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**Three stakeholders' perceptions of effective practices in
observing experienced teachers and peers in a UK initial
teacher training course: degree of agreement, attitudes to an
innovation in the course and changes to observation practices**

By

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Contents

List of tables	6
Acknowledgements.....	8
DECLARATION.....	9
Abstract:.....	10
List of abbreviations.....	11
1. Introduction	12
1.1 Research topic overview	12
1.2 Personal Motivation for the study	13
1.3 Importance of the study and its potential value	14
1.4 Explanation and reasons for the research questions.....	14
1.5 Rationale of the methodology	17
1.6 Theoretical orientations.....	17
1.7 The research site.....	19
1.8 Matters beyond the scope of this study	19
1.9 General overview of the chapters	20
2. Learning to teach	21
2.1 Introduction	21
2.2 The nature of learning to teach	23
2.3 External and internal factors in learning to teach:	27
2.3.1 External factors in learning to teach.....	28
2.3.2 The school placement	28
2.3.3 The mentoring approach	29
2.4 Internal factors in learning to teach	33
2.4.1 The cognitive dimension of learning to teach.....	34
2.4.2 Student teachers' personal theories and beliefs	34
2.4.3 Teacher knowledge and expertise:	37
2.4.4 The affective dimension of learning to teach	40
2.5 Learning theories	44
2.5.1 Behaviourist theories	44
2.5.2 Cognitive theories	45
2.5.3 Constructivist theories	46
2.5.4 Social learning theories.....	47
2.6 Models of student teachers' stages of development	51
2.7 Conclusion.....	55

3. Observing experienced teachers and peers in Initial teacher training.....	57
3.1 Introduction	57
3.2 Types and purposes of classroom observation.....	59
3.3 The importance and nature of Pre-service teachers' observation of experienced teachers	62
3.4 Early field experiences EFEs (school placements).....	67
3.4.1 Observation approaches in school placements/ EFEs	69
3.4.2 Structured and unstructured approaches to observation	70
3.4.3 Feedback discussions	75
3.4.4 Linking theory to practice:	76
3.4.5 Reflection in EFEs:	77
3.4.6 Observation tasks.....	81
3.5 Peer Observation	82
3.6 Conclusion.....	87
4. Methodology.....	89
4.1 Introduction	89
4.2 Overview of the research design	90
4.3 A pragmatic paradigm.....	91
4.4 Research methods	97
4.4.1 Interviews:.....	98
4.4.2 Interview procedures	101
4.4.3 Protocols of transcription	102
4.4.4 Questionnaire	103
4.4.5 Questionnaire procedures	104
4.4.6 Piloting the questionnaire and interviews	105
4.4.7 Document analysis	106
4.5 Mixed-methods approaches	107
4.5.1 Triangulation	110
4.5.2 Some challenges in using mixed methods	111
4.6 Validity	112
4.6.1 Threats to and strategies for validity	114
4.7 Reliability.....	118
4.7.1 Threats to and strategies for improving reliability	119
4.8 Sampling.....	121
4.9 Data analysis	123

4.10	Content analysis.....	124
4.10.1	Questionnaire analysis.....	126
4.11	Ethical issues.....	127
4.12	Conclusion.....	129
5.	Analysis and discussion.....	131
5.1	Findings related to the main research question.....	131
5.2	Introduction.....	131
5.3	Techniques employed during observation.....	132
5.3.1	Structure.....	133
5.3.2	Focus.....	143
5.3.3	Focusing on pupils.....	148
5.3.4	Tracking pupils.....	152
5.3.5	Observing other subjects.....	154
5.3.6	Modelling.....	160
5.3.7	Participation.....	166
5.3.8	Using technology.....	173
5.3.9	Observing a variety of good teaching styles.....	176
5.3.10	Writing notes.....	179
5.4	Pre-observation techniques.....	182
5.4.1	Having a pre-lesson discussion.....	182
5.4.2	Having the lesson plan beforehand.....	184
5.5	Post-observation techniques.....	185
5.5.1	Having a post-lesson discussion.....	185
5.5.2	Linking theory to practice.....	189
5.5.3	Using blogs and journals.....	192
5.6	The institutional aspect.....	193
5.6.1	Training to observe.....	193
5.6.2	Observation tasks.....	197
5.6.3	Formality of observation.....	201
5.6.4	Doing more observations and the best timing for this.....	203
5.7	Personal qualities.....	206
5.7.1	Being reflective.....	206
5.7.2	Having some teaching experience.....	210
5.7.3	Being independent, proactive and professional.....	211
5.8	Findings related to the secondary research questions.....	212

5.9	Introduction	212
5.10	Student teachers' preference for observing experienced teachers	213
5.11	High agreement among the participants' perceptions.....	220
5.12	Changes to observation techniques.....	223
5.12.1	Past changes in observation	223
5.12.2	Future plans for change in observation and observer satisfaction	226
5.13	Conclusion.....	227
6.	Conclusion.....	229
6.1	Introduction	229
6.2	Empirical findings.....	230
6.2.1	Perceptions of student teachers' effective observation practices of experienced teachers and peers.....	231
6.2.2	Student teachers' perceptions of effectiveness of observing experienced teachers in relation to observing peers	235
6.2.3	Extent of agreement among participants' perceptions of effective observation practices	235
6.2.4	Changes in student teachers' views of effective observation techniques throughout the course	236
6.3	Theoretical and policy implications	237
6.3.1	Theoretical implications.....	237
6.3.2	Policy and practice recