their experience of teaching was the most influential element in learning to become a teacher. Simon commented for instance:

*'I'm learning a lot more in my classroom experiences than I am from my PGCE essays and so forth'* (Simon, A43).

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<sup>14</sup> See technical glossary (p.236) for a definition of this term

Summarising much of the preceding discussion, Eraut (2000b) highlights that teacher education is a practical as well as cognitive pursuit commenting:

'...people learn how to teach through doing it, but they also rely on images of teaching for guidance. These images give teachers confidence that they are doing what is expected, what is thought to be right. Reading about a new approach to teaching may appeal to one's beliefs but unless that approach has been seen in action, there is no reassuring image when one tries it out oneself' (p.564).

Eraut (2000b) highlights the importance of experience in providing a mechanism through which the constructs that underpin beliefs can be put to the test. This is most effectively described by Rogers (1967) who comments that:

'Experience is, for me, the highest authority. The touchstone of validity is my own experience, no other person's ideas, and none of my own ideas, are as authoritative as my experience. It is to experience that I must return again and again...' (p.23).

Thus Pye (1994) suggests that when Kelly (1961) asserted that 'it is learning which constitutes the experience' it might also be added 'it is the experience which constitutes the learning' (p.168). Wenger (1998) offers an alternative view of the importance of practice suggesting it provides resolutions to conflicts, supports communal memory, helps newcomers join the community, generates specific perspectives and terms and makes the job 'habitable' (p46). As practice is carried out in a historical and social context, it is always social practice whether it is conducted with others or not.

There was evidence that, for some of the research participants, teaching practice was as much about becoming a full contributor to the activities of the department as it was a chance to gain classroom experience. Practice itself had become the curriculum (Lea, 2005) and was providing the physical and conceptual resources necessary for the creation of professional identity (Ellis, 2007). This concurs with the findings of Tooth (1996) who contends that practical training is more likely to change attitudes and beliefs because there is more flexibility in the workplace setting to accommodate aspects of training that the newcomer is comfortable with. In contrast, there is often little room to diverge from theoretical work. Knight et al (2006) argue that professionals can learn six times more from the non-formal, professional education based in practice. Tooth (1996) goes on to highlight that practical training more effectively fulfils the socialisation aspect of professional education and that newcomers develop competence not just through developing knowledge and skills but also by understanding and responding to their own and others' behaviour. The professional communities provide the mechanism for the transmission of tacit knowledge, the

reproduction of routinised behaviour, and the allocation of roles. (Lorenz, 2001). Tooth suggests that ‘...professionals soon learn what role they are expected to perform’ (p.253). Beginning teachers observe their more experienced peers and acquire the language and worldview of their community. Thus they are not just acquiring explicit and formal ‘expert knowledge’, but the ability to walk, talk and act as community members. As previously highlighted, Calderhead & Robson (1991) argue that the school experience may be so powerful as a socialising activity that it ‘washes out’ the effects of professional education and training (p.2). Whilst this research did find that teaching practice and school experience was influential, there was no evidence found to suggest that practices learned during professional education were being reversed by practice. There was evidence however that different types of professional education courses exerted different amounts of influence over the participants. Sarah, for instance, was extremely positive about the impact of her Certificate in English Language Teaching to Adults (CELTA) training on her general pedagogical approach:

*‘Well I certainly plan my lessons now as I do for CELTA, ...Because I think the PGCE is more useful than I thought it was going to be last year but I think it is even more useful to take strategies outside the PGCE PCET and work them in’ (Sarah, A80-81).*

Lortie (1975) cautions against over emphasising the importance of the school experience because beginning teachers’ exposure to practice can be partial, mentoring can be variable and the newcomer is not forced to compare and contrast what they have witnessed. Lortie (1975) suggests school experience may be ‘earthy and realistic’ but it is equally ‘short and parochial’ (p.71).

#### **10.4.4 Reflection**

Richardson (1990) highlights that whilst classroom experience might not be the ‘best’ teacher for isolated and inexperienced practitioners it is an extremely potent one. Richardson (1990) makes the point however that classroom, or indeed any kind of experience, is only educative with reflection and Burr (2003) highlights that ‘reflectiveness’ is a process that informs future conduct and makes choices possible (p.194). Knight et al (2006) suggest that reflection is the ‘...engine of intentional non-formal professional learning, especially when it encourages a melding of experience, context, research and theory’ (p.337). This implies that any teacher education programme must view reflection on current and previous experiences as a key building block of professional development. The research data provided evidence of reflection being used as a tool by the participants to raise their awareness of the practical knowledge they currently possess or are acquiring through experience (Diamond, 1992). David highlighted that he recognises reflection as an influence on him:

*'Yeah, I guess reflection is, I probably should have had it in there as one of the important ones but yeah'* (David, A56).

The reflective process is also a fundamental element of beginning teachers' understanding how their practical knowledge is being deployed, the utility of their practical knowledge and the areas in which its shortcomings must be addressed. In short, whilst it has been argued here that beginning teachers' constructs are often validated through social practice, the process by which the social validation influences personal constructs or 'mental structures' (Koutselini (2008, p.30) is a reflective, cognitive (Etherington, 2004) and essentially private one. This view has been widely challenged by those who argue that this is not necessarily the case (Cohen, 2010; Koutselini, 2008; Pye, 1994; Turner, 2008) and that reflection is actually more effective in influencing practice when conducted and shared with others. Whilst there is evidence that the participants valued shared reflection, particularly when conducted with their cohort, this rather misses the point; shared reflection is simply another social validation process which, whilst educative, is only realised through an internal process of reflection on personal constructs. Suggesting that validation is anything other than a highly individual, internal and personal process is directly at odds with the constructivist and personal construct psychology approach of this research and leads to worrying conclusions about the ability of practice to change and because, as Leitner et al (1996) highlights, of the role of power relations as a validating agent in communities of practice. It should be noted however, that this research concurs with the view of Pye (1994) that reflection only makes sense in reference to a particular context and action which may or may not be social. The value of reflection in the whole teacher education and development process is conceptualised by Horn et al (2008) and Burchell et al (2002) who view learning to teach as a process of constructing a repertoire of practice and developing pedagogical reasoning, through reflection, about the utility and deployment of these practices. The further point made by Horn et al (2008), that the rejection or adoption of a particular practice is as much an assertion of teacher identity as it is a pedagogical assessment, is entirely in accord with the findings of this research. Pye (1994) goes on to suggest that learning from experience through reflection should be viewed as 'pushing back limitations' rather than adding 'pieces to a jigsaw' (which, as discussed earlier, implies a particular epistemological position) and it is those limitations that 'makes' the person as they are now (p.168). However, there was evidence that the participants reject the kind of formalised reflection that was part of their professional education syllabus. Sarah commented that the formal reflection was a '*waste of time*' (Sarah, A71) suggesting:

*'I think that's because I reflect all the time, naturally because I think about things a lot I don't need to write a 2000 word essay on the fact that I thought about something, the fact that I*

*had thought about it already, because I thought about it myself [speaking more and more quickly] and afterwards [laughs]* (Sarah, A72).

Simon was equally critical of formal reflection:

*'...but generally if you have got your wits about you you're never going to go into a class that for some reason, let's say an activity fails or any sort of negative experience, you are never going to go away from it put your hands on your head and think "oh yeah that was good I'll do that one again", you are always going to walk away and think "that could have gone better, next time I'll do it this way". Surely you know that's a given, this idea of continuously reflecting on it, keeping a reflective diary, writing a reflective commentary, and then writing a reflective essay about a reflective commentary, I just kind of think, you know, I'm now reflecting for the sake of it and before I know it there is suddenly two or three personalities sat behind a desk, you're feeling a bit schizophrenic and you feel like you are really trying to write for writing sake, rather than the core component of teaching learning so to speak, rather than focusing on that which I think is the practical area'* (Simon, Stanza 81-86).

#### **10.4.5 Community of Practice**

There is a great deal of literature surrounding the concept of communities of practice; the key ideas, particularly of Lave and Wenger (1991) have been previously discussed. There is significant evidence within the research narratives of the influence of the community of practice on the participants' images and constructs of teaching and learning. These mainly, but not exclusively, centre on the influence of official and unofficial mentors, peer-to-peer engagement, observation of practice, and feedback. Diamond (1991) articulates a hypothesis that is at the very heart of this study suggesting that viewing teachers as psychologists, as Kelly (1955) might, emphasises the importance of their personal motivations, conceptions of teaching, and the way in which individuals make sense of their social worlds. However, these social worlds also influence the way in which individuals construe. Diamond (1991) writes:

*'Everything people do, say and even think is a product not only of their personal processes but also of their interaction with other people. People tend to affect the constructions of others in a number of ways: they may change the way reality is seen; they themselves may enter the reality of others; they too have constructions that must be considered in interacting with them; and finally they have their own constructions of the others'* (p.69).

This is not at odds with the view that the maintenance of construct systems through reflection is a personal and internal process, but suggests rather that social worlds influence what is

validated and therefore how individuals construe. Paul for example shows how he has been influenced by his community of practice:

*'Err [pause] I think probably quite similarly I've kind of fallen into line possibly where I might have had different views a year or so ago' (Paul, A56).*

*'I think I've naturally progressed, developed and even learned from colleagues' (Paul, A57).*

*'I think in terms of the support err [long pause] everyone comes in to an extent with their own view of how they want to teach and what they want to be as a teacher erm [pause], and that can sometimes be different from what the organisation expects erm [pause] I think I've become more aware of how I have potentially compromised on certain aspects of potentially my naive thought of what I wanted to be as a teacher potentially compromised on some of those to you know fit within the community and I say I think a natural thing we all do as individuals you compromise on certain things to become part of the community' (Paul, A81).*

Sarah identifies a number of potential communities but highlights her lack of access to some:

*'I think in that office where the CLM instructors are it is really similar, there's a real willingness to share, have meetings, erm [pause] improve each other use each other so that's really nice. I think between us and the Officer Tutors that doesn't exist erm [pause] ...and you think what a waste that you put us with other Officers and you just never see each other and that's a real shame' (Sarah, A76-77).*

**Mentors and role models.** Ryle & Breen (1974) highlight that for beginning teachers the identification with and role modelling on supervisions, managers and tutors is likely to provide powerful influences. This view is corroborated by the Repertory Grid data which demonstrates that all the participants construed the influence of their mentors positively, with most participants closely associating their mentors with images of their future selves and the teachers they would like to become. Garry for instance cited guidance from his mentor as the most influential factor in his professional development as a teacher whilst Sarah and Paul both suggested conversations and observation of their colleagues were the most influential. The direct role of mentors, where it was illustrated, appeared to be in line with that described by Edwards & Protheroe (2003) which was to help the beginning teacher recognise and respond to the complexity of practice through 'guided participation' (p.239) and, where required, act as the gatekeeper to practice (Philpott, 2011). Edwards & Protheroe (2003) suggest however that support offered by mentors is highly practical and applied with few links to theory. Mentors, as with many expert practitioners, may also find it difficult to talk about the ideas and assumptions that underpin their practice. Indeed, Edwards & Protheroe (2003) found that much mentor support and feedback was not aimed at examining and

analysing the tacit ideas that shape classroom practice, but polishing the visible performance of the beginning teacher.

When it came to role modelling, this appeared to be a rather more opaque and individual process. Whilst the community of practice seemed to provide a range of 'possible selves' (Ibarra, 1999, p.765), and therefore represented an important knowledge source for beginning teachers (Filstad, 2004), much of the role modelling that was described in the narratives was centred on particularly influential individuals with either an official mentoring role for the participants or what Colley et al (2007) describe as an 'accidental tutor' (p.174). It was clear in the narratives that the process of becoming a teacher represented what Ibarra (1999) describes as a 'status passage' (p.766); that is, it was an opportunity to renegotiate and construct new social, personal and professional identities.

There was evidence in the research the participants testing a range of these new, 'provisional' identities (Ibarra, 1999, p.767) and roles although when interviewed Sarah rejected the idea that she may adopt a different identity or become a different person.

*'No, I think that's a really, that's a really bizarre question. Because I don't think there is a change in what you are [pauses between each word] before and what you are after you are still yourself, you just learn extra skills, I don't think a teacher is like, [laughs] I don't know, a teacher is person it's not a thing'* (Sarah, A24-25).

*'I don't think it changes you, if you are the kind of person that wants to be a teacher I don't think getting a couple of letters after your name makes you any more or any less of a teacher, if you don't want to teach if you have a teaching degree it still doesn't make you a better or worse teacher. I think it's your desire to want to impart knowledge to others in a formalised environment, like a classroom, that makes you the teacher I don't think that...'* (Sarah, A26).

Indeed Sarah had a rather different idea about how a teacher might deploy different identities:

*'Yeah, professional identity is what you construct around yourself, yeah because then you then you when you stand back in the classroom, I think that's different. A professional identity that you construct around yourself in order to perform in the classroom which is what a lot of teaching is I think is entirely different to how you see yourself as a teacher'* (Sarah, A28).

Describing this process, Ibarra (1999) suggests that beginning teachers build a repository of behaviour to draw on through two specific processes: by identifying what constitutes credible role performance ('role prototyping') and comparing this role performance against their own

('identity matching') (p.774). The research not only provided evidence of both of these process in action, but also demonstrated the level of detail that the participants were able to describe about their perception of good and bad examples of practice. Indeed, the participants seemed able to identify and draw equally well on what they believed to be examples of poor practice or personal qualities:

*'I was doing lots with [colleague]. I would meticulously prep [sic] lessons, resources, activities and [colleague] would just have a bit of a discussion but it didn't really get anywhere she hadn't prepared her questions enough so it drove nowhere a little bit round the houses and really didn't pull out the key learning points err [pause]. I think it's mostly because she is a bit lazy, erm [pause] and she hasn't really done much teaching. I think that now she's [a higher grade] no one can tell her that, so I don't want to get into that part where you don't reassess your own ability and get complacent in what I deliver'* (Sarah, Stanza 186-189).

*'I think this is about not getting old [laughs] in that graph [Repertory Grid] I looked across the whole way back through I noticed I marked the [community or practice] lower than I marked myself and my peer group, and myself and my peer group are always higher than a lot of my colleagues, and always all three of them are better than the community of practice. I think some people stick around in the ETS and deliver a substandard product and there's no one there to quality assure them and to pick them up for it'* (Sarah, A70).

Lortie (1975) contends that where newcomers conceive of teaching as expressing the qualities and attitudes of 'revered models' they will be less open to other conceptions (p.67). Whilst some participants provided strong and emotional narratives of these so-called revered models, this research found no evidence that they were any more resistant to new concepts of teaching than other participants who provided weaker narratives in this area.

The participants appeared not to adopt provisional identities in their entirety, but carefully selected specific ideas and behaviours. Paul highlighted this commenting:

*'I mean it's you know elements of having seen other people I think "ok that I'd like to emulate, and that I'd like to emulate from over there", and I think to want to be just like someone else would be kind of you know it wouldn't be individual and, you know, whilst they might be the most brilliant teacher it's something that you potentially have to work very hard to alter yourself as oppose to making the best of your lot and, so, yeah...'* (Paul, Stanza 100-101)

That newcomers tend to select particular characteristics and traits from a range sources is well understood (Bucher & Stelling, 1978; Filstad, 2004; Fisher, 1985; Maynard, 2001; Rock, 2005; Shapiro et al, 1978) and beginning teachers' use of established colleagues has been described by Filstad (2004) as 'multiple contingent role modelling' (p.401) and by Maynard



(2001) as 'selective construction' (p.45). The thoughts of Unwin (2007), which concur with the findings of this research, is that a broader viewer view of 'apprenticeship' is required that draws the focus away from a master/student relationship to one of participation – this research would go further, suggesting that beginning teachers still engage in an apprenticeship but the community, not an individual, is the 'master'. It is this kind of 'master' that validates the actions of the newcomer and shapes their community participation.

There was also evidence of the participants claiming not to use role modelling, suggesting that they do not identify with anyone and that they prefer instead to develop what they see as their own style. David commented for instance:

*'Erm [pause] there are several teachers and things, there wasn't anybody in particular, there wasn't one individual have never really kind of pinned myself to one idea or person because I've always thought that's not broad enough. ...there has never been one person who stood out'* (David, Stanza 25-26).

Filstad's (2004) research found there was considerable inconsistency between the explanation and behaviour of the participants, however, this study found no such contradiction; some participants believed they were influenced by role models, others claimed not to be.

Whilst there was evidence that the participants used both internal and external validation of their provisional selves (Ibarra, 1999, pp.779-781) it appeared that internal validation, or true-to-self strategies (i.e. being the kind of teacher they had aspired to be), were highly influential in determining whether to discard or appropriate an identity. This finding corroborated Maynard's (2001) view that beginning teachers need to develop an identity that was personally satisfying as well as productive and relevant for the community. It was noteworthy that the participants initial identity constructions were based on partial, naïve and often simplistic views of their role and this led to the participants being highly critical of many colleagues in their first narratives (Ronfeldt & Grossman, 2008). This appeared to reduce in the second narratives as the participants developed more accurate role images, became more experienced and, arguably, less idealistic.

**Peer-to-peer engagement.** Doecke et al (2000) draw attention to the role of 'exploratory talk' (p.344) between beginning teachers which enables them to construct narratives about the complexities of their work in the classroom and in the community more generally. Within the research there was evidence that much of this peer-to-peer engagement and learning occurred through contact with their cohort (located within different communities) and therefore, as Boud & Middleton (2003) highlight, it was learning that crossed the boundaries

of their formal community of practice and so circumvented what might be considered the traditional knowledge hierarchy of the formal community. This suggests that learning and gaining support from peers (Brannan, 2007) in this case was achieved through membership of multiple and overlapping communities, similar to those described by Craig (1995) as knowledge communities and in a way that as Wenger & Snyder (2000) highlight make them resistant to formal management or supervision. There was evidence that these communities were highly valued by the participants. A number of the narratives highlight for example that the most beneficial aspect of the formal, theoretical part of their professional training (the Alpha and Bravo courses) was the opportunity to regularly come together with their cohort and share experiences. However, there was evidence that the participants did not adopt the practice of their peers without question. Those activities seen to work for peers and colleagues subsequently became 'candidates' for inclusion into the expanding repertoire of practice. However, the final judgement was only given if the activity was seen to 'work for me'. Highlighting this approach David commented:

*'...I think that you probably, all teachers probably work out, eventually, a sort of style that they have, like their toolbox they are not going to have everything in there but it's good to try and, you know within your toolbox, to mix things up and to try different things to get a better effect. But it's also good to try and go beyond it and bring things in and try things that you've never really tried before or you know just in a slightly different way'* (David, Stanzas 99-102).

*'Yeah definitely at the very beginning of micro teaching you know I had I probably started with my version of '101' how to teach, and erm [pause] but then you see everybody else is doing their lessons and you start incorporating different ideas'* (David, Stanza 103)

*'It's been useful to see different people's erm [pause] approaches to teaching erm...'* (David, A48).

#### **10.4.6 Observation**

There was evidence to suggest that the influence of peers and colleagues also extended to watching them work in the classroom:

*'Yeah, yeah by my colleagues and the experiences that I have had with them, because it's not just them and their experience it's about like what they are like when they teach and I've tried to watch people a lot erm [pause] because I think you can learn the most from watching others'* (Sarah, A69).

However, there were very few other illustrative examples of this in the participants' narratives. This might be because, having rejected their peripheral, novice and student

identities, and adopted those of full participants, the beginning teachers struggled to find the space to conduct this type of observation.

#### **10.4.7 Feedback**

There was some evidence in the participants' narratives of the importance and influence of feedback on their approach to classroom practice and their beliefs about teaching and learning. David described what he perceived as his development requirements, commenting:

*'It was just a trend I've noticed in terms of when we had, when we did micro teaching in the class the whole class would then give feedback and also the tutor, in my case it was [teacher educator], erm [pause] and I just noticed a couple of times different people kind of came out with the same points and then since then I've had on my attachment and here I've had two teaching fellow observations and one subject specialist observation [cough] and the feedback's roughly been along the same lines'* (David, Stanzas 63-64).

*'Err (long pause) I've had observations from quite a range of different people now erm [pause] I don't think I've had two observations from the same person, at teaching level, err [pause] but as a group I think they've been quite influential erm [pause] ...having different people means each person has picked up on something slightly different, err'* (David, A88)

Paul highlighted how he felt feedback had been influential:

*'Like I mentioned before based on some feedback and observations which are all part of the PGCE course erm [long pause] I'd like to think that I've become more professional erm [pause] I've been more open to sort of trying experimenting in the classroom trying new things [cough] stepping out of my comfort zone a bit and I think that's having developed an awareness of sort of students as not sort of terrifying individuals they are open to change and us trying new things as well...'* (Paul, A62).

Simon added:

*'And it's also been quite good being observed as well by, you know, our teaching fellow observations and subject specialist observations, the feedback from those has been very good, erm [pause] you know both in terms of positive criticism and you know learning for the future'* (Simon, Stanza 73).

Nicholson (1984) highlights that beginning teachers will be influenced not just by their successes and failures in the classroom, but how these experiences are mediated by different kinds of feedback. Again David commented:

*'Erm [long pause] I didn't say it on the previous one but I guess this is probably the most important it's just that the way that the [students] have reacted to me over the last year and a half that has changed as well' (David, A50).*

*'Yeah, absolutely over the year as I have grown in confidence as I have gained subject knowledge experience erm [pause] and I've been able to be myself more with the group erm [pause] I think that that's a natural reaction over the first year of teaching but it is also erm [pause] a consequences to how they have reacted to me in terms of they've reacted positively as I feel like I've been improving which really enforces your belief that you are improving' (David, A52).*

Sarah also indicated that student feedback was important:

*'The student feedback [on the feedback forms] I find quite instrumental in changing how I behave because whilst you are not there to be their friend, the fact that if they give you good feedback it is because they genuinely enjoy the lessons and felt included and yeah and learnt something from it ...' (Sarah, A74).*

This might indicate that, for the purposes of this research, students should also be considered an active part of the community of practice. Indeed, the participants' narratives were often at their most emotional and animated when describing student feedback.

Whether as part of formal assessments or informal observations, the participants appeared to take feedback without question and acted on it readily. This may support the claim that it is the validation or invalidation of practice that facilitates learning and changes in behaviour. Support for learning in the form of feedback and guidance has long been recognised as an important factor in effective learning (Ashton, 2004). It would appear from the narratives that the quality and availability of this feedback varied across the organisation and was dependent in many cases on the skills, motivation and accessibility of colleagues and managers. There was also evidence of how difficult it was on occasions for the participants to hear the feedback they received:

*'I think I'm going to, I haven't to yet, but I think I am going to have to learn to deal with people criticising my teaching and me and not have that eat me up from the inside out' (Sarah, A16).*

*'...I think I am going to have to be a little bit less naive in the classroom...' (Sarah, A17).*

## 10.5 Changes in Beliefs

Tooth (1996) suggests that professional education and training only influences peripheral constructs and that profession related constructs are subsumed within a separate system. This is in contrast to Winter et al (1987) who found that the approach professionals take in their practice may reflect their more general attitudes to life and are therefore more resistant to change. Richardson (2003) found that many student teachers did not change their beliefs and assumptions during the course of their professional education, whilst some appeared to change behaviours without appearing to change beliefs. This research also found that some participants' narratives appeared to point to a change in beliefs without being able to offer any illustrations of how this had impacted on their practice - that these apparent changes in beliefs may have been 'cover stories' has already been discussed.. Richardson (2003) offers two explanations for this; firstly that certain images of teaching are too powerful to change in the relatively short period of professional education, secondly that professional education programmes for teachers are not based on fieldwork which would create the cognitive and emotive dissonance required for a change in beliefs. That there was little evidence of significant changes in construing about teaching and learning, either in the Repertory Grid data or from the narratives is generally supported by the feelings of the participants.

*'I think I probably thought the same or similar. I think I can probably, although the tape might disagree, I think I can probably express it slightly clearer. I probably just listed stuff without really fully understanding it before, I do think I understand what I have said a bit more now than I did a year ago'* (David, A40).

*'I'm less nervous, but I think [long pause] I'm just as interested in helping people as I was I just know better ways in which to do it now, than I did last time...'* (Sarah, A62)

*'Erm, um what have I learnt? [long pause] I don't think I've learnt anything new, I've expanded on things I already knew, so the real nitty gritty of some different techniques erm [pause] some yeah techniques, resources those sort of things...'* (Garry, A80).

*'Erm [long pause] erm [mumbling] I think [long pause] [sigh] I think I've, I think when we look back over the old manuscripts I think we'll find that I feel that my perspectives haven't changed a great deal'* (Garry, A80a).

*'I think fundamentally it originates from my own experience as a learner, erm [pause] there is no change there at all, erm [pause] what's happened is whilst going through the PGCE process and being out there and teaching is, I've understood that, so I had opinions formed on observation with little understanding and now I have erm [pause] almost reassuringly I suppose to an extent erm [pause] either challenged or changed but for the most part hasn't*

*changed but have a greater better understood erm [pause] why I hold those opinions and why my perspectives are in that way' (Garry, A80b).*

It was interesting to note that, when challenged, the participants seemed relatively unconcerned that they were suggesting in their narratives they had not changed their thinking about teaching and learning nor had they learned very much that was 'new' during their professional education.

# 11 CONCLUSIONS

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## 11.1 Research conclusions

### 11.1.1 Research questions

In drawing conclusions from the research study, this chapter returns initially to the research questions asked in Chapter 4. Although Chapter 4 explained that in the early stages of the research it became apparent that influences on teacher construing extended far beyond the community of practice, it was decided to retain the research questions as it was determined that they still provided a useful framework for directing the research activity. The central research question therefore remained:

- How, and to what extent, do Communities of Practice influence the development of constructs in beginning teachers?

The research sub-questions, which went on to shape the approach and methods used were:

- 1 - What do beginning teachers believe influences the development of their constructs?
- 2 - How does the construing of beginning teachers change over a 12 – 18 month period of initial professional practice?
- 3 - To what extent do the construction systems of beginning teachers tend towards the construction system of the Community of Practice following a 12 – 18 month period of initial professional practice?
- 4 - How do beginning teachers view their identities, positions and trajectories within their Communities of Practice, and how does this view change over a 12 – 18 month period of initial professional practice?

The first part of this chapter will therefore highlight how the research findings have helped to answer these questions. The second part of the chapter will discuss the implications for practice, the research limitations and the lessons learned during the study.

### 11.1.2 Research sub-question 1

**What do beginning teachers believe influences the development of their constructs?**

The evidence provided by this research suggests that the participants understood their beliefs about teaching and learning to be influenced by a range of factors. Whilst it is difficult, and perhaps misleading, to place these influences in any order of importance, the participants' narratives would suggest that their personal biographies were particularly influential in the early stages of their professional education. Indeed, the images of teaching and learning that these beginning teachers brought to the classroom appeared to serve an important function by providing a stable view of pedagogy during the highly demanding and stressful period of early classroom practice. This stable view of pedagogy, which appeared so important for early classroom 'survival', seemed to be accompanied by a rather fixed and simplistic view of the role and identity of the teacher. However, these fixed images of the teacher's role also appeared to be a helpful anchor point in the participants' early practice.

The research was unable to establish whether it was the participants' view of pedagogy that influenced their images of teacher role and identity, or whether it was the teacher identity they chose to adopt that subsequently drove their initial pedagogical approach. A similar point was raised by Garry<sup>15</sup> (and by Richardson (2003)). Garry wondered whether beliefs guide action or whether action (particularly the results of action) guide beliefs. This research postulates that beliefs and reflection on the results of action interact such that what becomes dominant is the way in which the individual mediates these influences - a process which Richardson (2003) suggests can be 'narcissistic, idiosyncratic and simplistic' (p.5) - yet a process that is necessarily so, because of its personal and individualistic nature. This research would suggest therefore that the participants' images of teacher role, identity and pedagogy were equally mediated to form a unique and individual pedagogy and identity.

The research provided evidence that over the duration of the study the participants had not fully reconciled their changing classroom practice with new beliefs about teaching and learning, views of teacher roles and teacher identities, and this had resulted in a confused and often contradictory view of pedagogy.

Nevertheless, all five of the beginning teachers who participated in the study illustrated a range of influences which appeared to be more or less influential dependant on the nature of the participant or the stage of their professional education. The influences described by the participants in this study were:

- Their experiences of being a student.
- The influence of previous teachers.

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<sup>15</sup> Collaborate interpretive analysis interview conducted 19 Sep 11.



- The influence of their subject specialism.
- Their experiences of teaching practice.
- Receiving feedback.
- The influence of the community of practice (including mentors and role models).
- The influence of reflection.
- The influence of their professional training.

The research also suggested therefore that whilst these influences held different, and often changing levels of importance and relevance for the participants, it was the combination, or mediation of these influences, rather than a single influence, that was more likely to bring about a change in construing or in practice and this was highlighted by several of the research participants.

*'Yeah, I mean they are absolutely complementary because you try and apply theory and then kind of get some feedback and then you interpret the feedback in terms of how well you managed to apply the theory erm [pause] and that's my own reflection that happens to kind of link the two in terms of one individual piece of work or one individual thing that's had an influence I think that whether it was probably the eureka moment was this one essay on curriculum design where I kind of when [sharp intake of breath] I kind of realised, almost put everything together, and kind of link it with the feedback I got from my own observations as well' (David, A62).*

*'It's through observation here, feedback from other observations of my practice and you know those are the two main things obviously the essays that I write for the PGCE ask us when we are reflecting on other people's practice is to observe for specific things and that was one of the things that I was specifically looking at that had been picked up in my practice before' (Paul, A71).*

*'Strongest influence err [pause] is undoubtedly the mentors, undoubtedly, then the peer group and then the PGCE' (Garry, A83).*

This study therefore concludes that the participants' beliefs about teaching and learning were subject to a range of influences which they appeared to value at different periods of their professional education. As previously discussed, in the early stages of practice the participants seemed to draw heavily on their previous experiences as a student, the pedagogy most widely employed by their subject specialism, and a range of teaching related

and non-teaching role models. As their professional experience increased, so did the influence of their community of practice, feedback and reflection, and most notably the theoretical aspects of their professional education.

### **11.1.3 Research sub-question 2**

#### **How does the construing of beginning teachers change over a 12 – 18 month period of initial professional practice?**

The research found both continuity and change in the construing of the research participants. Whilst the participants supplied different constructs during the two Repertory Grid interviews there was a consistency in their subsequent categorisation of these with the majority of the participant's constructs centred on teacher qualities and teacher attitudes. For some, teacher knowledge or skills appeared important but at no point did any of the participants rate it higher than teacher attitudes or qualities.

Despite the participants suggesting that they had not undergone significant changes in their construing about teaching and learning there was some evidence of change within their narratives. As previously discussed, there was evidence that the participants were at least experimenting with different pedagogical ideas and approach narratives. However, whilst there may have been changes in their narratives over time, there was little evidence found in this research of significant changes in either practice or construing. Most of the participants described how their practice might change in the future, rather than illustrating how their practice had already changed. For example David commented:

*'...and yeah I have taken his ideas and I am going to use them next week, I haven't actually done it yet but I will do'* (David, Stanza 249).

There was also little evidence of changes in construing. Although different constructs led to different construct themes, these tended to corroborate the participant's main ideas about teaching and learning and mirrored the threads that ran through both the initial and subsequent interviews. Again, there was little evidence in the Repertory Grid data to suggest significant shifts in construing. Indeed there was evidence that for some of the participants the period of professional practice had served to tighten their construing.

The Repertory Grid data did however provide evidence of a change in the way that the participants construed themselves and others during the research period. The data showed that the participants tended to construe the elements on a positive/negative continuum. The elements MY FUTURE SELF (positive) and THE TEACHER I WOULD FEAR TO BE (negative) provided a useful reference point for this categorisation. Whilst this remained a

very individual process there appeared to be several areas where the construing of the participants was similar and changed during the research.

The participants tended to locate themselves in a central cluster which included elements such as MY PREVIOUS TEACHERS, MY COLLEAGUES, THE COMMUNITY OF PRACTICE, MY PEER GROUP and on occasion MY MENTOR. Generally, the participants most closely associated themselves with MY PEER GROUP. Whilst the relative positions of these elements tended to be representative of the biography of the individual participant there was a general trend to view MYSELF and MY PEER GROUP to be more positively associated whilst the COMMUNITY OF PRACTICE tended to become more negatively associated. Interestingly, the relative position of elements such as MY COLLEAGUES or MY MENTOR appeared to reflect the relationships described in the narratives and this demonstrated the importance of the participant's context in their construing of relationships and the position of themselves within the positive/negative continuum.

The study therefore concludes that there is little evidence to suggest that the participants' construing about teaching and learning changed significantly during the research period. However, there is some evidence to suggest a change in the way that the participants construe their context and their relative positions and relations within it.

#### **11.1.4 Research sub-question 3**

**To what extent do the construction systems of beginning teachers tend towards the construction system of the Community of Practice following a 12 – 18 month period of initial professional practice?**

There was very little evidence in the narratives to suggest that, within the community of practice described by the participants, they identified a single, wider 'family' (Procter, 1996) or 'corporate' (Balnaves et al, 2000) construct system as hypothesised in Chapter 3. There was certainly evidence in the narratives that the participants agreed and appeared to construe similarly to some colleagues, but not to others. According to Procter (1996) members of the community do not need to agree or construe in the same way, but rather all constructs tend to 'link systematically into a wider construct system' (p165). Procter (1996) suggests this construct system is progressively revised, refined and elaborated by the community producing a 'fund of knowledge' which is held in common (p168). There was no significant evidence to suggest that the participants were aware of any 'family' or 'corporate' fund of knowledge however, this might be because, as novices, this resource is inaccessible to them, or indeed, as Sarah illustrated, there are whole communities which could not be accessed (Sarah, A76,A77). An alternative and equally likely explanation might be that the

participants are influenced by this wider construct system at a sub-conscious level. Nevertheless, none of the narratives openly described ways of acting, doing or thinking that were common across the community.

In both the Repertory Grid interviews and in the narratives, the participants were highly critical of the community. Much of the focus sorting and hierarchical clustering analysis showed that whilst the participants related strongly to their peer groups and mentors, the community was often seen as a more negative influence and was associated with many of what the participants considered to be the less positive poles of their constructs. In the Trajectory Target exercise, whilst acknowledging that membership was important, retaining a level of independence from the community also was a key theme.

When asked directly in the interviews to comment on the extent to which their beliefs about teaching and learning mirrored those of the community, only Paul indicated some level of conformity:

*'Err ([pause] I think probably quite similarly I've kind of fallen into line possibly where I might have had different views a year or so ago' (Paul, A56).*

*'... it's getting there erm [pause] if we had more time for the CPD aspect of, sort of element, and also for reflection then I think I would continue that [background noise] one of the things that's the nature of the job is that we don't necessarily get the appropriate amount of time for that CPD and reflection' (Paul, A60).*

As discussed in Chapter 2, this might indicate that Paul was employing what Nicholson (1984) describes as an absorption strategy. The other participants were for more truculent in the defence of what they felt was their individualism. David for example commented:

*'I think the way people express this kind of thing often varies a lot and can vary a lot with what they actually really truly believe as well and a lot of the times people say things that are just repeating, erm [pause] I try and avoid doing that and so I try and actually formulate my own ideas as influenced by obviously everything that I hear err [pause] so I take it that my ideas are my own...' (David, Stanza 146-147).*

The study therefore concludes that whilst there is significant evidence that the participants' beliefs about teaching and learning were heavily influenced by community members (such as peers, colleagues and mentors) there was no evidence generated by this research that the construing of the participants was influenced by a wider 'family' or 'corporate' construct system.

#### **11.1.5 Research sub-question 4**

**How do beginning teachers view their identities, positions and trajectories within their Communities of Practice, and how does this view change over a 12 – 18 month period of initial professional practice?**

The participants appeared to enter their professional education with a fixed view of the role of the teacher and therefore the type of teaching identity they wished to adopt. This view of teaching role and identity was by no means typical, with the participants adopting identity narratives ranging from wanting to be a 'passionate lecturer' (Simon) to aiming to become a 'skilled helper' (Sarah). As previously discussed, the participants' narratives illustrate that these fixed images of role and identity are linked to individual biography and how the beginning teacher had used this biography to construe teaching and learning. Although some of the participants began to experiment with different narratives during the latter stages of the research, there was little evidence to suggest that their initial role and identity images had changed in any noticeable way during the research.

It was notable that the participants appeared keen to trade their identities as students and beginning teachers for the status of full participant. Indeed, within the narratives, whilst accepting novice status, the participants rarely positioned themselves as anything other than full and equal contributors to the activities of their departments and there was very little evidence of peripheral participation. As stated earlier, Ronfeldt & Grossman (2008) and Ibarra (1999) contend that, in many cases, and across professions, individuals in professional transition must convey a credible image some considerable time before they have fully internalised their professional identity if they are to operate in any believable sense in the workplace. This is, arguably, particularly true of the teaching profession where newcomers may have to act like teachers before they feel like teachers, and especially relevant to the participants in this study who were subject to a mode of teacher education in which, for the majority of time, the students are placed in practitioner roles.

The Trajectory Target exercise illustrated that all the participants viewed themselves as novices. In the first exercise for instance, most participants positioned themselves as far away as possible from what they viewed as the community of practice as a way of indicating their novice status. However, in the second exercise, those participants placed themselves noticeably closer to the centre indicating that they felt closer to, or had experienced a level of acceptance by, the community.

In the first Trajectory Target exercise the majority of participants appeared to show a simple inward-bound trajectory illustrating their wish to move closer to, or be accepted by, the

community. Nevertheless, the participants all indicated the importance of retaining some measure of independence or individuality - this was an indication of how important it was to the participants to remain 'themselves'. In the second exercise, the majority of participants maintained their inward-bound trajectories but illustrated them with greater levels of complexity. These trajectories now traced more complex paths or split into multiple trajectory options and timelines - some of which were seen as positive and others as negative. This illustrated that the participants had a more pragmatic understanding of their trajectory options by Interview 2.

The level of control the participants felt they exerted over their trajectories also changed between interviews. In the first exercise the participants felt in control of their trajectory however, by the second exercise, this confidence had reduced with such factors as 'fate' (Paul) or the 'course through life' (Simon) being cited as reasons for this loss of control. It appeared therefore that as the participants' trajectories became more complex, and arguably more realistic, so their perceived ability to control their trajectories reduced.

This study therefore concludes that there was evidence of notable changes in the way the participants viewed their positions and trajectories within their communities of practice with most participants viewing their position as one which was moving towards acceptance into the community. The participants gained a more complex, and arguably more accurate, understanding of their possible trajectories but indicated a reduction in the level of control they felt they exerted on these potential pathways. There was less evidence to suggest that there was a significant change in the participants' teaching identities over the course of the study. The research found that the participants struggled throughout the study to fully reconcile different images of teacher identity, teacher role and pedagogy and, despite experimenting with different narratives, they were unable to provide illustrations of significant changes to their initial identities.

#### **11.1.6 Main research question**

**How, and to what extent, do Communities of Practice influence the development of constructs in beginning teachers?**

There is a notable paradox in the research findings and the conclusions drawn in this chapter. This chapter appears to maintain that whilst there is little evidence to suggest significant changes in the participants' construing about teaching and learning, teacher identity and teacher role, there is evidence that a range of influences acted upon the participants during the research period. Indeed, this research has suggested for example that the influence of peers and colleagues increased during the research but that there was

little evidence of the type of 'family' or 'corporate' construing, that might be associated with a community of practice, exerting any notable influence on the participants.

How is it possible then that this research can find simultaneously continuity in construing but change in the narratives of the participants? Whilst there is not sufficient data to comment conclusively, several interpretations are offered for consideration:

- 1 - There is only a partial link between the participants' narratives about teaching and learning (or about their practice), and their construing. Therefore whilst the participants might illustrate some form of influence on their thinking or practice, in reality this does not equate to a change in construing.
- 2 - Whilst the participants' constructs about teaching and learning were influenced by practice, feedback, reflection, observation of colleagues, mentoring, role modelling, and professional education, this study was not of sufficient duration to capture significant changes in their construing. Therefore whilst the participants' construing may have in fact been influenced, this change process could not be identified in the 12-18 month period allocated for the research.
- 3 - Influences on the participants' construing about teaching and learning such as practice, feedback, reflection, observation of colleagues, mentoring, role modelling, and professional education, were not sufficiently strong and/or appropriately timed to have a significant influence on their construing. Therefore the participants identified potential influences but were not psychologically open to a change in their construing.

This study therefore concludes that Communities of Practice might be considered an umbrella term for a range of practice-based influences that act upon beginning teachers. Whilst there is little evidence of 'community influence' there is evidence that people and activity located with communities of practice do influence practice, if not construing. However, the research findings suggest that the community-based influences are located within wider, external influences that come from the individual biography and, latterly, from the beginning teacher's professional education.

## **11.2 Implications for practice**

The case study narratives that underpin this research have shown that not only do beginning teachers enter their professional education with significant biographies, but that the images of teaching, learning and identity drawn from these biographies prove remarkably stable during the early periods of professional practice. It has been argued that this stability in

images of teacher identity, role and pedagogy offered the participants a valuable anchor point during the early classroom encounters when 'survival' was the aim of each period of classroom practice.

Teacher educators must acknowledge not just the biographies that all beginning teachers will bring to their professional education, but also the wide range of influences that may act upon the beginning teacher - many of which are outside of the control of a programme of teacher education. More importantly perhaps, this research has suggested that these influences are not uniform but act upon beginning teachers in a unique fashion that is driven by the way they are mediated by the individual's current beliefs. Moreover, this research suggests that the relative importance of these influences changes during the course of teacher education programme.

It may appear that research findings which highlight the highly personal nature of the teacher education process call into question the relevance of a designed curriculum for teacher education - this is not the case. Indeed, it is argued here that teacher educators and teacher mentors have vital role to play in helping beginning teachers to mediate the range of influences that act upon them during their education programme. However, taking a constructivist stance, the beginning teacher must remain at the centre of this process and guide this mediation because it is the individual's personal construct system that remains at the heart of this professional development and learning process.

Using Kelly's (1955) metaphor of 'man-the-scientist [sic]' (p4) to gain a better understanding of the research findings, it is suggested that beginning teachers need access to practice in order to effectively test and experiment with the strong images of pedagogy and a teaching identity gained from their 'apprenticeship' of previous educational experiences as well as from influential 'others' such as previous teachers, family and roles models. This research contends that it is practice, feedback and reflection that acts as the catalyst for change and all other influences are mediated through this triumvirate of activity. This view is supported by Rogers (1967) who contends that '...significant learning occurs more readily in relation to situations perceived as problems ...we permit the student at any level to be in contact with the relevant problems of his existence' (p.286).

Using Kelly's metaphor once more, it might be suggested that without experiments the scientist is unlikely to invalidate any standing hypotheses and therefore see the requirement to search for replacements. This supported by Posner et al (1982) who suggest that individuals must be dissatisfied with existing beliefs and that new beliefs must be intelligible, plausible, and must solve the issues at hand, before they will be accommodated. Equally then, the beginning teacher, without access to practice (or practitioners), is unlikely to



develop the need for replacement images of pedagogy or teacher identity. As Chapter 2 highlighted, this calls for an inductive rather than reactive approach to professional education (Robson, 1998a)

In light of these research findings, my development of a practice model for teacher educators has drawn on recent literature about school-based teacher training (White & Jarvis, 2013), specifically the work of Graham et al (2012) and Graham (2013). The development by Graham et al (2012) of the 3D model of critical reflection (Discover - Deepen - Do) was 'designed to drive change in teaching through analysis of critical incidents or critical moments' (p.47). This model was also designed to support the learning of Newly Qualified Teachers (NQT) in their Continuing Professional Development (CPD) as well as providing a useful framework against which to structure learning 'professional learning conversations' (2013, p.33). The concepts behind Graham et al's (2012) '3D' pedagogical approach to NQT learning has been utilised, but further developed and reordered as a result of the research findings to provide a model which describes more adequately a pedagogical approach to initial teacher education taking into account psychological aspects such as beliefs and influences.

My subsequent '4D' model, developed as a direct result of the findings from this research study, suggests that teacher education programmes should be developed to include 4 dimensions or phases of learning:

- **Do** - The 'Do' dimension represents periods of practice in a range of real classroom settings and with real students. This provides the beginning teacher the opportunity to experiment with long-standing or developing images of pedagogy and identity.
- **Discover** - The 'Discover' dimension is concerned primarily with feedback and reflection on action. In this dimension the beginning teacher is encouraged to conduct a critical analysis of their classroom successes and failures.
- **Diversify** - In the 'Diversify' dimension, the beginning teacher is introduced to other teaching strategies, pedagogical approaches and teacher identities. This might be through direct observation of peers and colleagues or through professional learning conversation with teacher educators, mentors or the wider community of practice.

- **Deepen** - During the 'Deepen' dimension, the beginning teacher builds an understanding of the theories that underpin their images of the student, pedagogy, teacher identity and role.

As Figure 28 illustrates, these dimensions would not be applied to the design of teacher education programmes in a linear fashion but rather work together to form two main stands of activity.

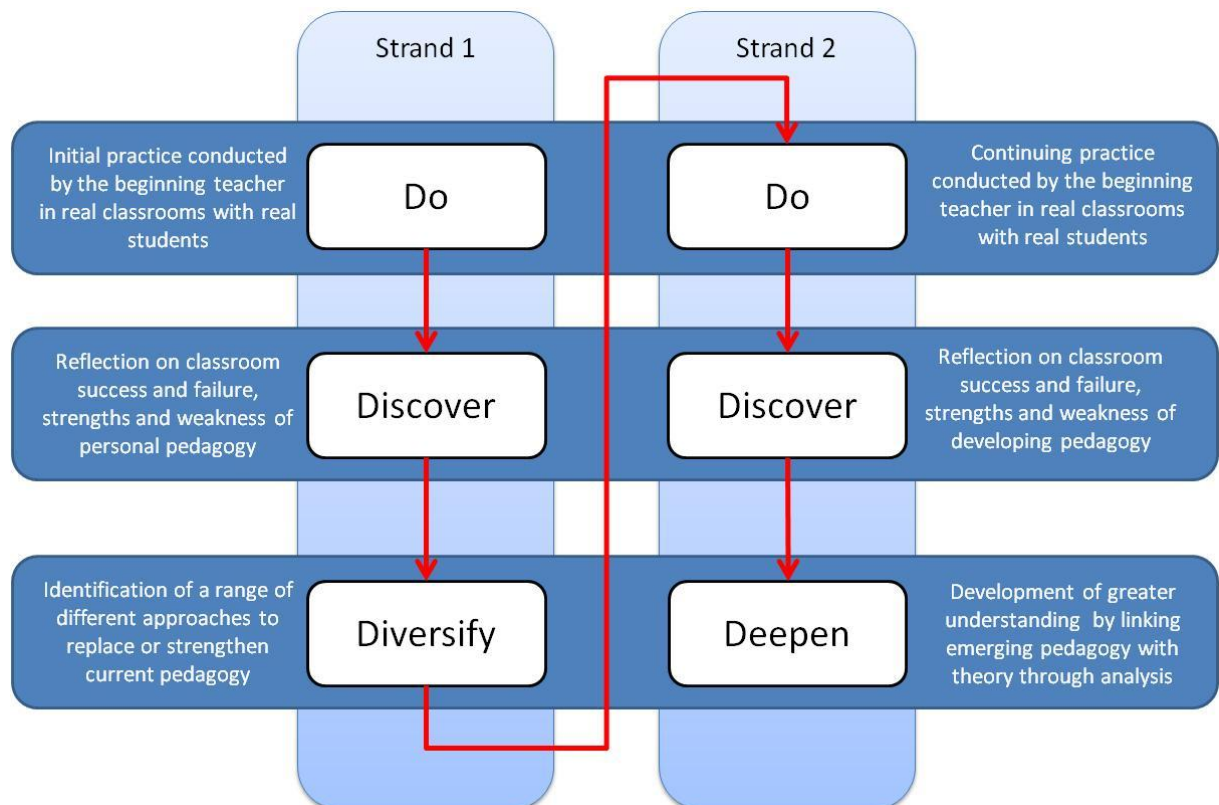


Figure 28 - The 4D Pedagogical Approach to Initial Teacher Education

- **Strand 1** - The aim of the first strand of teacher education activity is to provide the opportunity to experiment with and test those images of students, pedagogy, teacher identity and role that underpin the biography of the beginning teacher. This is more than a simple 'in at the deep end approach'; it is a careful and considered exploration and analysis of the beginning teacher's assumptions and approach - but with the aim of increasing the chances of classroom 'survival'. The beginning teacher discovers through practice, feedback and reflection the limitations of their assumptions and approach and is offered a range of alternative images and approaches to experiment with in the second strand of activity. Strand 1 therefore provides, via the direct challenge to personal beliefs, what is described by Ibarra (1999) as 'emotive dissonance' (p.799) by Kagen (1992) as 'cognitive dissonance' (p.147) or, in Kelly's (1955) terms, the ANXIETY<sup>16</sup> required to seek alternative constructions.
- **Strand 2** - The aim of the second strand is to test and experiment with these alternative constructions and images of students, pedagogy, teacher identity and role. Again, this is a careful and considered analysis of the beginning teacher's developing classroom approach and through practice, feedback and reflection these alternative constructions are adopted or discarded as required. Towards the end of the second strand, the beginning teacher starts to develop the conceptual and theoretical underpinning that supports both their developing pedagogy and their emerging teacher identity.

This 4D model developed from the research findings therefore builds what might be described as a Creativity Cycle (Bannister & Fransella, 1986; Kelly, 1955, 1969a; Walker & Winter, 2007) for teacher education. That is, the overall aim of strand 1 is to loosen the individual's construing to allow the consideration of alternative constructs of pedagogy and identity. The overall aim of strand 2 is to tighten the individual's construing through feedback and reflection and the validation of classroom practice.

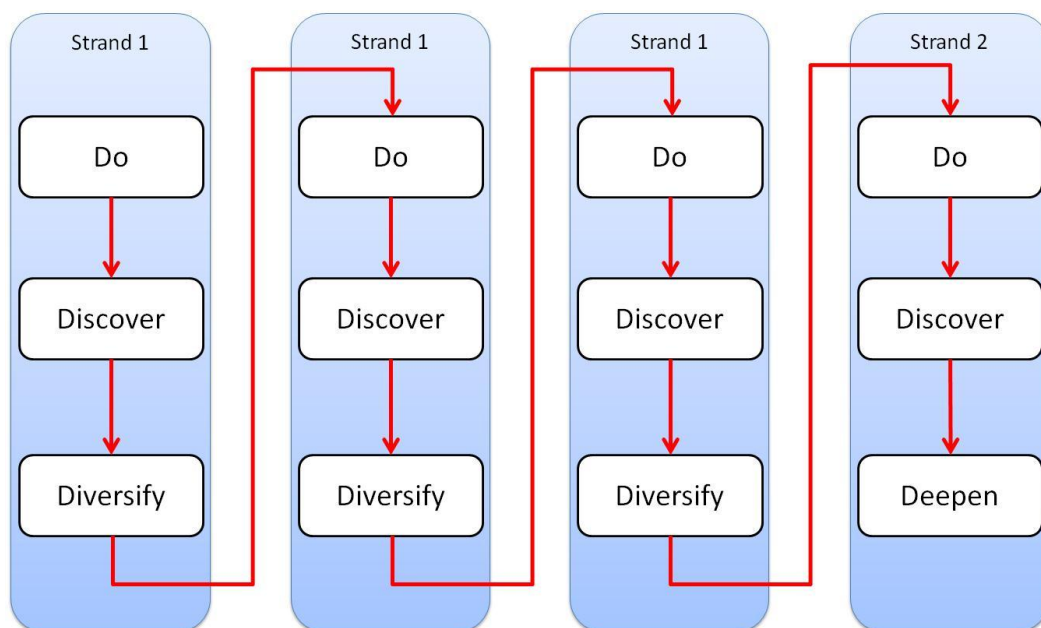
The 4D model described here does not aim to replace the pedagogical approaches and tools (such as critical reflection, action research, portfolios, biographies and case studies) discussed in Chapter 1. In fact, it is almost certain that a teacher education programme based on the 4D model would utilise some or all of these approaches and tools. Rather, the 4D model should be considered a pedagogical framework within which to employ these approaches and tools to greatest effect. For example, critical reflection utilising portfolios and biographies would be a key approaches during the 'Do' and 'Discover' dimensions,

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<sup>16</sup> See technical glossary (p.236) for a definition of this term

whereas the use of case studies and action research may be more appropriate during the 'Diversify' and 'Deepen' dimensions. However, as Chapter 1 highlights, all these pedagogies should be applied with an understanding of how they support the learning and development of the individual student.

Whilst this 4D model offers a pedagogical framework for developing teacher education programmes, it is difficult to assess and comment on the relative durations of the strands. The research findings certainly suggest it is likely that beginning teachers will differ in their management of the activities within the strands. There was evidence in the narratives for instance that some participants' construct systems were more permeable than others and that those who appeared to have very fixed images and biographies displayed a greater level of what Vygotsky (1978) describes as the problem of 'fossilised behaviour' (p.63). Whilst this was not necessarily manifested in automated or mechanised behaviour, there was evidence that some of the participants adopted particularly fixed and unquestioned images of pedagogy. This might lead to strand 1 being a longer and more complex process for these beginning teachers. It is likely therefore that the strands of the 4D model would be used iteratively and in combination to form a programme that is more bespoke and reactive to the needs to the beginning teacher. Figure 29, for example, illustrates a teacher education programme that is designed on successive iterations of strand 1 activity that slowly loosen and expand the beginning teacher's construing. Strand 2 only commences at the point where the beginning teacher is comfortable enough with their classroom practice to have the intellectual space to deepen their understanding of their developing pedagogy and emerging identity.



**Figure 29 - Example of a 4D Teacher Education Programme Design**

This means that the 4D model is not, nor does it aim to be, an experiential learning cycle in the manner of those offered by Kolb et al (1974) – although the findings of this research support Kolb's view that experience is a strong source of learning (Kolb, 1984). Rather, the 4D model is a pedagogical approach to structuring teacher education programmes and utilising the types of pedagogical tools described in Chapter 1 in the most effective way possible.

Unlike cyclic models of learning such as Kolb's, which by their very nature do not feature entry and exit points, the key characteristic of the 4D model is that it contends that teacher education programmes **MUST** start with practice. Indeed, the discussion of teacher education pedagogy in Chapter 1 clearly highlighted that the direction of teacher education is moving away from 'traditional', theory-to-practice pedagogies which, using Kolb's terminology, would customarily commence with the abstract conceptualisation – most likely through the study of educational theory. Not only did this research provide evidence to suggest that this is not the most effective way to structure a teacher education programme, there was also evidence of the 'feed-forward' problem (Korthagen & Kessels, 1999) described in Chapter 1 in which the lack of classroom experience means that student teachers are often not aware of the relevance or usefulness of the ideas that are presented and therefore initially resist them.

The 4D model therefore fills an important gap in teacher education pedagogy by providing an empirically-based supporting framework through which other established pedagogical approaches and tools can be more effectively applied. This research argues that because beginning teachers (unlike many other professionals) appear to enter their education programmes with strong images of teaching and learning, programmes based on 'traditional' learning cycles may have less utility than previously thought.

The role of teacher educators, described by Murray & Male (2005) as second order practitioners, and workplace mentors remain a key element of the 4D approach to teacher education. Whilst the basis for this model is firmly located in practice and specifically in classroom activity, it is the teacher educator and workplace mentor that bring life to the activities that comprise the 'Discover', 'Diversify' and 'Deepen' dimensions of the programme.

The research findings suggest for instance that to 'Discover', time and space for feedback and reflection must be made. Despite the participants in this research being highly critical of formalised reflection, this research maintains that educators and mentors have a key role in helping the beginning teachers 'push back limitations' (Pye, 1994, p.168) and gain the most value from this activity. Feedback and reflective processes however might be structured more as professional leaning conversations (Graham, 2013) rather than the type of formal

written essays which attracted the criticism of the research participants. Importantly, professional learning conversations also place the educator and mentor in a position to support the beginning teacher with the THREAT and ANXIETY<sup>17</sup> (Kelly, 1955) that may accompany any feedback or reflective processes that indicate the need for a revision of the images that underpin the individual's construct system. Equally, educators and mentors are in a position to challenge the HOSTILITY<sup>18</sup> (Kelly, 1955) that may be associated with particularly fixed or fossilised images.

During the 'Diversify' dimension, educators and mentors have a role in familiarising the beginning teacher with wider frames of practice including alternative images, approaches and identities. Again, this is an activity that is focused on the needs of the individual and may be achieved through a variety of methods from professional learning conversations to observation of practice, from team teaching activities to the use of case studies. The research highlighted that whilst the participants found the chance to observe colleagues valuable, many found it difficult to find the opportunity within their full teaching schedule. It is important therefore the teacher educators and mentors work to retain the 'novice' and 'student' aspects of the beginning teacher's identity and that during the strand 1 activities the beginning teachers remain, as Lave & Wenger (1991) suggest, legitimately peripheral to full departmental activity.

In the 'Deepen' dimension, the traditional role of the teacher educator and higher education institution (HEI) become more pronounced. In this dimension, the teacher educator would have the lead role in supporting the beginning teacher to develop a theoretical and conceptual underpinning for their developing pedagogical approach and emerging identity. Additionally, they would encourage the use of tools such as those used for analysis and practice-based enquiry (Roberts & Taylor, 2013) that, as an emerging reflective practitioner, the beginning teacher may rely on in the future to analyse and develop their own practice.

This 4D pedagogical approach to teacher education therefore suggests that workplace practice remains at the centre of teacher education but that the contribution of professionals located in both the immediate community of practice and the HEI ensures that beginning teachers are guided and supported through the natural, creativity cycle of initial teacher education.

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<sup>17</sup> See technical glossary (p.236) for full definitions of these terms

<sup>18</sup> See technical glossary (p.236) for a definition of this term

## **11.3 Research limitations**

The limitations of the case study approach and the methods utilised in this research have been discussed in detail in Chapter 4. The most obvious limitation of this research lies in the smaller number of participants and the highly specific context in which they were employed. Whilst these in-depth case studies have provided rich and authentic data, it is accepted that generalisation from this type of study can be problematic. As stated on Chapter 4 however, this research makes no claim to offer generalisation on the basis that the participants of this study are representative of the 'population' of beginning teachers - the type of statistical or empirical generalisation claims made by more positivistic studies. Rather, this study claims what Sim (1998) describes as 'theoretical generalisation' in which the research findings offer insights which '...possess a sufficient degree of generality or universality to allow their projection to other contexts or situations which are comparable to that of the original study' (p.350). Sim (1998) goes on to suggest that, in developing theoretical generalisation, the researcher recognises parallels at the theoretical and conceptual levels between the case or situation being studied and other cases and situations - the research contends that this is only part of developing theoretical generalisation. It is, arguably, more important that the reader of the research recognises the theoretical and conceptual parallels for themselves and either agree with the research conclusions or, because of their own unique biography, draw their own conclusions. Either way, as research conducted with constructivist and interpretive underpinnings, the findings have been presented and structured in such a way as to allow the reader to access as much of the data as is practical and allow them to follow the subsequent development of the themes into theoretical and conceptual ideas that support the conclusions drawn. In short, this research is only able to make a recommendation or contribution to practice on the basis that teacher educators, workplace mentors, and other interested professionals are able to recognise the research themes and to apply them to their own settings and contexts.

## **11.4 Lessons learned**

### **11.4.1 Limitations, changes and improvements in approach**

**Research duration.** As the conclusion states, the 12-18 month period of data collection may not have been of sufficient duration to detect changes in the participants' construing. Had the time between data collection activities been longer, or indeed more data collection activities that extended beyond initial 18 month period been planned, there may have been more evidence of changes in construing.

**Field notes.** Whilst the research made use of basic field notes and journal entries it was assessed that these should have been more widely and systematically used as a source of data in order to more effectively capture that richness of the non-verbal communication that was part of each interview. The case study narratives, which retained the rhetorical devices and the verbal patterns of the participant's speech, highlight the additional depth and authenticity that this brings to the data. This authenticity could have been further augmented with the more systematic use of comments and observations from field notes and journals.

**Repertory Grid interviews.** The successful conduct of the Repertory Grid interview requires a technique which is, undoubtedly, mastered though practise. Whilst the conduct of these interviews appeared to improve throughout the study it was felt during several of the interviews that the data collection was limited by the ability of the researcher. For instance, in the second interview, Paul was only able to provide six constructs. A more experienced practitioner may have been able to more successfully employ laddering or pyramiding techniques to elicit a greater range of constructs from Paul. A pilot study had been conducted using Repertory Grid technique but this concentrated on technical aspects such as confirming grid design. A greater number of pilot interviews, particularly working with participant to elicit constructs, may have improved the data collected during the research.

**Data transcription.** Chapter 4 highlighted that the data transcription process used stanzas and strophes (Gee, 1991) to identify the 'narrative episodes' Arvay (2002, p.168) and story fragments. Whilst this was initially helpful in drawing attention to the participants' illustrative narratives and to shape the subsequent collaborative narrative interview, this approach provided little additional benefits and did not improve the research data. The use of stanza did however lead to an over-complex transcript referencing system which, whilst explained in Chapter 4, can be seen in the transcript notation as cumbersome and unnecessary.

#### **11.4.2 Implications of approach selection**

**Research demands.** I maintain that the collaborative narrative approach, chosen as the framework to underpin the case study methodology, was appropriate for the nature of the research. However, the research design failed to fully account for the implications of choosing this approach. As the research progressed, it became apparent that the collaborative narrative approach represented a significant commitment for both researcher and participants. In particular it made sizeable demands on the participants who were concurrently struggling with the demands of becoming teaching practitioners. Whilst the researcher made efforts to reduce this burden, it was clear that the participants found it difficult to find time to engage meaningfully with the research. It should be noted therefore



that the collaborative narrative approach is one that makes considerable demands on both researcher and participant.

**Impact on participants.** An unexpected but important outcome of using the collaborative narrative approach for this type of research was the impact that it appeared to have on the research participants. The collaborative nature of the approach, particularly the detailed analysis that the participants conducted on their own narratives, resulted in participants engaging far more reflexively with their own biographies and professional education programme than would have usually been the case. Indeed, whilst this was not reflected in the narratives, comments received by the participants on completion of the research indicated that they had valued this reflexive opportunity. It could be argued therefore that the research process itself may have been an influence on the construing of the participants. Whilst there is no evidence of this within the research findings to support this, it is nevertheless a consideration for this and other research projects utilising the collaborative narrative approach.

## **11.5 Areas for further research**

There are several areas where the research methodology and findings could be built upon to improve data collection or develop insight into specific themes:

- 1 - The research methodology could be repeated but the duration of the research study extended beyond the 18 month period allocated in this research design.
- 2 - The research methodology could be utilised to examine more closely the development of constructs in beginning teachers in aspects of education other than PCET - this might include primary or secondary teaching.
- 3 - The research methodology could be utilised to examine more closely the development of constructs in beginning practitioners in other professional groups - this might include for instance medical professionals or police officers.
- 4 - The 4D model could be utilised as a pedagogical approach to design, deliver and conduct further research on a teacher education programme for initial teacher education of any type.

## **11.6 Summary - contribution to practice**

I believe that the conduct and findings of this research has made a number of contributions to the practice of both teacher education and educational research. The '4-Dimensional' model for initial teacher education offered at Para 11.2 contributes to the

current pedagogical debate on the structure of teacher education that was outlined in Chapter 1. Not only does the 4D model offer pedagogical outline for the design of teacher education programmes, but I believe it presents a useful perspective on the relationship between the school and the HEI which was described by Read (2013) as being '...in a state of flux' (p.ix) . The 4D model offers a view on the roles and responsibilities that may be adopted by school-based and university-based practitioners to ensure '...that the wealth of practice experience, the criticality and rigour of academic study [and the opportunity to have a vision for education which exceeds the immediate context] are preserved' (Read, 2013, p.ix).

This research also offers, in the spirit of 'Snake Interviews' (Cabaroglu & Denicolo, 2008), Trajectory Targets as a research instrument for eliciting constructs about position and trajectory. The use of the Trajectory Target in this research has shown that they are not only a useful tool for eliciting constructs and generating research narratives but can also, when administered over a period of time, act as a useful source of graphical data which can show relative changes in positioning and trajectory as well as changing perspectives and aspirations.

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## GLOSSARY (TECHNICAL)

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Term	Definition
Anxiety	Anxiety is the awareness that the events which one is confronted lie mostly outside of the range of convenience of one's construct system.
Creativity Cycle	The creativity cycle is one which starts with loosened construction and terminates with tightened and validation construction.
Elements	Things or events which are abstracted by a person's use of a construct are called elements.
Emergent (pole)	The emergent pole of a construct is that one which embraces most of the immediately perceived context.
Fear	Fear is the awareness of an imminent incidental change in one's core structures.
Guilt	Guilt is the awareness of dislodgement of the self from one's core role structure.
Hostility	Hostility is the continued effort to extort validation evidence in favour of a type of social prediction which has already been recognised as a failure.
Implicit (pole)	The implicit pole of the construct is that one which embraces contrasting context. It contrasts with the emergent pole.
Permeability	A construct is permeable if it admits newly perceived elements to its context. It is impermeable if it rejects elements on the basis of their newness.
Pole	Each construct discriminates between two poles, one at each end of its dichotomy. The elements abstracted are like each other at each pole with respect to the construct and unlike the elements at the other pole.
Superordinate (construct)	A superordinate construct is one which includes another as one of the elements in its context.
Threat	Threat is the awareness of an imminent comprehensive change in one's core constructs.
Range of Convenience	A construct's range of convenience comprises all those things to which the user would find its application useful.

## GLOSSARY (GENERAL TERMS)

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<b>Term/Abbreviation</b>	<b>Description</b>
AES	Army Educational Services.
AGC	Adjutant General's Corps.
Alpha Course	1 week residential course at the beginning of PGCE year 2.
Bravo Course	1 week residential course at the end of PGCE year 2.
BT Course	Branch Training course - 9 week residential course that initiates the PGCE course.
CELTA	Certificate in English Language Teaching to Adults.
CertEd	Certificate in Education.
CLM	Command Leadership and Management. A curriculum delivered at various levels to Army Soldiers.
CPD	Continual Professional Development.
CTLLS	Certificate in Teaching in the Lifelong learning Sector.
Dari	Language (Training).
DTLLS	Diploma in Teaching in the Lifelong learning Sector.
ETS	Educational and Training Services (Branch).
GTP	Graduate Teacher Programme.
HEI	Higher Education Institution.
ISPEC	Instructional Specification.
ITT	Initial Teacher Training.
PCA	Principal Component Analysis.
PCET	Post Compulsory Education and Training.
PGCE	Post Graduate Certificate in Education.
QTLS	Qualified Teacher Learning and Skills.
QTS	Qualified Teacher Status.
SCITT	School-centred Initial Teacher Training.

# ANNEX A - SIMON: CLUSTER ANALYSIS & PCA

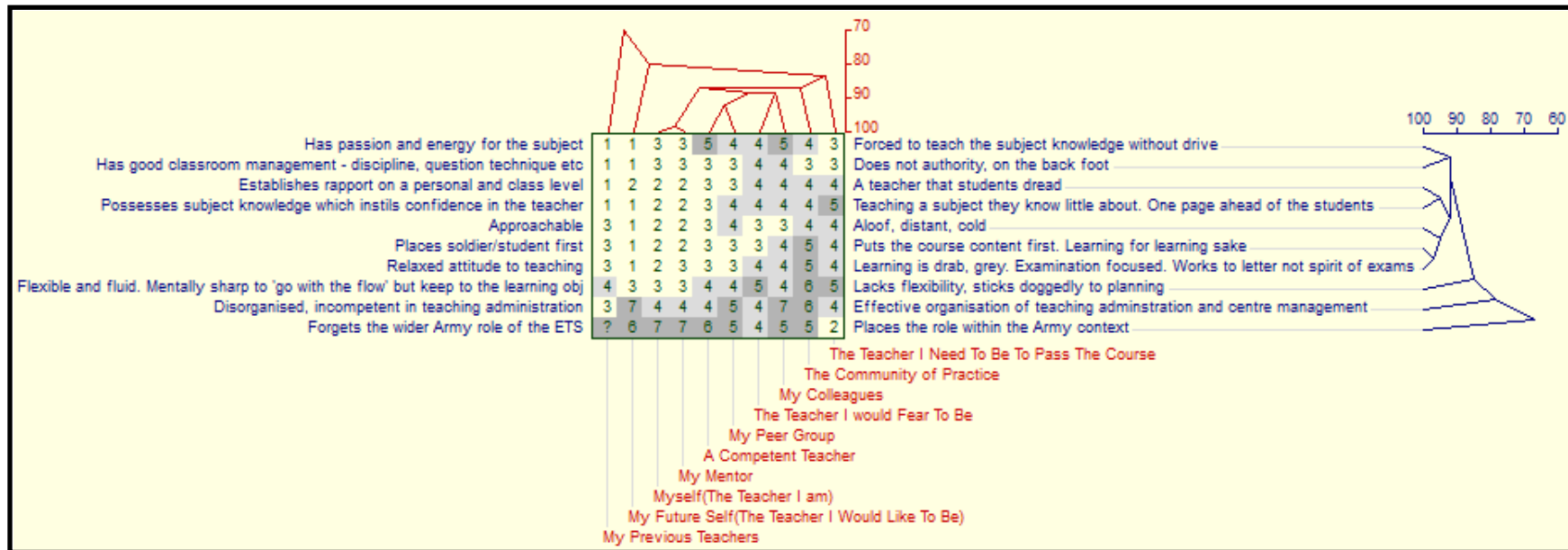


Figure 30 - Focus Sorting and Hierarchical Clustering Analysis Graph - Simon (Grid 1)



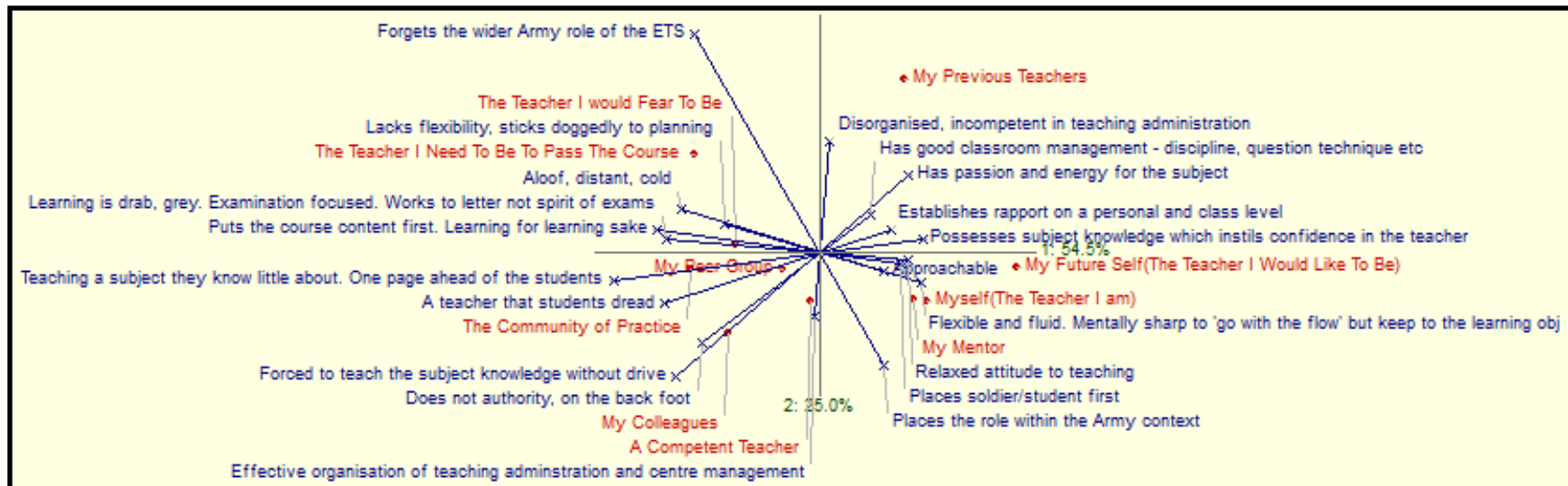


Figure 31 - PCA Graph - Simon (Grid 1)

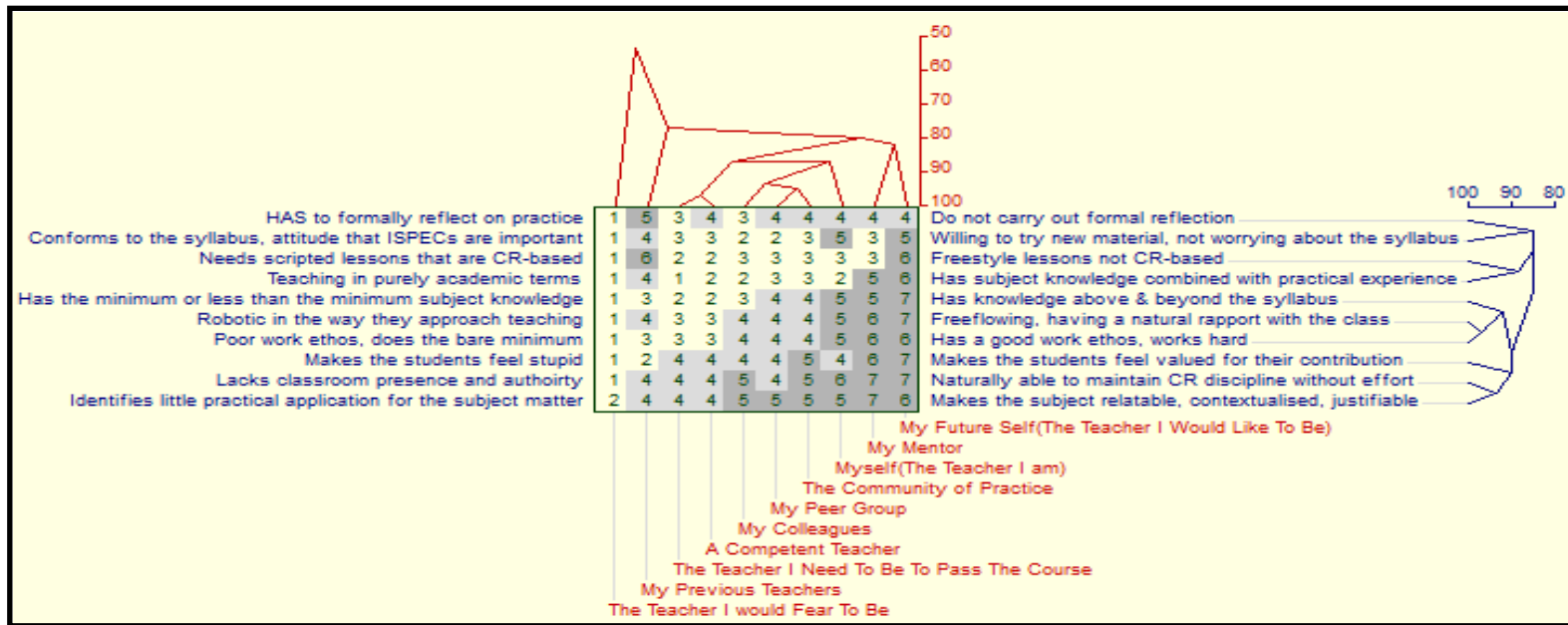


Figure 32 - Focus Sorting and Hierarchical Clustering Analysis Graph - Simon (Grid 2)

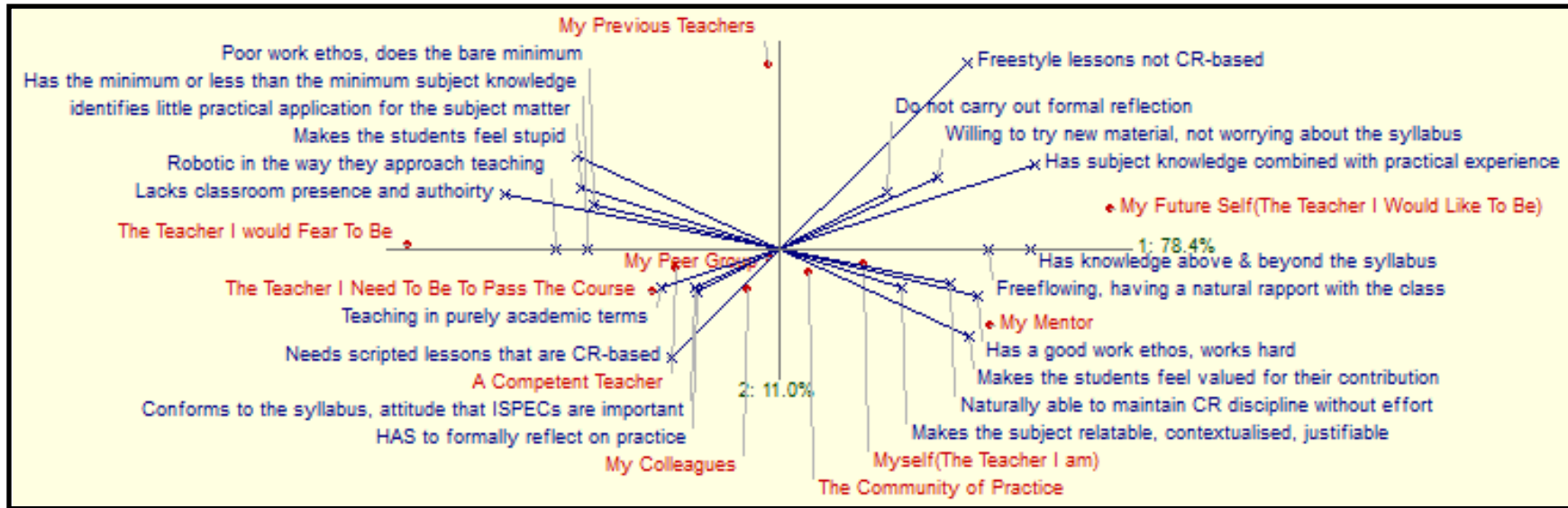


Figure 33 - PCA Graph - Simon (Grid 2)

# ANNEX B - SARAH: CLUSTER ANALYSIS & PCA

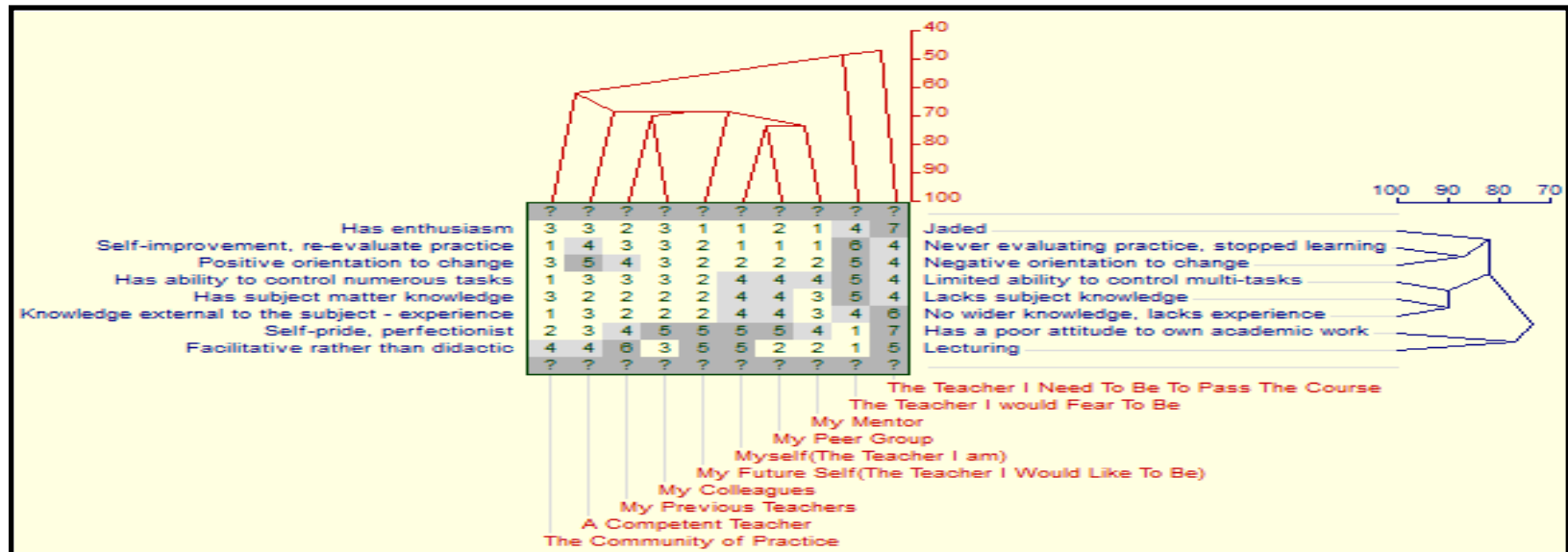


Figure 34 - Focus Sorting and Hierarchical Clustering Analysis Graph - Sarah (Grid 1)

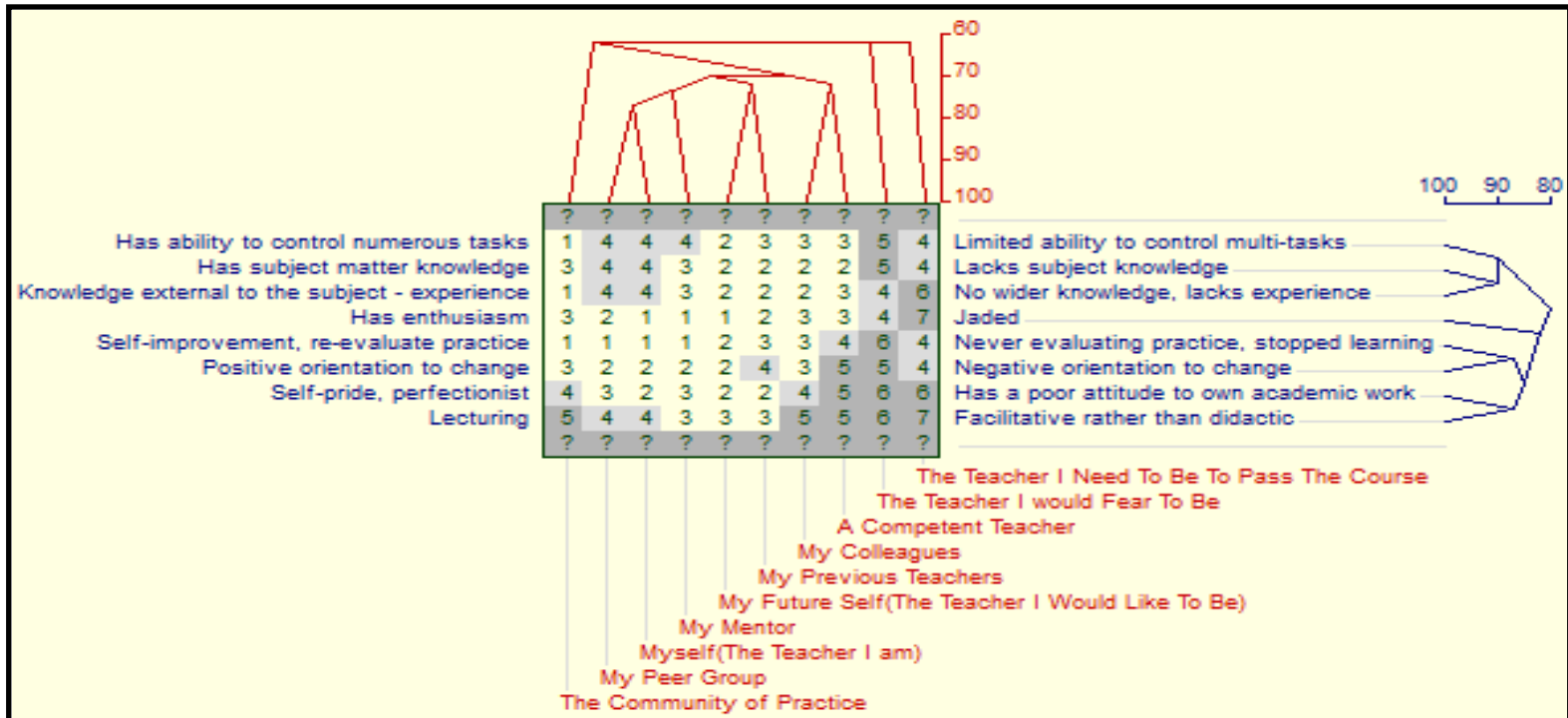


Figure 35 - Focus Sorting and Hierarchical Clustering Graph - Sarah (Grid 1 re-rated)

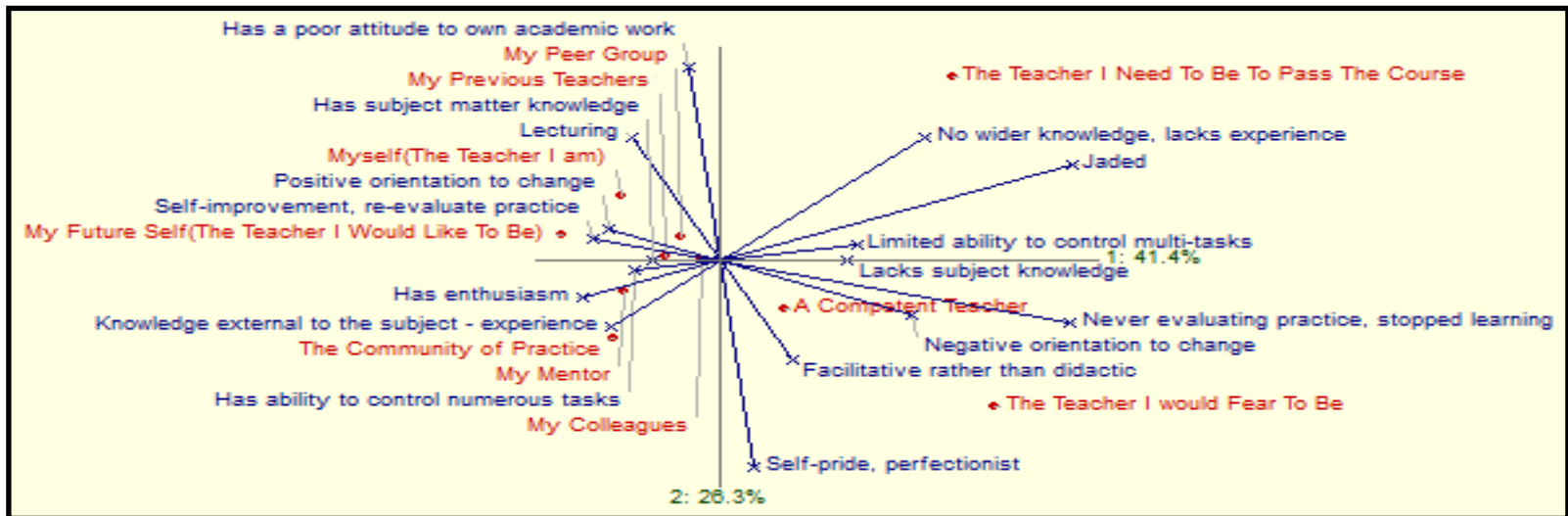


Figure 36 - PCA Graph - Sarah (Grid 1)

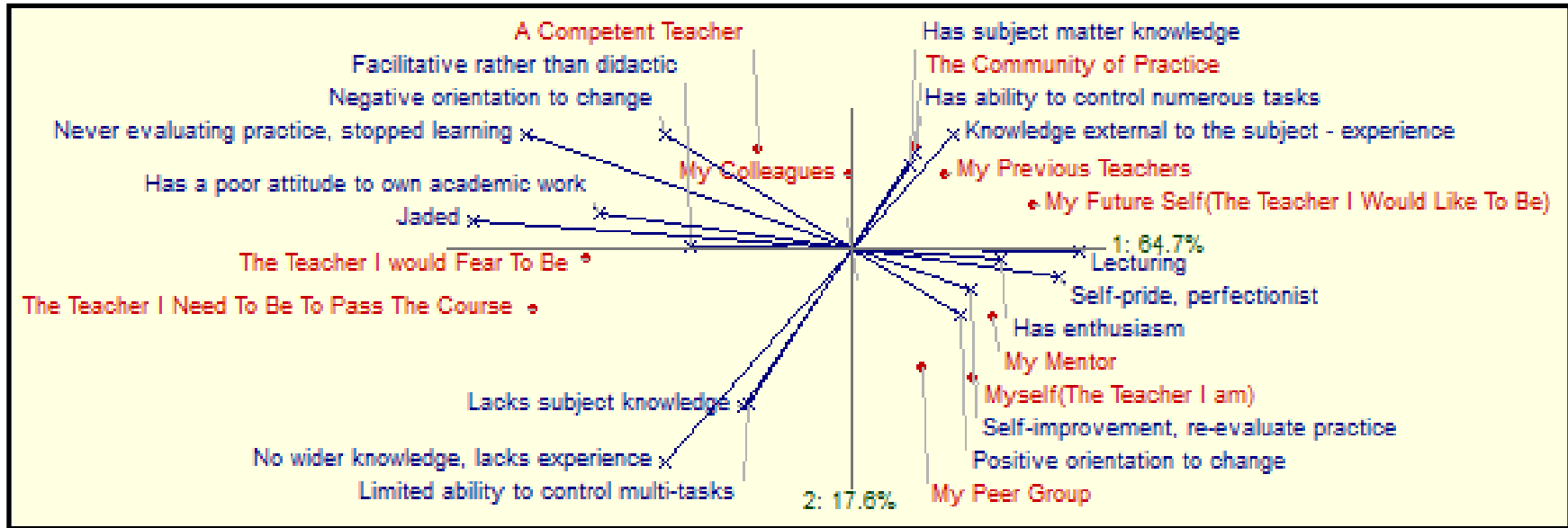


Figure 37 - PCA Graph - Sarah (Grid 1 re-rated)

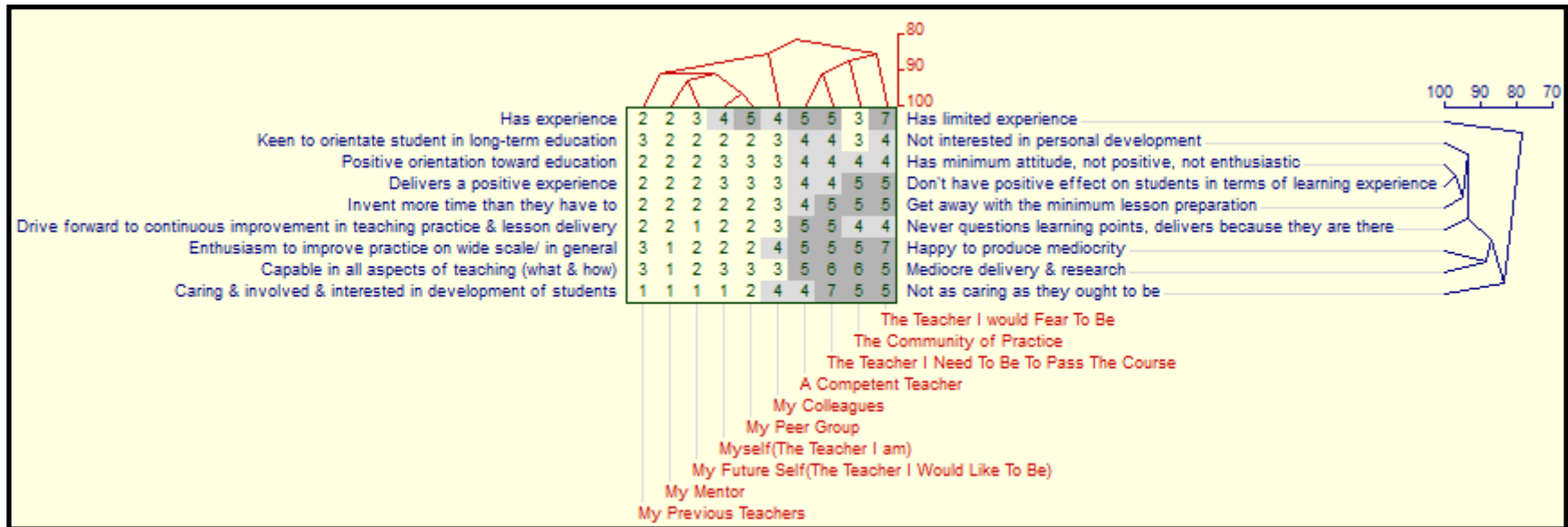


Figure 38 - Focus Sorting and Hierarchical Clustering Analysis Graph - Sarah (Grid 2)



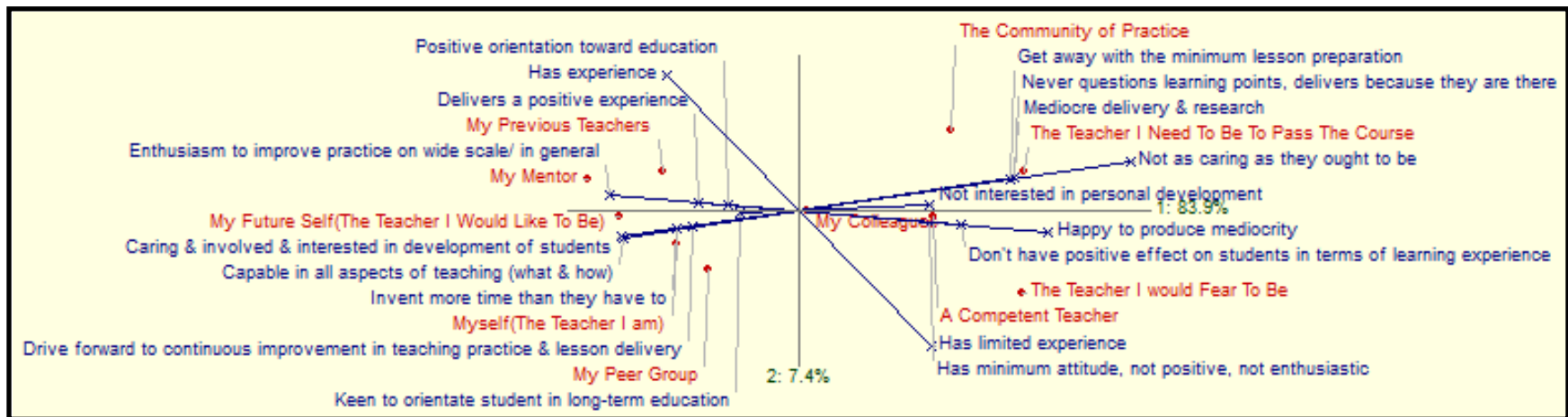


Figure 39 - PCA Graph – Sarah (Grid 2)

# ANNEX C - GARRY: CLUSTER ANALYSIS & PCA

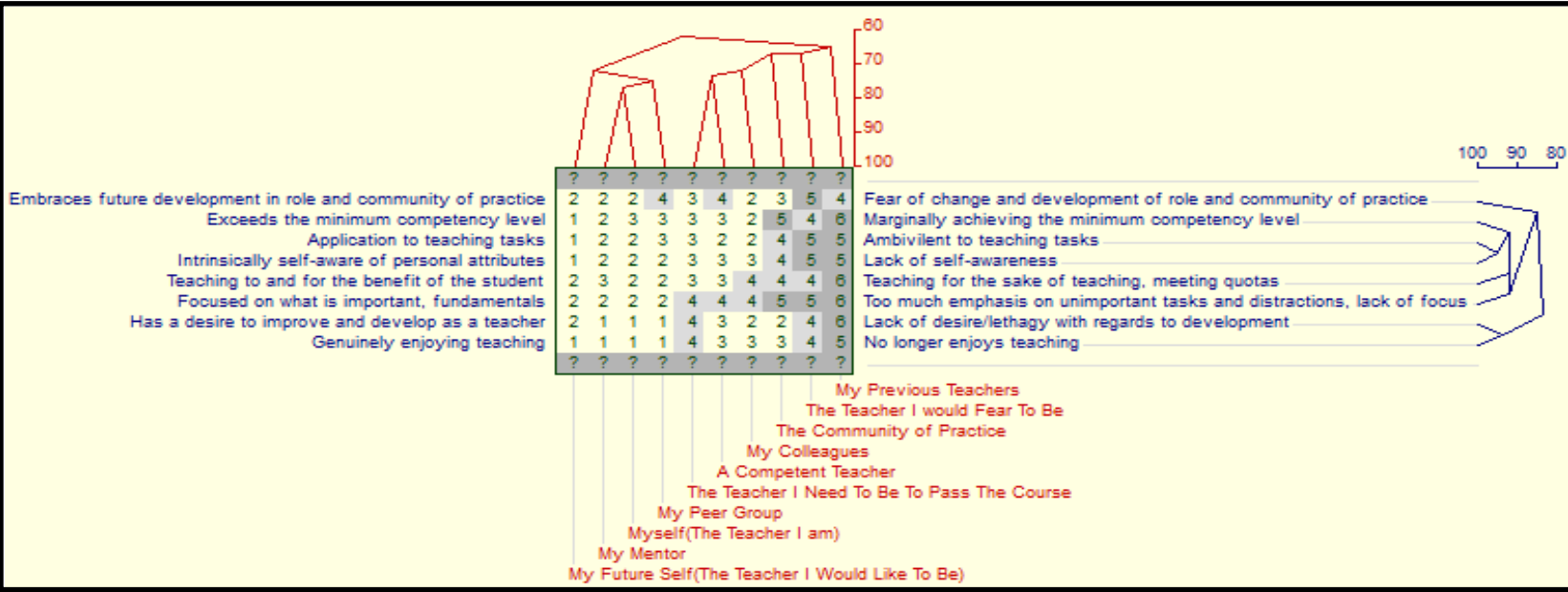


Figure 40 - Focus Sorting and Hierarchical Clustering Analysis Graph - Garry (Grid 1)



Figure 41 - PCA Graph - Garry (Grid 1)

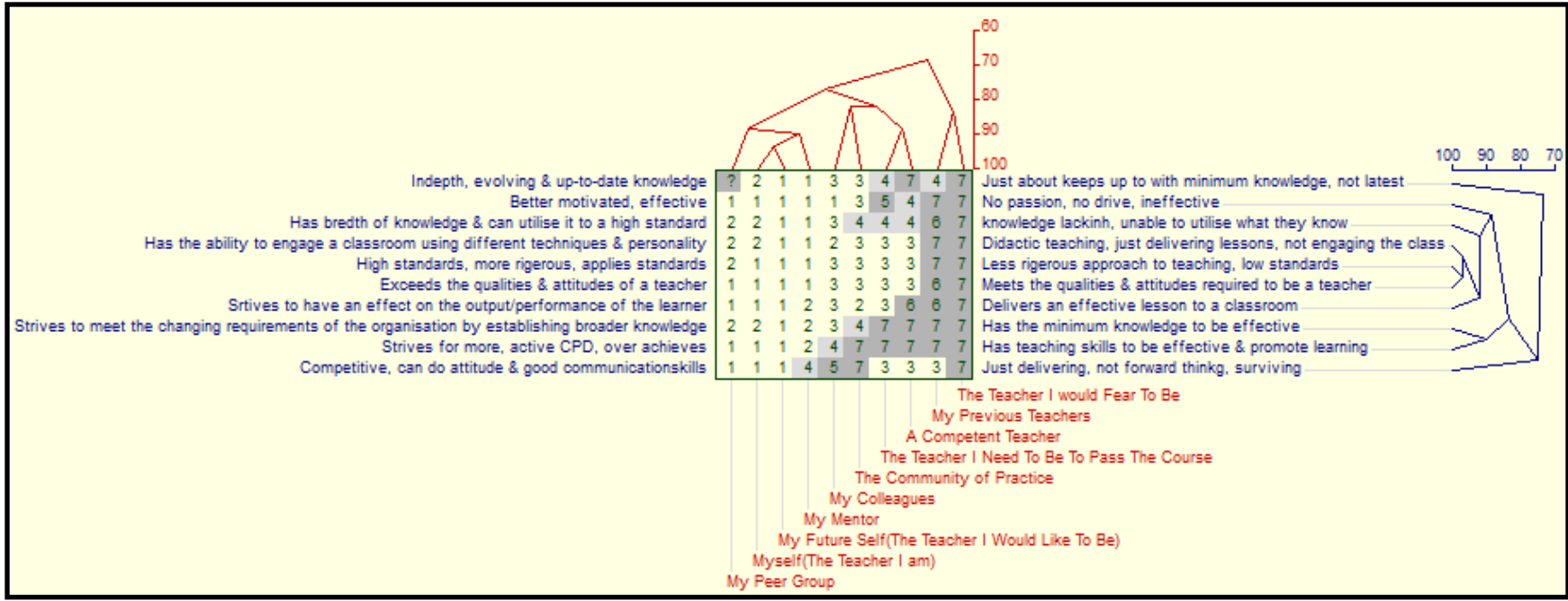


Figure 42 - Focus Sorting and Hierarchical Clustering Analysis Graph - Garry (Grid 2)

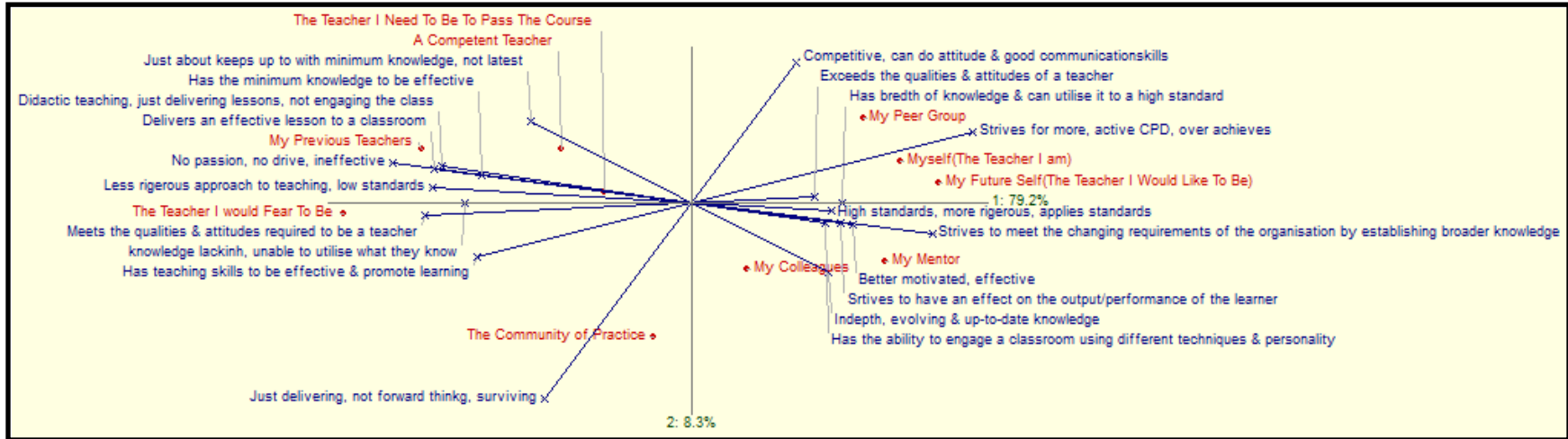


Figure 43 - PCA Graph - Garry (Grid 2)

# ANNEX D - PAUL: CLUSTER ANALYSIS & PCA

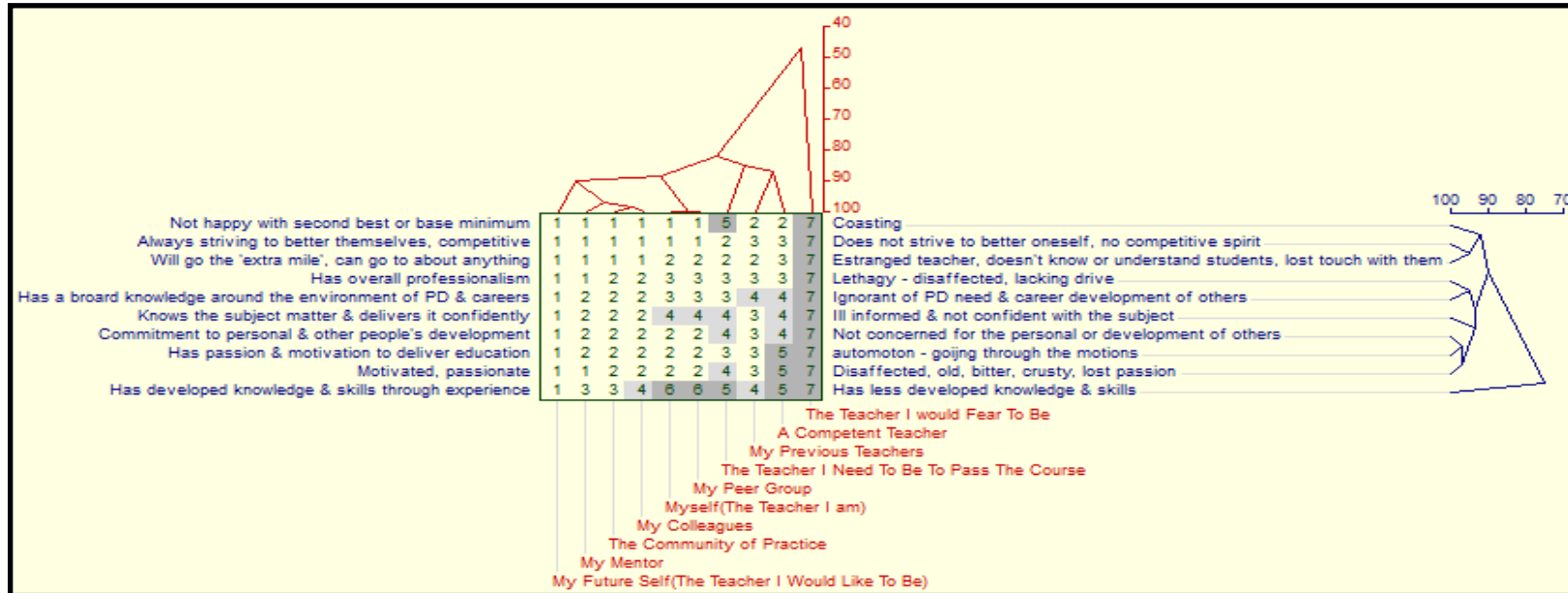


Figure 44 - Focus Sorting and Hierarchical Clustering Analysis Graph - Paul (Grid 1)

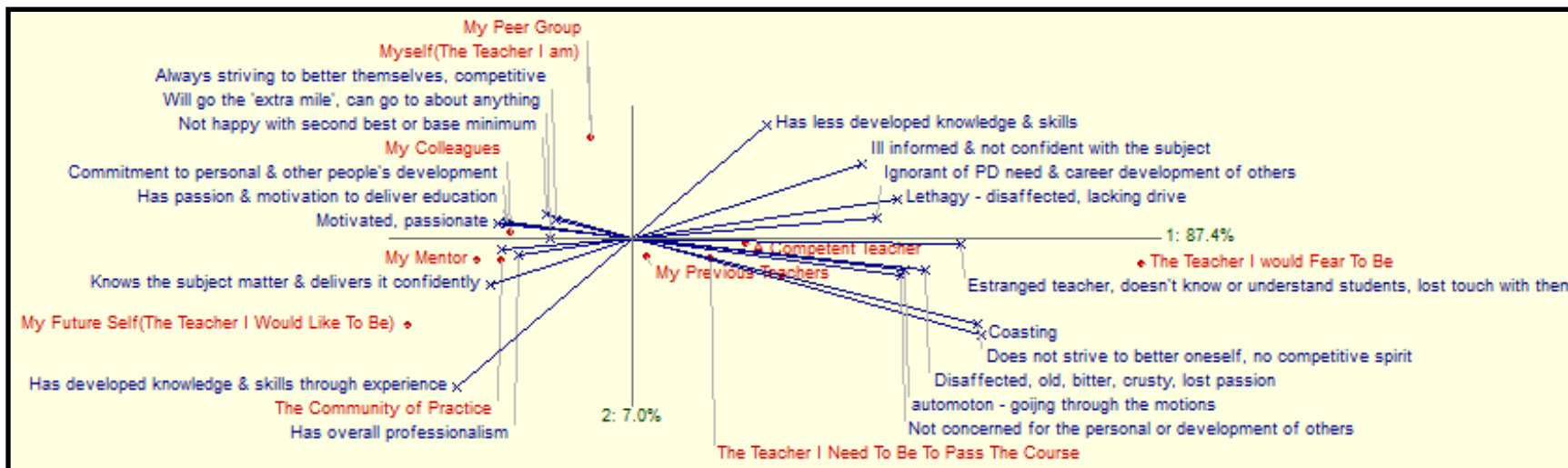


Figure 45 - PCA Graph - Paul (Grid 1)

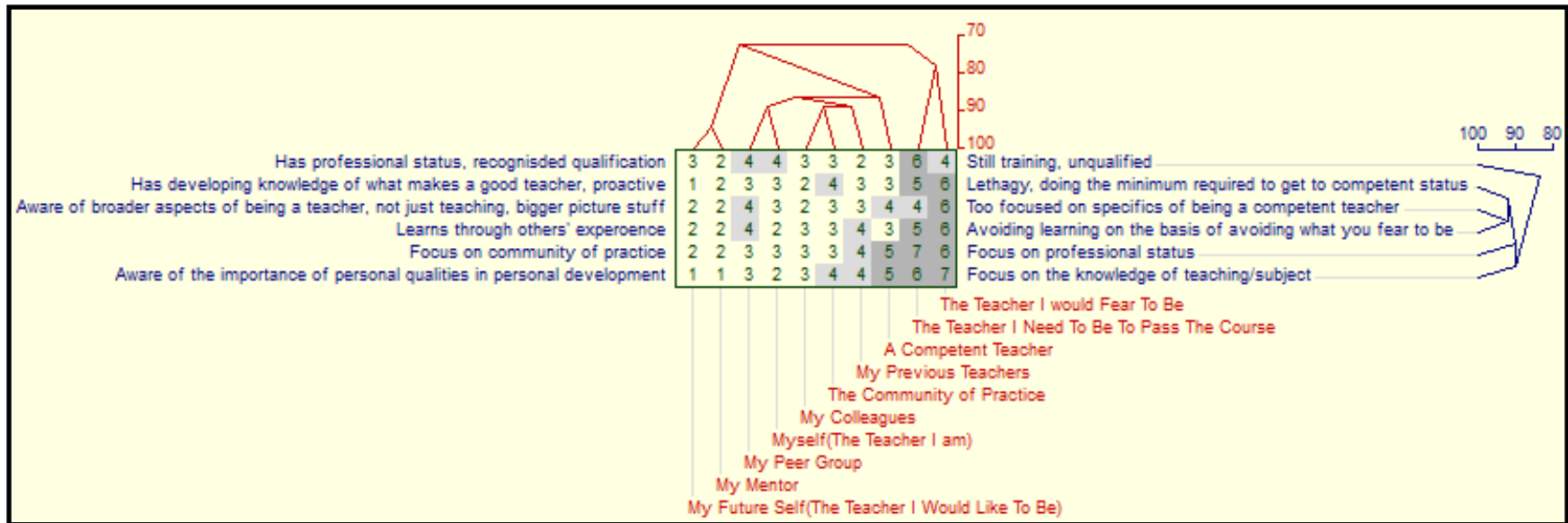


Figure 46 - Focus Sorting and Hierarchical Clustering Analysis Graph - Paul (Grid 2)



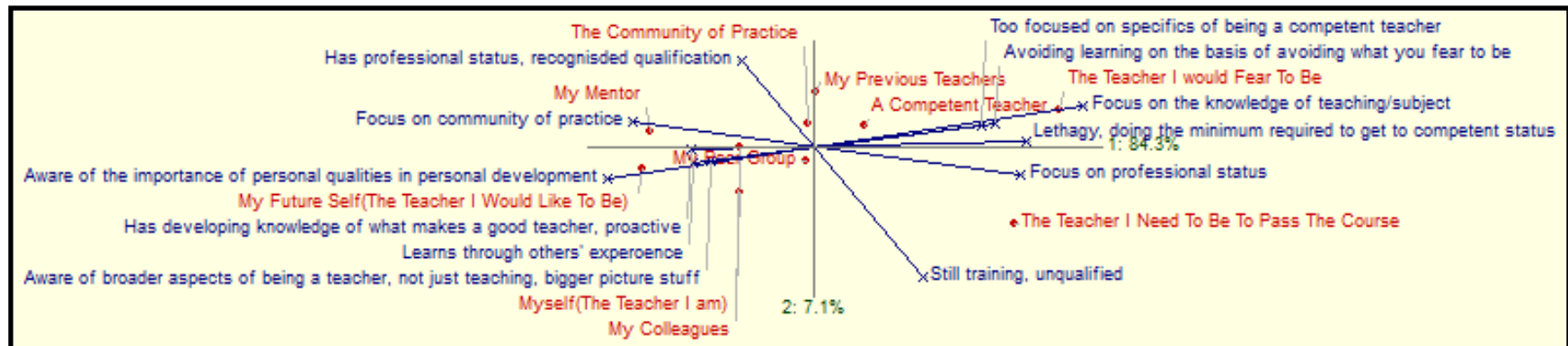


Figure 47 - PCA Graph - Paul (Grid 2)

# ANNEX E - DAVID: CLUSTER ANALYSIS & PCA

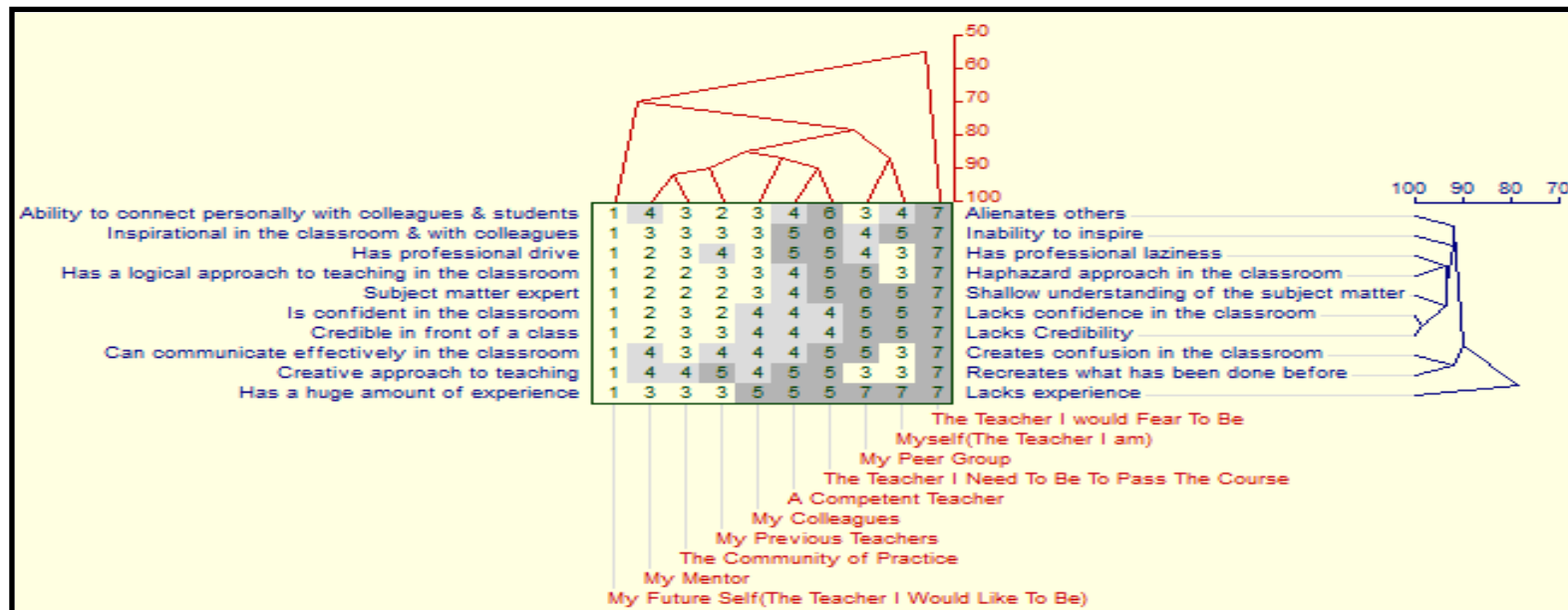


Figure 48 - Focus Sorting and Hierarchical Clustering Analysis Graph - David (Grid 1)

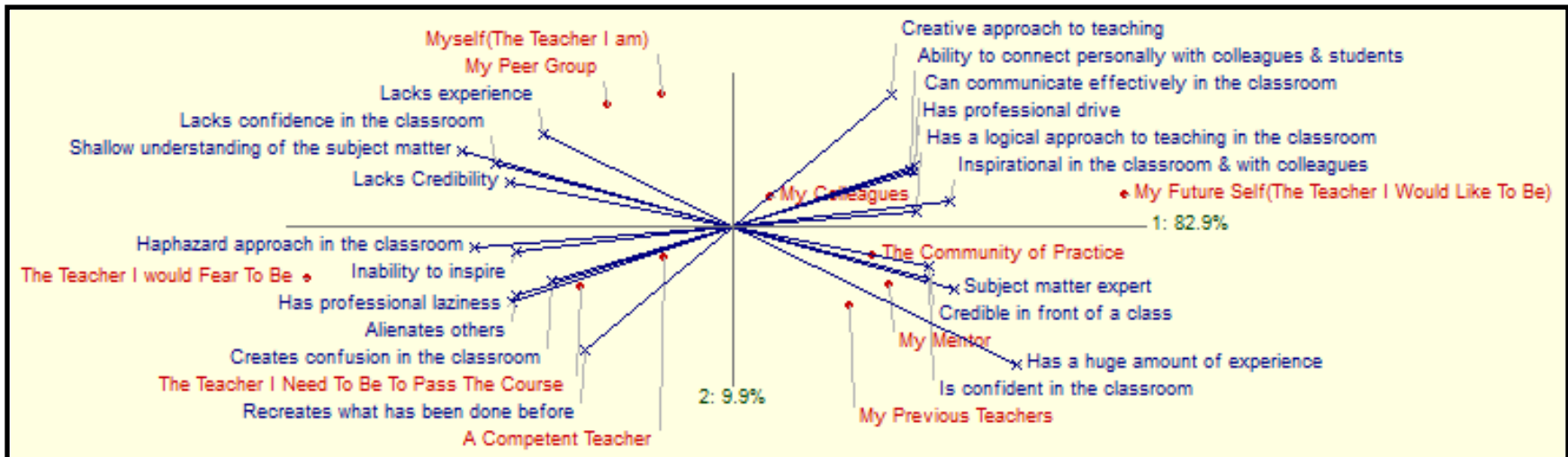


Figure 49 - PCA Graph - David (Grid 1)

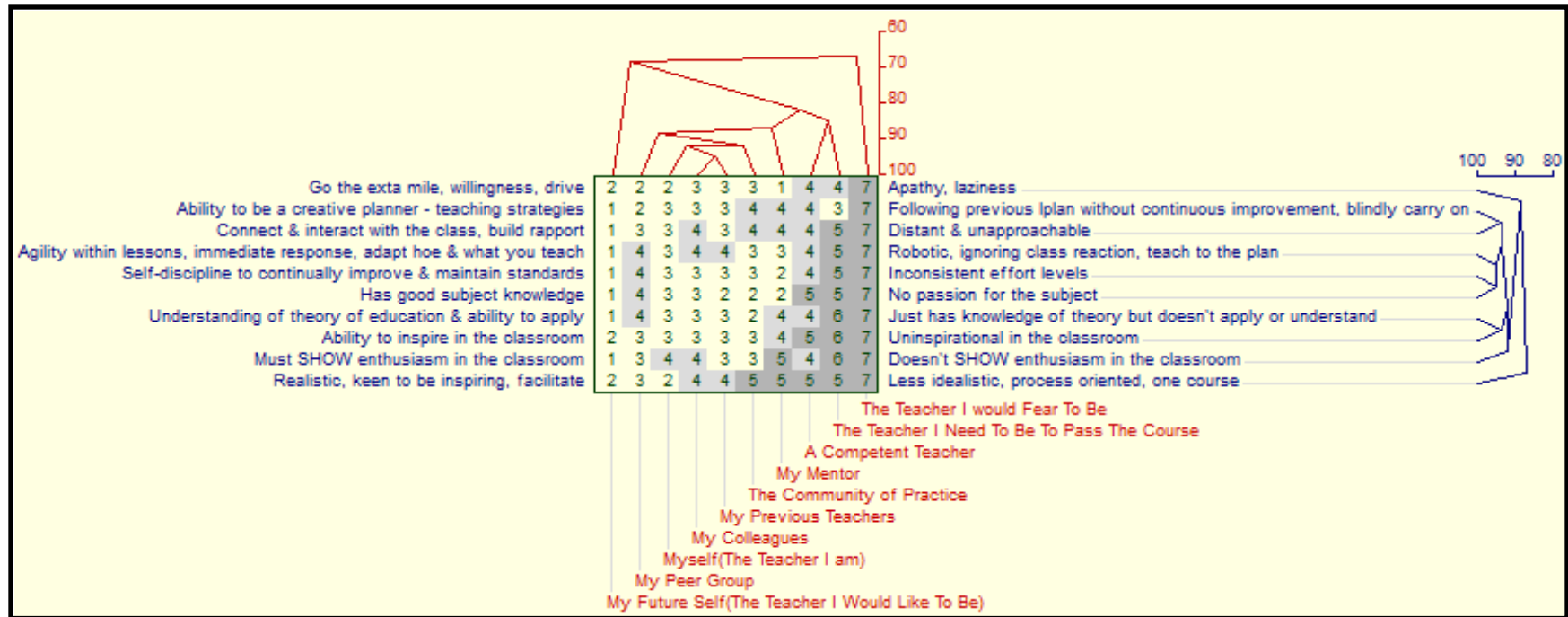


Figure 50 - Focus Sorting and Hierarchical Clustering Analysis Graph - David (Grid 2)

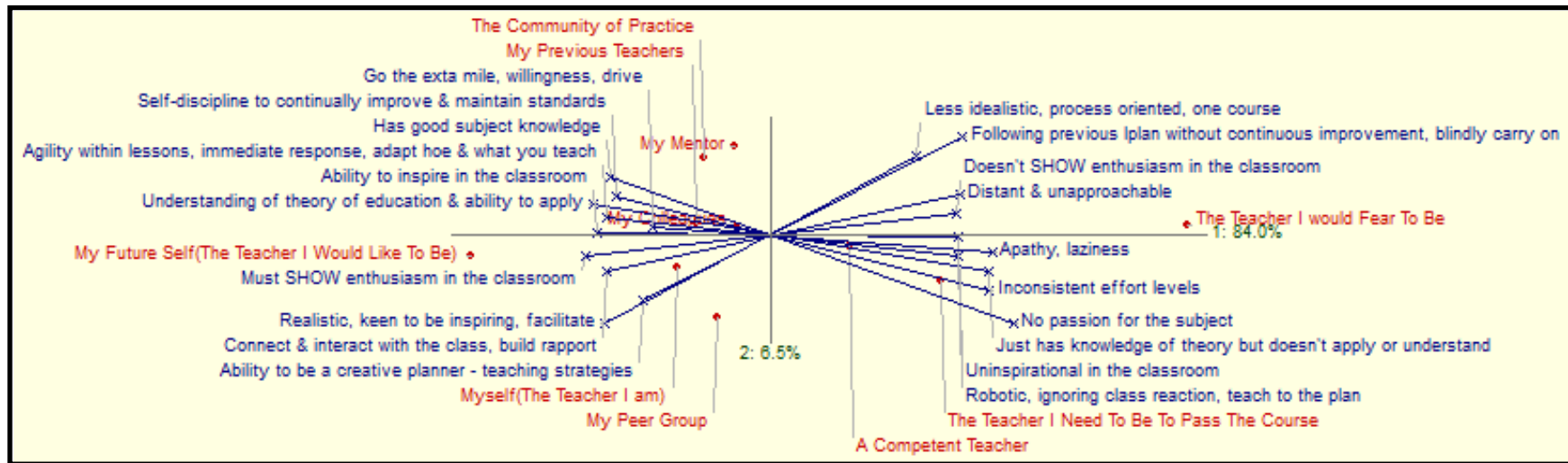


Figure 51 - PCA Graph – David (Grid 2)

# APPENDIX 1 - PARTICIPANT INFORMATION SHEET, CONSENT FORM & RECRUITING FORM

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## Information for Participants

### Study title

Becoming We: The Development of Personal Constructs in Communities of Practice

### Invitation to take part

I would like to invite you to take part in a research project, but before you can decide whether or not to take part it is important for you to understand why the research is being undertaken and what your participation will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask if there is anything that is not clear or if you would like more information.

### What is the purpose of the research?

The research aims to understand how your move into a new group of professionals changes your beliefs about teaching and learning. I am also interested in the impact of these changes on your identity and the extent to which your beliefs mirror those of your colleagues; hence the title of the study 'Becoming We'. It is expected that the study will help the Army better understand how to develop and balance professional training pathways between the classroom and the workplace.

### Who is doing this research?

The research is being conducted by Stefan Parry as part of the University of Hertfordshire's Doctorate in Education programme. Stefan is supervised by two experienced research supervisors from the University.

### Why have I been invited to take part?

You have been chosen because you are about to make the transition into your chosen professional practice and enter a new professional community.

### Do I have to take part?

You should feel under no obligation to take part in the research. The research is very much a collaborative effort between the researcher and the research participants and therefore you should only participate if you wish to do so. There is no penalty for not doing so.

### What will I be asked to do?

You will be asked to attend 3 or 4 interviews with the researcher over a 12-18 month period. These interviews may be held in your workplace or another convenient location. In the course of these interviews, the researcher will establish your views about teaching and learning and also find out how these views fit in with those of your friends and colleagues. The interviews will last a maximum of 3 hours and will be recorded. You may also be asked to complete a brief questionnaire. At the end of the research period, the principal researcher will write a case study which will tell the story of your transition into your professional community, and which you will be able to read and comment on.

### What is the device or procedure that is being tested?

The research aims to determine how much a group of professionals (your colleagues) and a workplace (your Education Centre) influences your understanding of teaching and learning as your work towards completing your Postgraduate Certificate in Education (PGCE)

### What are the benefits of taking part?

The interviews with the researcher will present you with an opportunity to discuss your experience of transition into professional practice with an experienced practitioner. Every interview is focused solely on you and your experiences. The research activities that you will undertake may help you become a more reflective practitioner as well as highlighting areas of future professional development. This opportunity for reflection and discussion will directly support and assist your

studies for your Postgraduate Certificate in Education (PGCE).

**What are the possible disadvantages and risks of taking part?**

Other than the time you spend with the researcher, there are no costs or disadvantages that you will incur by taking part in the research.

**Can I withdraw from the research and what will happen if I don't want to carry on?**

You are free to withdraw from the research at any time. Should you wish to do so you can stop any interview or research activity without giving a reason. Additionally, you can ask for any data or voice recordings collected as a result of the research activities to be destroyed at any time. There are no sanctions associated with withdrawing from the research.

**Are there any expenses and payments which I will get?**

The researcher will be meeting with you and conducting the research in your workplace and therefore you will not incur any expense as a participant.

**Will my taking part or not taking part affect my Service career?**

Absolutely not.

**Whom do I contact if I have any questions or a complaint?**

If you have any questions or a complaint you should contact, in the first instance, the Principle Researcher, Stefan Parry, via email [s.parry1@herts.ac.uk](mailto:s.parry1@herts.ac.uk)

Alternatively, you may also contact the MoDREC Secretariat Representative, Marie Jones, on 01980 658155 or [mnjones@dstl.gov.uk](mailto:mnjones@dstl.gov.uk)

**What happens if I suffer any harm?**

In the unlikely event of you suffering any adverse effects as a consequence of your participation in the research you may be eligible to apply for compensation under the terms of the MOD's *No Fault Compensation Scheme* (see details attached).

**Will my records be kept confidential?**

The data and records generated by the research will be kept in a safe and secure location and will be used purely for the purposes of the research project. You will have the right of access to any data or records held on you and you may read and comment on all draft research reports. All necessary steps will be taken to protect your privacy, and your anonymity and non-traceability. All data and records will be subject to the current conditions of the Data Protection Act 1998.

**Who is organising and funding the research?**

The research is being undertaken as part of the University of Hertfordshire's Doctorate in Education programme. Participation in this programme is privately funded.

**Who has reviewed the study?**

A full scientific protocol for this research has been reviewed and approved by the Ministry of Defence Research Ethics Committee (MoDREC) and by the University of Hertfordshire's Post Registration Ethics Committee.

**Further information and contact details.**

For further information please contact the Principle Researcher, Stefan Parry by email [s.parry1@herts.ac.uk](mailto:s.parry1@herts.ac.uk)

**Compliance with the Declaration of Helsinki.**

This study complies, and at all times will comply, with the Declaration of Helsinki<sup>19</sup> as adopted at the 59<sup>th</sup> WMA General Assembly, Seoul, October 2008. Please ask the researcher if you would like further details of the ethical approval of this research or if you wish to see a copy of the protocol.

<sup>19</sup> World Medical Association (2008) Declaration of Helsinki. Ethical Principles for Medical Research Involving Human Subjects. 59th World Medical Association General Assembly, Seoul, October 2008.

# Consent Form for Participants in Research Studies

Title of Study: Becoming We: The Development of Personal Constructs in Communities of Practice

Ministry of Defence Research Ethics Committee Reference: 136/Gen/10

University of Hertfordshire Ethics Committee Reference: 09-10.17

- The nature, aims and risks of the research have been explained to me. I have read and understood the Information for Participants and understand what is expected of me. All my questions have been answered fully to my satisfaction.
- I understand that if I decide at any time during the research that I no longer wish to participate in this project, I can notify the researchers involved and be withdrawn from it immediately without having to give a reason. I also understand that I may be withdrawn from it at any time, and that in neither case will this be held against me in subsequent dealings with the Ministry of Defence.
- I consent to the processing of my personal information for the purposes of this research study. I understand that such information will be treated as strictly confidential and handled in accordance with the provisions of the Data Protection Act 1998.
- I agree to volunteer as a participant for the study described in the information sheet and give full consent.
- This consent is specific to the particular study described in the Information for Participants attached and shall not be taken to imply my consent to participate in any subsequent study or deviation from that detailed here.
- I understand that in the event of my sustaining injury, illness or death as a direct result of participating as a volunteer in Ministry of Defence research, I or my dependants may enter a claim with the Ministry of Defence for compensation under the provisions of the no-fault compensation scheme, details of which are attached.

Participant's Statement:

I \_\_\_\_\_

agree that the research project named above has been explained to me to my satisfaction and I agree to take part in the study. I have read both the notes written above and the Information for Participants about the project, and understand what the research study involves.

Signed

Date

WitnessName

Signature

Investigator's Statement:

I \_\_\_\_\_

confirm that I have carefully explained the nature, demands and any foreseeable risks (where applicable) of the proposed research to the Participant.

Signed

Date

**AUTHORISING SIGNATURES**

The information supplied above is to the best of my knowledge and belief accurate. I clearly understand my obligations and the rights of research participants, particularly concerning recruitment of participants and obtaining valid consent.



Signature of Chief Investigator

.....

Date

Name and contact details of Independent Medical Officer (if appropriate):  
N/A

Name and contact details of Chief Investigator:  
Stefan Parry  
[s.parry1@herts.ac.uk](mailto:s.parry1@herts.ac.uk)

## Research Project – Co-investigator Recruitment Form

I have read the *Information for Participants Form* and I am interested in becoming a co-investigator in the research project:  
(please tick)

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

If **Yes**, please complete the following:

(Note: all personal data will be handled in accordance with the requirements of the University of Hertfordshire and the MoD Research Ethics Committee and as stated on the *Information for Participants Form*)

Surname	
First Name or Nickname	
Education Centre	
Location	
Email address (1)	
Email address (2)	
Telephone Contact (1)	
Telephone Contact (2)	

Additional Comments:

Thank you for your time and attention.

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Should you wish to contact me to discuss the research in greater detail please feel free to email me at:

[s.parry1@herts.ac.uk](mailto:s.parry1@herts.ac.uk)

## APPENDIX 2 - ETHICAL APPROVAL MODREC

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### MOD Research Ethics Committee (General)

Corporate Secretariat  
Bldg 5, G01-614  
Dstl Porton Down  
Salisbury, Wiltshire  
SP4 0JQ  
Secretary: Marie Jones  
telephone: 01980 658155  
e-mail: mnjones@dstl.gov.uk  
fax: 01980 613004

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Major Stefan Parry  
Officer Tutor  
HQ 4 Div  
77 AEC  
St Omer Barracks  
Aldershot  
GU11 2BG

Ref: 136/Gen/10

29th June 2010

Dear Major Parry,

**Re: Becoming We: The Development of Personal Constructs in Communities of Practice – version 5**

Thank you for submitting this protocol for ethical review and making minor amendments.

I am happy to give ethical approval for this research and should be grateful if you would send me a copy of your final report on completion of the study. Please would you also send me a brief interim report in one year's time if the study is still ongoing.

This approval is conditional upon adherence to the protocol – please let me know if any amendment becomes necessary.

Yours sincerely,

A handwritten signature in blue ink that reads "Robert Linton".

Dr Robert Linton  
Chairman MOD Research Ethics Committee (General)  
telephone: 020 8877 9329

## APPENDIX 3 - ETHICAL APPROVAL UH

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### FACULTY OF HUMANITIES, LAW & EDUCATION

#### Application for approval of a study programme involving human informants

**Applicants:** Stefan Parry

**Supervisors:** Dr Joy Jarvis, Professor Helen Payne

**Date:** 8 June 2010

**Title of study programme:** Becoming We: The Development of Personal Constructs in Communities of Practice

**Protocol no** 09-10.17

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Dear Stefan,

I am pleased to confirm that your application for the above study programme has been circulated to the members of the Faculty Ethics Committee and approved with a data collection end date of 30 June 2012.

If the investigation is ongoing as at 30 June 2012, we would like to remind you that your application should be resubmitted to the Faculty Ethics Committee for extended approval. I will contact you nearer the time asking you to confirm whether or not the investigation is still ongoing.

Kind regards

*Rachel Cox*

Rachel Cox  
Senior Administrator (Academic Quality)  
[R.L.Cox@herts.ac.uk](mailto:R.L.Cox@herts.ac.uk)  
R343 de Havilland

# APPENDIX 4 - INTERVIEW PROTOCOLS

## Interview Protocol – Preliminary Interview

Serial	Activity	Dialogue	Notes	Completed
<i>Pre-interview Administration</i>				
01	Develop rapport	Normal preamble to gain rapport with CR	Ensure that the CR is thanked for their participation in the research project.	
02	Discussion of research questions	<p><b>At the heart of this research project is an interest in personal change. In particular, the change that one might experience during a period of professional career transition much like you are undergoing now. I am interested in how your work community (or CoP) influences your perspectives on teaching and learning (your constructs), your professional identity, and your future direction. I therefore have a number of research questions which I hope to answer, they are:</b></p> <p><i>How, and to what extent, do Communities of Practice influence the development of constructs in beginning teachers?</i></p> <p><b>Research sub-questions:</b></p> <p><b>1. How does the construing of beginning teachers change over a 12 – 18 month period?</b></p> <p><b>2. How do beginning teachers view their identities, positions and trajectories within their Communities of Practice, and how does this view change over a 12 – 18 month period?</b></p> <p><b>3. What do beginning teachers believe influences the development of their constructs?</b></p> <p><b>4. To what extent do the construction systems of beginning teachers tend towards the construction system of the Community of Practice following a 12 – 18 month period of professional practice?</b></p> <p><b>In the research interviews I will be exploring six main themes surrounding your perspectives on teaching and learning, and being a teacher – I would ask that, prior to our first meeting, you give these themes some thought.</b></p> <p><b>Why is the research worth doing? I think it is important to better understand the experiences of beginning</b></p>	<p>Themes:</p> <p>1) your perspectives on teaching and learning</p> <p>2) your influences</p> <p>3) the commonality between your perspectives and the perspectives of your colleagues</p> <p>4) your professional identity</p> <p>5) your position within your work place community</p> <p>6) your hoped or anticipated trajectory</p>	

		<p>teachers so that we are better able to support them during their transition to practice. By more fully understanding this transition we can better understand and manage the relationship between teacher training and practice.</p>		
03	Stages of the research project	<p>The research is broken down into a number of stages:  <b>S1) The preliminary interview (now)</b>  <b>S2) Three research interviews – 6 months apart</b>  <b>S3) Three interpretive interviews – one following each research interview</b>  <b>S4) Editing the research ‘stories’</b>  As the CR, you are intimately involved in each of these stages and are a key part of the researching and analysing process.</p>	See Arvay (2003)	
04	Roles and responsibilities	<p>As the principal researcher I am responsible for every element of the conduct and organisation of the research. In particular, I will always arrange the research meetings around what is convenient for you. As the CR, all I ask is that you are honest and open about your experiences as a beginning teacher.</p>		
05	The research relationship	<p>It is important to me that our relationship as co-researchers is as equal as possible. As the principal researcher I have already stated that the conduct and organisation of the research is my responsibility. However, the setting of the research agenda and the themes explored during the research is very much shared between us. Although I will begin each interview with some prepared questions, I would encourage you to introduce the topics and themes that you are important to you as a beginning teacher. Similarly, you should let me know if you feel that any of my questions are not relevant. In each interview you will have an opportunity to introduce new themes and topics.</p>		
06	Philosophical values of the research design	<p>This research rests on the philosophical position that the self is constituted, in part, through the stories we tell and that telling those stories can be a transformative experience that changes with each retelling. I hope that, through your narrative, we can co-construct your experiences of being a beginning teacher. I am therefore interested in your critical incidents and stories; not just regarding your transition into your current role, but any stories that illustrate your perspectives on teaching</p>		

		and learning. Therefore, there are no 'right' answers to the questions that I ask, nor am I looking for you to respond in a particular way.		
07	Consent	It is vital that you enter into this project as a CR willingly and with all the relevant information. You will have an opportunity to read the Information for Participants Form a minimum of one week before the first interview. Before you sign the research consent form you should ask any final questions.	CR must have received the Info for Participants a min 1 week before the interview. *A witness is required for the consent form*	
<i>End of Interview</i>				
08	Allow the CR to ask questions about the research	Do you have any questions about the research project at this point?		
09	Confirm date/time for research meeting	Confirm date, time and location of meeting.		

## Interview Protocol – Interview 1

Serial	Activity	Dialogue	Notes	Completed
<i>Pre-interview Administration</i>				
01	Welcome/introduction	Normal preamble to gain rapport with CR		
02	Structure & timings of interview	<p><b>During today's research we will explore six main themes:</b></p> <p><b>1) your perspectives on teaching and learning</b></p> <p><b>2) your influences</b></p> <p><b>3) the commonality between your perspectives and the perspectives of your colleagues</b></p> <p><b>4) your professional identity</b></p> <p><b>5) your position within your work place community</b></p> <p><b>6) your hoped or anticipated trajectory</b></p> <p>We will mainly explore these themes during an interview but we will also conduct two other activities which I will explain in more detail to you at the time. These are called a <i>Repertory Grid</i> and a <i>Trajectory Target</i>. I hope that the research interview will take no longer than two hours.</p>	<p>Researcher must have definitions of key terms available to discuss with CR.</p> <p>Explain that the CR can use stories from any COP but the questions refer to the workplace COP.</p>	
03	Ethical consent	<p>It is vital that you enter into this project as a co-researcher willingly and with all the relevant information. You have already had an opportunity to read the Information for Participants Sheet. Would you like to ask any questions about the research?</p> <p>If you are happy, I would like to ask you to sign the Research Consent Form to indicate that you are a willing participant in this research project.</p>	<p>CR must have received the Info for Participants a min 1 week before the interview.</p> <p>*A witness is required for the consent form*</p>	
04	Permission to record the interview	In order to concentrate more fully on our discussions, I would like to record this interview. The audio file will be retained by me on a password protected computer and will be destroyed on completion of the research project. Do I have your permission to record the interview?	Notice of the requirement to record the interview was given in the Info for Participants sheet.	
05	Reminder of the narrative approach	This research rests on the philosophical position that the self is constituted, in part, through the stories we tell and that telling those stories can be a transformative experience that changes with each retelling. I hope that, through your narrative, we can co-construct your experiences of being a beginning teacher. I am therefore interested in the critical incidents and your stories of transition into your		



		current role.		
<b>General Background/Warmer Questions</b>				
06	Understanding CR's school and/or university experience	Tell me about your experiences of school and/or university. Who or what are your biggest influences during that time in your life?	Try to elicit stories and critical incidents.	
07	Understanding the CR's decisions	Tell me about your decision to join the Army. Tell me about your decision to join the Educational and Training Services Branch.	Try to elicit stories and critical incidents.	
08	Understanding the CR's PGCE course experience	Tell me about your PGCE course so far.	Examine the positive and negative aspects of the course.	
09	Understanding the CR's teaching experience	Tell me about your experience of teaching so far.	Examine ideas related to LPP and apprenticeship (Lave & Wenger (1991)) When did the CR start teaching?	
<b>Activity – *Repertory Grid*</b>				
10	Elicit Constructs about teaching and learning through RepGrid		Minimum 10 constructs.	
<b>Theme 1 – Perspectives on Teaching and Learning</b>				
11	Understanding the CR's perspective on teaching and learning	Tell me about your best and worst educational experiences. Tell me what you think is important about teaching and learning.	Try to elicit perspectives on a range of teaching and learning related issues. Try to explore why the co-researcher feels this way	
12	Understanding the CR's perspective on being a teacher	Tell me what you think is important about being a teacher. What are the attributes of successful teachers? What do you feel it is important that you learn to become a teacher?	Try to elicit perspectives on the Knowledge, Skills and Attitudes of teachers. Explore why the CR feels this way Examine what CR want to learn (Nielsen (2008))	
<b>Theme 2 – Influences on Perspectives</b>				
13	Understanding what influences the CR's perspectives on teaching and learning	You clearly have perspectives on teaching and learning and being a teacher. Tell me how you have formed your perspectives. What would you say are the strongest influences on you as a teacher?	Try to examine what (PGCE) or who (colleagues /past teachers)	
<b>Theme 3 – Commonality of Perspectives</b>				
14	Understanding the commonality between the CR's perspectives and the perspective of the COP	How similar are your perspectives on teaching and learning and being a teacher to the perspectives of your colleagues? How similar are the perspectives of your colleagues on teaching and learning and being a teacher to the perspectives forwarded during your PGCE course?	Explore issues surrounding the tolerance of the COP with different ideas. Explore the differences between the ITE and the COP perspectives.	

BREAK				
<i>Theme 4 – Perspectives on Professional Identity</i>				
15	Understanding the CR's basic perspectives of teacher identity	How do you think you become a teacher?		
		How will you know when you are a teacher?		
16	Understanding the CR's professional adaption strategies	Tell me about the kind of teacher you want to become	Explore the observation, experimentation, evaluation model (Ibarra (1999))	
		Is there anyone that you know that is like this as a teacher?		
		How will you become like this person?		
17	Establishing the CR's level of identity conflict	How big is the gap between the teacher you are now and the teacher you want to become.	Try to establish the amount and effect of emotive dissonance (Ibarra (1999))	
		How does this gap make you feel?		
<i>18 - Activity – *Trajectory Target*</i>				
<i>Theme 5 – Your Position with your Community</i>				
19	Understanding the CR's perspective on their position within the workplace community	Using the trajectory target we have just completed, tell be about where you have positioned yourself in relation to the workplace COP.	Try to establish how the CR conceptualizes their current position/place in the COP. Examine ideas related to LPP and apprenticeship (Lave & Wenger (1991))	
		Why have you placed yourself there?		
<i>Theme 6 – Your hope/anticipated Trajectory</i>				
20	Understanding the CR's perspective on their trajectory within the workplace community	Using the trajectory target we have just completed, tell be about your hoped/anticipated trajectory in relation to the workplace COP.	Try to establish how the CR conceptualizes their future direction with respect to the COP.	
		How much power and influence do you believe you have over your trajectory?	Explore issues of career ownership.	
<i>End of Interview</i>				
21	Allow the CR to influence the research agenda	Thank you for your views, perspectives and stories on the themes we have explored. Is there anything else you think is important for me to understand about your experiences of becoming a teacher that we haven't yet discussed?	Try to allow the CR to highlight areas/themes which are important to them.	
22	Allow the CR to ask questions about the research	Do you have any questions about the themes we have discussed or about the research process in general?		
23	Next research meeting	We will meet next in 3-4 weeks to conduct our collaborative interpretation of this interview. I hope to have a transcript for interpretation within 10 days. Our next research interview will be in 6 months.	Try to get a diary date for the next meeting.	

## Interview Protocol – Interview 2

Serial	Activity	Dialogue	Notes	Completed
<i>Pre-interview Administration</i>				
01	Welcome/introduction	Normal preamble to gain rapport with CR		
02	Structure & timings of interview	<p><b>During today's research we will explore six main themes:</b></p> <p><b>1) your perspectives on teaching and learning</b></p> <p><b>2) your influences</b></p> <p><b>3) the commonality between your perspectives and the perspectives of your colleagues</b></p> <p><b>4) your professional identity</b></p> <p><b>5) your position within your work place community</b></p> <p><b>6) your hoped or anticipated trajectory</b></p> <p><b>We will mainly explore these themes during an interview but we will also conduct two other activities which I will explain in more detail to you at the time. These are called a <i>Repertory Grid</i> and a <i>Trajectory Target</i>.</b></p> <p><b>I hope that the research interview will take no longer than two hours.</b></p>	<p>Researcher must have definitions of key terms available to discuss with CR.</p> <p>Explain that the CR can use stories from any COP but the questions refer to the workplace COP.</p>	
03	Ethical consent	<p><b>It is vital that you enter into this project as a co-researcher willingly and with all the relevant information.</b></p> <p><b>You have already had an opportunity to review the Information for Participants Sheet. Would you like to ask any questions about the research?</b></p>	<p>CR must have received the Info for Participants a min 1 week before the interview to review.</p> <p>*consent form was has already been sign - check*</p>	
04	Permission to record the interview	<p><b>In order to concentrate more fully on our discussions, I would like to record this interview. The audio file will be retained by me on a password protected computer and will be destroyed on completion of the research project. Do I have your permission to record the interview?</b></p>	<p>Notice of the requirement to record the interview was given in the Info for Participants sheet.</p>	
05	Reminder of the narrative approach	<p><b>This research rests on the philosophical position that the self is constituted, in part, through the stories we tell and that telling those stories can be a transformative experience that changes with each retelling. I hope that, through your narrative, we can co-construct your experiences of being a beginning teacher. I am therefore interested in the critical incidents and your stories of transition into your current role.</b></p>		

<b>Theme 1 – Perspectives on Teaching and Learning</b>				
06	Understanding the CR's teaching experience	<b>It's been a year since we last met. Tell me about your teaching experiences in the last year.</b>	Try to elicit critical incidents and stories.	
		<b>Tell me about the best and worst lessons/classes you have taught in the last year.</b>	Examine ideas related to LPP and apprenticeship (Lave & Wenger (1991))	
		<b>What are the attributes of the successful lessons/classes?</b>		
07	Understanding the CR's perspective on teaching and learning	<b>Tell me what you now think is important about teaching and learning?</b>	Try to elicit perspectives on a range of teaching and learning related issues. Try to explore why the co-researcher feels this way	
		<b>How and why has your view changed in the past 12 months?</b>		
08	Understanding the CR's perspective on being a teacher	<b>Tell me what you think is important about being a teacher.</b>	Try to elicit perspectives on the Knowledge, Skills and Attitudes of teachers. Explore why the CR feels this way	
		<b>How and why has your view changed in the past 12 months?</b>		
09	Summarising the CR's experiences	<b>What have you learned about teaching and learning, and about being a teacher, in the last 12 months?</b>	Examine what CR want to learn (Nielsen (2008))	
<b>Activity – *Repertory Grid*</b>				
10	Elicit Constructs about teaching and learning through RepGrid		Minimum 10 constructs.	
<b>Theme 2 – Influences on Perspectives</b>				
11	Understanding what influences the CR's perspectives on teaching and learning	<b>You clearly have perspectives on teaching and learning and being a teacher. Tell me how you have formed your perspectives.</b>	Try to examine what (PGCE) or who (colleagues /past teachers)	
		<b>What would you say are the <i>strongest</i> influences on you as a teacher?</b>		
		<b>How has your PGCE course influenced your development as a teacher?</b>		
<b>Theme 3 – Commonality of Perspectives</b>				
12	Understanding the commonality between the CR's perspectives and the perspective of the COP	<b>How similar are your perspectives on teaching and learning and being a teacher to the perspectives of your colleagues?</b>	Explore issues surrounding the tolerance of the COP with different ideas.	
		<b>How similar are the perspectives of your colleagues on teaching and learning and being a teacher to the perspectives forwarded during your PGCE course?</b>	Explore the differences between the ITE and the COP perspectives.	
<b>BREAK</b>				
<b>Theme 4 – Perspectives on Professional Identity</b>				
13	Understanding the CR's basic perspectives of teacher identity	<b>How do you think you have changed as a person in the last 12 months?</b>		
		<b>How do you think you have changed as a teacher in the last 12 months?</b>		

14	Understanding the CR's professional adaption strategies	<b>Tell me about the kind of teacher you have become</b>	Explore the observation, experimentation, evaluation model (Ibarra (1999))	
		<b>How have you developed into this teacher</b>		
		<b>Who or what has been influential in your development as a teacher</b>		
15	Establishing the CR's level of identity conflict	<b>How different are you from the teacher you would aspire to be?</b>	Try to establish the amount and effect of emotive dissonance (Ibarra (1999))	
		<b>How does this gap make you feel?</b>		
<b>16 - Activity – *Trajectory Target*</b>				
<b>Theme 5 – Your Position with your Community</b>				
17	Understanding the CR's perspective on their position within the workplace community	<b>Using the trajectory target we have just completed, tell be about where you have positioned yourself in relation to the workplace COP.</b>	Try to establish how the CR conceptualizes their current position/place in the COP. Examine ideas related to LPP and apprenticeship (Lave & Wenger (1991))	
		<b>Why have you placed yourself there?</b>		
<b>Theme 6 – Your hope/anticipated Trajectory</b>				
18	Understanding the CR's perspective on their trajectory within the workplace community	<b>Using the trajectory target we have just completed, tell be about your hoped/anticipated trajectory in relation to the workplace COP.</b>	Try to establish how the CR conceptualizes their future direction with respect to the COP.	
		<b>How much power and influence do you believe you have over your trajectory?</b>		
<b>19 - Activity – *Ways of learning to teach in PCET questionnaire*</b>				
<b>End of Interview</b>				
20	Allow the CR to influence the research agenda	<b>Thank you for your views, perspectives and stories on the themes we have explored. Is there anything else you think is important for me to understand about your experiences of becoming a teacher that we haven't yet discussed?</b>	Try to allow the CR to highlight areas/themes which are important to them.	
21	Allow the CR to ask questions about the research	<b>Do you have any questions about the themes we have discussed or about the research process in general?</b>		
22	Next research meeting	<b>We will meet next in 3-4 weeks to conduct our collaborative interpretation of this interview. I hope to have a transcript for interpretation within 10 days.</b>	Try to get a diary date for the next meeting.	

## APPENDIX 5 – COMMUNITIES OF PRACTICE - DEFINITION

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The term 'Communities of Practice' was used as an element within the Repertory Grid design and participants were asked to identify a relevant Community of Practice, to compare it with other 'role titles' selected as elements, and ultimately to rate Communities of Practice against their constructs. Below is the definition of 'Communities of Practice' shared with research participants during the Repertory Grid interviews to assist them to understand the term and select a community that was relevant to them.

*'Communities of Practice are formed by people who engage in a process of collective learning in a shared domain of human endeavour: a tribe learning to survive, a band of artists seeking new forms of expression, a group of engineers working on similar problems, a clique of pupils defining their identity in school, a network of surgeons exploring novel techniques, a gathering of first-time managers helping each other to cope. In a nutshell: Communities of Practice are groups of people who share a concern of passion for something they do and learn to do it better as they interact regularly'. Wenger (c. 2007).*

## APPENDIX 6 - QUESTIONNAIRE: LEARNING TO TEACH IN PCET

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### Ways of learning to teach in Post Compulsory Education & Training (PCET) - (Adapted from Knight et al (2006))

Notes for completion: Please allocate **20 points** in a way that reflects what you believe has been the most influential factor(s) in your professional learning and development as a teacher to date. You may distribute the 20 points in any way you wish.

Additionally, please indicate the areas where you would have valued additional professional learning. You may tick any, or all of the boxes. You may also state why or describe the specific activities you would have valued.

Ways of Learning to Teach	Points Allocated	Preferences for Additional professional Learning
Simply doing the job of teaching in a PCET environment		
The experience of having been taught as a student		
Workshops and conferences		
Conversations with & observation of colleagues in the department		
Completion of a formal, award-bearing course		
Reading about teaching and learning		
Guidance from a mentor		
Online learning		

# APPENDIX 7 - TRANSCRIPT EXTRACT

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## Extract from Participant 6 Interview 2

*Interviewer*

*Interviewee*

*So the format is the same, we'll start putting a few questions just to sort of err get some sort of 'warmers' get you talking, then we'll stop and do the rep grid, some more questions and then finish off with the trajectory target and then that's it for now.*

*Erm, so erm, obviously we have said it's been a year since we have last met, tell me about your teaching experiences of the last year, how do you summarise them, what are the stand out things for you?*

A27 Err (1) yeah well err (1) I've really enjoyed teaching, I've felt that err (2) the areas that I've kind have had as my key work on points at the beginning I feel like I've developed in these areas, erm(1).

*Ok, what were they?*

A28 Erm (1) primary because I was rather new I was focusing very much on the kind of technical side of doing this and that and the other and not really sort of really being myself in lessons.

*Yeah*

Stanza 210 -

797 Whereas now I feel I can kind of just walk in  
798 if I have to I could go in and just kind of 'cuff' a lesson,  
799 not that I would  
800 but that it would mean yeah

Stanza 211 -

801 I can sort of let my personality take over  
802 and actually just talk to the guys and have a chat with them and stuff.  
803 Whereas at the beginning  
804 I could not have done that.

*Ok, do you think that's the main thing from the last year?*

A29 Yeah that's key working point and I think I've really appreciated that as well because it means I have been able to sort of err (2) interact better with the Soldiers and sort of get more out them as well.

*Ok, erm tell me about the erm when you think back over the last year what do you think was the best lesson that you taught and what do you think is the worst one?*



Stanza 212 -

805 Ok, best one was probably one of the first COIN lessons I taught,  
806 I did it based on a err (1)  
807 we had an extra lesson that we taught on the old course  
808 that we filled a gap with which was military history

Stanza 213 -

809 I took it from the stuff I knew from that and twisted it into a new COIN lesson  
810 making it a Chairman Mao, Vietnam and Malaya err (1)  
811 yes they just sort of seemed to really enjoy it, everyone got really involved  
812 even the guys who were not as engaged with the rest of the course got really into that

Stanza 214 -

813 and got into the discussion erm (1)  
814 which was really good, good feedback from it as well.

*Ok, why do you think that was successful?*

Stanza 215 -

815 Erm (2) it was slightly different format from the other lessons we've done,  
816 erm (1) there was quite a lot of sort of interesting historical facts  
817 and historical narrative as well  
818 to underpin the sort of key learning points

Stanza 216 -

819 which there is not really much of in a lot of the other lessons,  
820 well not the ones I've taught or that I have seen other people teach  
821 so I think they really enjoyed that,  
822 so I think they were just interested in it

Stanza 217 -

823 and appreciated that it was, you know,  
824 that they could see the link between historical examples and that kind of stuff.

*Ok so what about the worst lesson?*

Stanza 218 -

825 Worst would have been one that I almost cuffed just didn't  
826 hadn't prepped for properly  
827 it was one towards the end of the week  
828 so I'd gotten lesson planning fatigue the new course erm (2)

Stanza 219 -

829 and err (1) it was you know it was one of the ones on the Warrant Officer's Course  
830 and it was the last lesson, well some of the lessons on the last day,  
831 oh hideous, it really peaks and then you have a massive anti-climax on the last day

832 and err (1), yeah I just didn't prep properly for it.

*Ok, so thinking about those two extreme examples, if you were going to try and draw some sort of conclusion to that what would the attributes to successful lesson would be or unsuccessful what would on connotation from those, what points would you take from those do you think?*

A30 We obviously preparation is massively important, understanding what is going to interest the Soldiers and actually get them err (1) engaged with the material, and one thing the preparations or failing to prepare does is that it stops you, if you are not prepared and you don't know the material well enough and you are not sure of where you are going it takes away your ability to kind of relax and be yourself or it does to me anyway, and to interact with them freely because I was too focused on what was coming next erm (1), what I could do on the next bit which wasn't working and therefore I think I became quite wooden as well.

*Year, ok, alright, so erm what do you think, a year later, and as I said before I have deliberately not gone back and read your notes but a year later what do you now think is important about teaching and learning? Not being a teacher because I am probably going to ask you that in a bit but what's important about teaching and learning?*

A31 Erm (3), it's about encouraging the, or inspiring I guess you could say the students to take control of their own learning and to direct themselves, motivate themselves erm (1) and try and almost do your job for you, in that they just kind of take over, so it's very much the facilitation and empowering them and err (1) to go away and hopefully continue with that attitude after they have left as well.

*Ok, do you think erm do you think that view that that's a view that changed over the last 12 months. I mean how do you think your views of teaching and learning have changed and if they have why do you think they have changed?*

A32 Yeah, I mean I don't think it would have changed drastically but I would not be surprised if I said something different before, because I think that I would put more emphasis on it now that I did a year ago, erm (1) partly because as I have done further stuff on the PGCE and looked into sort of different types of theory err(1) I think it's kind of it's distilled my own views on education a bit so whereas before I was probably listing lots of different attributes and lots of different things I think I've decided that that's where I, that's the sort of key theory that underpins my view of education.

*Ok, what do you think, we'll probably cover this again, but while we are kind of talking about it, what do you think has been the main sort of factor that has influenced that view? If indeed you have sort of changed to that view of teaching.*

Stanza 220 -

833 Yeah (long pause) the moment I sort of realised it was when I was doing erm (2)

834 a piece of work for my PGCE which was a curriculum design essay

835 and that was kind of a moment where all of the different theories that underpin education

836 kind of came together because of,

Stanza 221 -

837 not necessarily because it was curriculum theory

838 but because that was a point in the course which we kind of

839 covered the various different basis of the theory

840 so you could kind of see the coherent whole.

Stanza 222 -

841 The nature of that piece of work is that it was one of the first times

842 you actually really engage you brain as well.

*Yeah.*

Stanza 223 -

843 Erm (1) and it was doing something a bit different

844 so I had to really actually think about what I was doing,

845 so yeah I guess it was just that I saw the first

846 the first time I kind of put all of the different parts of sort of educational theory together.

*But that's quite theoretical piece and you are putting that together in your mind and thinking actually this is what I now think that teaching and learning is all about how easy have you found that to put that actually into practice?*

Stanza 224 -

847 (long pause) in a course that we teach its relatively short and prescribed

848 what you have to include,

849 so there is not a huge amount of scope for doing it so erm (1)

850 I'm actually at the moment really trying to focus on that for the course next week

Stanza 225 -

851 and its going to be its the subject of my action research as well

852 is trying to encourage them to try and take more responsibility on their own

853 without me over watching and, you know, not pestering them

854 but trying to sort of take that step back and let them learn from each other a bit more.

*Yeah*

Stanza 226 -

855 So I am trying to include that use of just with different activities

856 and ways of facilitating group work and things.

*But are you suggesting the course does not really allow you to, it's not really set up to do that?*

A33 Well it's a one week course and its quite, it's a compulsory promotion course so I don't think it's the best you know if you compare it to other forms of adult education they are much more err (1) I would think geared towards, some of its geared towards getting people qualifications and that's kind of what I put this one in but some of it is more toward you know learning for the sake of learning, I don't think that's this because people, you know, have this compulsion to be here.

*I mean do you find that frustrating though having having come to this kind of conclusion that that is what you think is the nub is what teaching and learning is and you can't then err you don't really have a media to do that.*

A34 Yeah, there is always scope within the course to push that side of it, erm (1) so you can still take a course that is relatively prescriptive and try and include err (1) that those kind of ideas within how you teach it. It is a little frustrating that the whole course is underpinned on a relatively behaviourist approach for education in terms of the whole concept of DSAT is that you have an observable outcome at the end.

*Yeah*

A35 Erm (2) the whole point of their pass, you know green or amber grade is that they have to be able to demonstrate competencies erm (2) but you can get to that point in a more or less behaviourist approach.

*Yeah, but DSAT is based on training which is much more of a behaviourist*

Yeah absolutely

*Thinking*

*Than education (Both speaking together)*

A36 So we are brilliant at training it's just that we try and put education in the same box.

*Yeah, yeah understood. Erm ok moving on err and this is a subtly different question. Tell me what you now think is important about being a teacher. So you said before about teaching and learning but about you know what do you think is important about being a teacher?....*

# APPENDIX 8 - COLLABORATIVE READING GRID EXTRACT

## Extract from Participant 6 Interview 2 (Analysed by participant)

<p>STANZA 1 - <i>Schools</i></p> <p>001 Schools was like erm (1)          002 your know a curve that's really low at the beginning and then suddenly it just sort of widens exponentially          003 that was like, school at first was rubbish then it got amazing,          004 you know the longer I spent there.</p>		<p><i>Positive feelings to education.</i></p>		
<p>STANZA 2 - <i>Anxiety</i></p> <p>005 Erm (1) I was doing the forces schools so I went to eight different primary schools,          006 I was dyslexic and they realised when I was in year 1          007 but nothing was ever done about it because we moved sometimes every six months,          008 so my reading and writing feel behind very quickly, erm (2)</p>		<p><i>Anxiety over earlier failures</i></p>		
<p>STANZA 3 - <i>Early failings</i></p> <p>009 my dad's dyslexic and doesn't know my date of birth          010 so I went from year 1 in reception – from reception to year 2 they thought I was really, really slow          011 so I used to do loads of extra work,          012 I couldn't read and I didn't want to read,</p>	<p><i>from Reception to year 2</i></p>	<p><i>Frustration at always failing</i></p>		
<p>STANZA 4 - <i>Frustration</i></p> <p>013 I was never made to do it,          014 I hated it,          015 it was stupid it was like,          016 it was very frustrating and I got very defensive</p>	<p><i>Incorrect - I was made to do it which was why it was stupid + why I hated it!</i></p>	<p><i>Frustration</i></p>		
<p>STANZA 5 - <i>Embarrassment</i></p> <p>017 and my mother told me a story about I had my work up on the wall          018 and I was so proud that there was something up there because it was normally my work was not good enough to get displayed,</p>		<p><i>Embarrassed + awkward.</i></p>		

<p>019 and I was really embarrassed and I would think 020 because my writing was really not very neat as everybody else's</p>				
<p>STANZA 6 - <i>Embarrassed</i> 021 and I was embarrassed that it was up there 022 so everybody could then see the deficiency.</p>				
<p>STANZA 7 - <i>Improvement</i> 023 Erm (1) it wasn't until I went to secondary school that was down the road at Dauncies, 024 I went there the whole time from 11 to 18. 025 It was a private school. 026 The school had, it would give you as much time as you wanted.</p>	<p><i>Dauntsey's</i></p>	<p><i>Beginning of a new phase of educational experience.</i></p>		
<p>STANZA 8 - <i>Personal failings.</i> 027 In my first, second and third year, I tried hard 028 but I used to talk a lot 029 so they thought I was clever but didn't try 030 rather than trying really hard and just liking to talk [laughs] erm (2)</p>	<p><i>and I didn't do very well academ- ically.</i></p>			
<p>STANZA 9 - <i>Self confidence improves</i> 031 and then I got into my third, fourth and fifth year for GCSE 032 so that's year [whisper counting] ten and eleven 033 and my teacher, English Teacher was just really happy to spend as much time with me as possible 034 so I went from being in like a lot of the bottom sets moving up,</p>		<p><i>increased feelings of self worth.</i></p>		
<p>STANZA 10 - <i>Hard work.</i> 035 and I used to, 036 if you give me the essay title and I used to write out, 037 in a week we had to write the essay so write the essay,</p>		<p><i>Rager + beer.</i></p>		

<p>hand it in 038 and then he'd like go through and remark it and I would get back again,</p> <p>STANZA 11 - 039 looking like a draft and I would rewrite the whole thing 040 sometimes restructure it, 041 it was all hand written so it was quite time consuming and erm (1) 042 I would hand it back in again</p> <p>STANZA 12 - 043 and so that way, literally in my third and fourth year, 044 yeah fourth and fifth year 045 I did so much extra work to try and prove myself because, like when I was a primary school, 046 it was embarrassing if you were not as good as everyone else</p> <p>STANZA 13 - <i>family</i> 047 and also because the school was incredibly expensive 048 and my parents were army so we had the BSA 049 but I was fully aware of quite much money it costs 050 and how lucky I was to be there, erm (1)</p> <p>STANZA 14 - 051 and so it really drove me to use everything I could and I... 052 there were a couple of members of staff that were really... 053 that went far in a way out of their role to try and help me erm (1) 054 and the same went I went into the upper school boarding house</p>	<p><i>improve.</i></p>	<p><i>fear of failure.</i></p> <p><i>High standards desired feel need to improve.</i></p> <p><i>instinct of others improve self confidence + self belief.</i></p>		
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<p>STANZA 15 - <i>Others helping.</i></p> <p>055 my housemaster was so like helpful  056 and would often like even proof read things for me if I wanted them done and things  057 I had extra English and maths lessons erm  058 because I was not sure if I was going to get good enough GCSE's in order to stay</p> <p>STANZA 16 -</p> <p>059 so they wouldn't let me do French for example  060 because they said if I was doing extra English or extra maths  061 that I could do four extra GCSE's, I couldn't do five  062 and I couldn't do a language.</p> <p>STANZA 17 - <i>Grades.</i></p> <p>063 But I ended up with five A* four As and a B  064 which was like not remotely predicted in any way.</p> <p>STANZA 18 -</p> <p>065 Because when I was at primary school we used to do weekly maths tests erm (1) in Germany  066 and if you passed then you went on to the next badge  067 and my sister who was two years younger than me we were on the same maths tests,  068 I was like, you had to get them all right to progress</p> <p>STANZA 19 - <i>Embarrassed</i></p> <p>069 and it was things like addition, subtraction, then addition and subtraction,  070 then dividing and then multiply and dividing, and I couldn't progress  071 and they so purposefully failed my sister, even though she got them right  072 so that she didn't overtake me because it would just make it worse and I would never learn,</p>		<p><i>Underconfident of meeting expectations due to previous failures.</i></p> <p><i>Proud.</i></p> <p><i>Expanding format</i></p> <p><i>lack of confidence and humiliation.</i></p>		
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<p>STANZA 20 -  073 so literally they failed [laughs] my sister three times over  074 and then I finally passed and then they passed Sarah that  week too.</p> <p>STANZA 21 - <i>Frustration</i>  075 Then luckily we moved schools [laughs] it didn't have to  happen again.  076 But, so it did mean that early school was very  frustrating,  077 very, very hard work,  078 and with no (2) progression.</p> <p>STANZA 22 - <i>Failure</i>  079 I then failed the 11+ the 13+ erm (1)  080 and prior to that selection for Duke of York Military  School  081 but I passed for Dauncy,  082 that was possibly the best thing that ever happened to  me,</p> <p>STANZA 23 - <i>Progression</i>  083 because then I had all this time and the effort I...  084 all the effort I was putting in suddenly paid off  085 and I ended up getting through erm (1)  086 choosing A levels and went to Durham and then did a  Masters in History.</p> <p>STANZA 24 - <i>Success</i>  087 So again that was just never anticipated you know  088 when I was growing up which was a really lovely result</p> <p>STANZA 25 - <i>Enjoyment</i>  089 So I love education  090 and I am fully aware when people say 'shit, I hate it'</p>	<p>Dauntsey's</p>	<p>Come to terms with early failings.</p> <p>Frustration</p> <p>Repeated failure but positive outcome</p> <p>Friend</p>		
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**Extract from Participant 6 Interview 2 (Analysed by researcher)**

<p>STANZA 1 - <i>School Gets better.</i>          001 Schools was like erm (1)          002 your know a curve that's really low at the beginning and then suddenly it just sort of widens exponentially          003 that was like, school at first was rubbish then it got amazing,          004 you know the longer I spent there.</p> <p>STANZA 2 - <i>Falling behind.</i>          005 Erm (1) I was doing the forces schools so I went to eight different primary schools,          006 I was dyslexic and they realised when I was in year 1          007 but nothing was ever done about it because we moved sometimes every six months,          008 so my reading and writing feel behind very quickly, erm (2)</p> <p>STANZA 3 - <i>Early difficulty</i>          009 my dad's dyslexic and doesn't know my date of birth          010 so I went from year 1 in reception – from reception to year 2 they thought I was really, really slow          011 so I used to do loads of extra work,          012 I couldn't read and I didn't want to read,</p> <p>STANZA 4 - <i>Feeling humiliated</i>          013 I was never made to do it,          014 I hated it,          015 it was stupid it was like,          016 it was very frustrating and I got very defensive</p> <p>STANZA 5 - <i>Embarrassed by work</i>          017 and my mother told me a story about I had my work up on the wall          018 and I was so proud that there was something up there because it was normally my work was not good enough to get displayed,</p>		<p><i>Reading this back the 'N' is putting a picture highlighting her own difficulties w/ education - will this influence her later on?</i></p>		
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<p>019 and I was really embarrassed and I would think  020 because my writing was really not very neat as  everybody else's</p>				
<p>STANZA 6 - <i>my own deficiencies</i>  021 and I was embarrassed that it was up there  022 so everybody could then see the deficiency.</p>				
<p>STANZA 7 - <i>Change at secondary school</i>  023 Erm (1) it wasn't until I went to secondary school that  was down the road at Dauncies,  024 I went there the whole time from 11 to 18.  025 It was a private school.  026 The school had, it would give you as much time as you  wanted.</p>	<p><i>Dauncies is  check spelling of  the school.</i></p>			
<p>STANZA 8 - <i>Misunderstood</i>  027 In my first, second and third year, I tried hard  028 but I used to talk a lot  029 so they thought I was clever but didn't try  030 rather than trying really hard and just liking to talk  [laughs] erm (2)</p>		<p><i>Here the narrator  is suggesting that  they were misunder-  stood. That they  had hard but that  was not appreciated!</i></p>		
<p>STANZA 9 - <i>Moving up</i>  031 and then I got into my third, fourth and fifth year for  GCSE  032 so that's year [whisper counting] ten and eleven  033 and my teacher, English Teacher was just really happy  to spend as much time with me as possible  034 so I went from being in like a lot of the bottom sets  moving up,</p>				
<p>STANZA 10 - <i>Hardwork essays</i>  035 and I used to,  036 if you give me the essay title and I used to write out,  037 in a week we had to write the essay so write the essay,</p>				

<p>hand it in 038 and then he'd like go through and remark it and I would get back again,</p> <p>STANZA 11 - <i>Restructuring work</i> 039 looking like a draft and I would rewrite the whole thing 040 sometimes restructure it, 041 it was all hand written so it was quite time consuming and erm (1) 042 I would hand it back in again</p> <p>STANZA 12 - <i>Proving myself</i> 043 and so that way, literally in my third and fourth year, 044 yeah fourth and fifth year 045 I did so much extra work to try and prove myself because, like when I was a primary school, 046 it was embarrassing if you were not as good as everyone else</p> <p>STANZA 13 - <i>Lucky to be there.</i> 047 and also because the school was incredibly expensive 048 and my parents were army so we had the BSA 049 but I was fully aware of quite much money it costs 050 and how lucky I was to be there, erm (1)</p> <p>STANZA 14 - <i>staff support.</i> 051 and so it really drove me to use everything I could and I... 052 there were a couple of members of staff that were really... 053 that went far in a way out of their role to try and help me erm (1) 054 and the same went I went into the upper school boarding house</p>				
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<p>STANZA 15 - <i>Extra work</i></p> <p>055 my housemaster was so like helpful  056 and would often like even proof read things for me if I wanted them done and things  057 I had extra English and maths lessons erm  058 because I was not sure if I was going to get good enough GCSE's in order to stay</p> <p>STANZA 16 - <i>No languages</i></p> <p>059 so they wouldn't let me do French for example  060 because they said if I was doing extra English or extra maths  061 that I could do four extra GCSE's, I couldn't do five  062 and I couldn't do a language.</p> <p>STANZA 17 - <i>Great results</i></p> <p>063 But I ended up with five A* four As and a B  064 which was like not remotely predicted in any way.</p> <p>STANZA 18 - <i>easy tests</i></p> <p>065 Because when I was at primary school we used to do weekly maths tests erm (1) in Germany  066 and if you passed then you went on to the next badge  067 and my sister who was two years younger than me we were on the same maths tests,  068 I was like, you had to get them all right to progress</p> <p>STANZA 19 - <i>Comparison with others</i></p> <p>069 and it was things like addition, subtraction, then addition and subtraction,  070 then dividing and then multiply and dividing, and I couldn't progress  071 and they so purposefully failed my sister, even though she got them right  072 so that she didn't overtake me because it would just make it worse and I would never learn,</p>				
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*These stanzas highlight the narrator's constant comparison of herself with others. She constructs painful memories, although can look back now objectively.*

<p>STANZA 20 - <i>famously failed!</i>  073 so literally they failed [laughs] my sister three times over  074 and then I finally passed and then they passed Sarah that week too.</p>				
<p>STANZA 21 - <i>Hard work &amp; no progression.</i>  075 Then luckily we moved schools [laughs] it didn't have to happen again.  076 But, so it did mean that early school was very frustrating,  077 very, very hard work,  078 and with no (2) progression.</p>				
<p>STANZA 22 - <i>Failure &amp; Success.</i>  079 I then failed the 11+ the 13+ erm (1)  080 and prior to that selection for Duke of York Military School  081 but I passed for Dauncy,  082 that was possibly the best thing that ever happened to me,</p>	<p><i>check spelling.</i></p>	<p><i>* Much of this first section into highlight the narrator's struggle as a student.</i></p>		
<p>STANZA 23 - <i>All the effort paid off.</i>  083 because then I had all this time and the effort I...  084 all the effort I was putting in suddenly paid off  085 and I ended up getting through erm (1)  086 choosing A levels and went to Durham and then did a Masters in History.</p>		<p><i>Although high achievements, she constructs this as a difficult time &amp; so can empathise with others who 'struggle' - part of identity as a teacher?</i></p>		
<p>STANZA 24 - <i>lovely result, not anticipated.</i>  087 So again that was just never anticipated you know  088 when I was growing up which was a really lovely result</p>				
<p>STANZA 25 - <i>Empathy with students.</i>  089 So I love education  090 and I am fully aware when people say 'shit, I hate it'</p>				

# APPENDIX 9 - FINAL NVIVO DATA CATEGORIES

Name	Sources	References	Created On	Created By	Modified On	Modified By
View of teaching and learning	37	76	05/02/2013 19:44	SP	17/02/2013 12:27	SP
Trait-based view of the Teacher	5	76	16/01/2013 20:01	SP	06/02/2013 19:43	SP
Skills-based view of the Teacher	3	23	05/02/2013 18:54	SP	06/02/2013 19:41	SP
Responsibility lies with Teacher	3	28	05/02/2013 18:58	SP	06/02/2013 19:41	SP
Responsibility lies with Student	3	11	05/02/2013 19:18	SP	06/02/2013 19:41	SP
Participation Metaphor	2	7	05/02/2013 19:40	SP	06/02/2013 19:34	SP
Consistent view of Teaching	4	37	03/02/2013 18:05	SP	06/02/2013 19:43	SP
Change in view about Teaching & Learning	5	56	03/02/2013 18:04	SP	06/02/2013 19:41	SP
Acquisition Metaphor	3	14	05/02/2013 19:19	SP	06/02/2013 19:19	SP
Professional Development and Identity	92	302	05/02/2013 20:30	SP	17/02/2013 12:27	SP
Work-Life Balance	2	4	03/02/2013 17:27	SP	06/02/2013 18:36	SP
Trajectory	4	12	03/02/2013 17:31	SP	06/02/2013 19:36	SP
Metaphor and Self-description	5	22	03/02/2013 18:31	SP	06/02/2013 19:33	SP
Lack of LPP	2	7	03/02/2013 17:36	SP	05/02/2013 19:42	SP
Development and Identity	5	35	03/02/2013 17:45	SP	06/02/2013 19:33	SP
Cover Story	3	12	03/02/2013 19:07	SP	06/02/2013 19:12	SP
Methodology	78	225	05/02/2013 20:32	SP	17/02/2013 12:21	SP
Influences	101	348	05/02/2013 19:41	SP	17/02/2013 12:11	SP
Construct Theory and Lit Review	90	347	05/02/2013 20:32	SP	17/02/2013 12:30	SP

Figure 52 - NVIVO Screen Capture 1

The screen capture shown at Figure 52 shows the data categories ‘view of teaching and learning’ and professional development and identity’ with their dependent sub-categories. The ‘References’ column show the number of references to each category/sub-category.

Name	Sources	References	Created On	Created By	Modified On	Modified By
View of teaching and learning	37	76	05/02/2013 19:44	SP	17/02/2013 12:27	SP
Professional Development and Identity	92	302	05/02/2013 20:30	SP	17/02/2013 12:27	SP
Methodology	78	225	05/02/2013 20:32	SP	17/02/2013 12:21	SP
Influences	101	348	05/02/2013 19:41	SP	17/02/2013 12:11	SP
Influence of Wider Experiences	1	8	06/02/2013 18:48	SP	06/02/2013 19:44	SP
Influence of Teaching Practice	5	35	05/02/2013 19:41	SP	06/02/2013 19:44	SP
Influence of feedback	3	18	05/02/2013 19:27	SP	06/02/2013 19:36	SP
Influence of Reflection	5	16	05/02/2013 20:15	SP	06/02/2013 19:31	SP
Influence of PGCE	5	75	16/01/2013 19:55	SP	06/02/2013 19:44	SP
Bifurcation of PGCE	3	13	16/01/2013 19:56	SP	05/02/2013 19:42	SP
Influence of CoP (Possible and Provisional Selves)	5	80	16/01/2013 19:58	SP	06/02/2013 19:40	SP
Role Modelling	5	45	16/01/2013 19:53	SP	06/02/2013 19:08	SP
Apprenticeship of Observation	1	1	05/02/2013 20:39	SP	06/02/2013 18:56	SP
Influence of Subject Specialism	2	5	03/02/2013 18:42	SP	06/02/2013 19:14	SP
Influence of Previous Teachers (Apprenticeship of Observatio	8	47	07/09/2012 12:38	SP	06/02/2013 19:44	SP
Influence of being a Student (apprenticeship of observation)	5	70	03/02/2013 17:23	SP	06/02/2013 19:44	SP
Construct Theory and Lit Review	90	347	05/02/2013 20:32	SP	17/02/2013 12:30	SP

Figure 53 - NVIVO Screen Capture 2

The screen capture shown at Figure 53 shows the data categories 'influences' with the dependent sub-categories of 'wider experiences', teaching practice', 'reflection', 'PGCE' 'community of practice (CoP)' and 'apprenticeship of observation'.

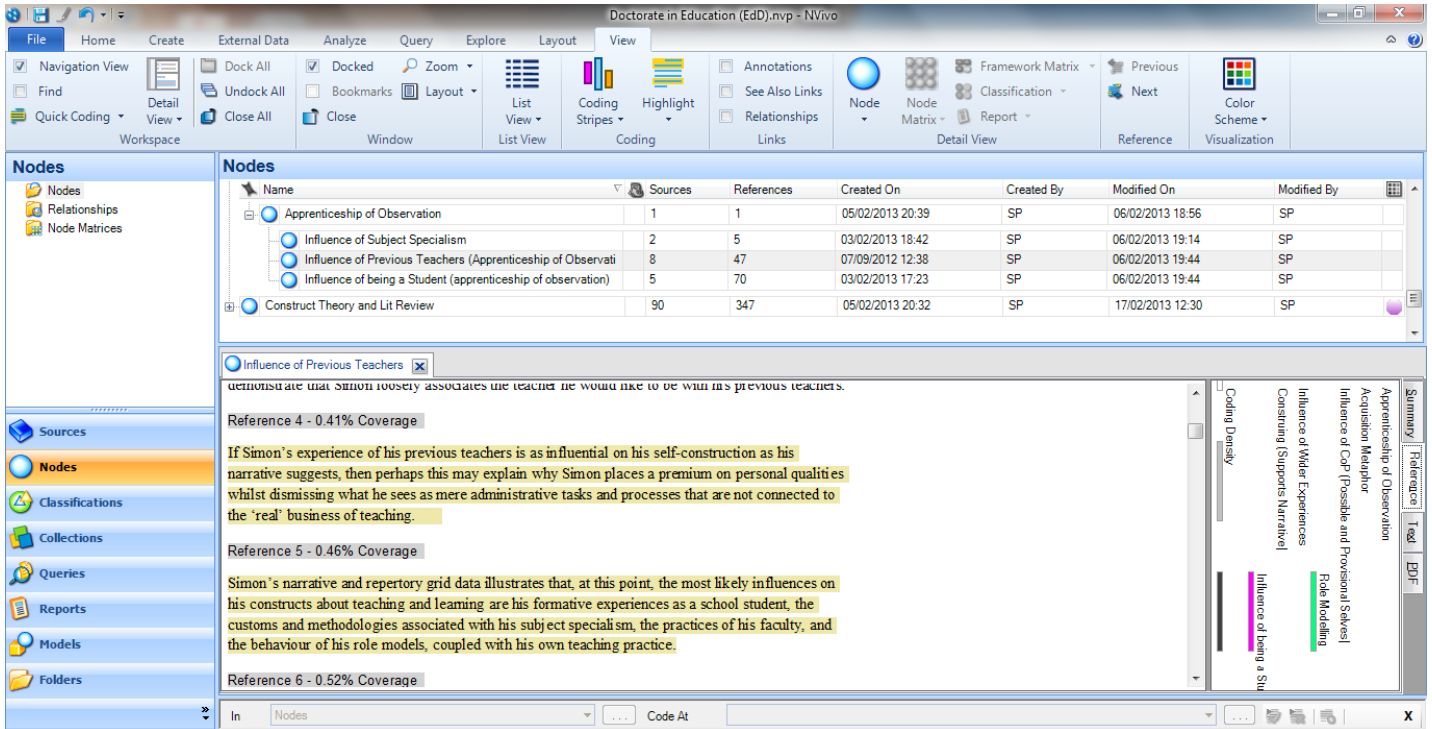


Figure 54 - NVIVO Screen Capture 3

The screen capture at Figure 54 shows how NVIVO was used to code the research data by, in this example, linking narrative elements to data categories. The bottom right pane of the NVIVO screen shows the 'coding stripes' which indicates where narrative elements have been linked to data categories and sub-categories. The coding density bar shows when a narrative element has been linked to a number of data categories.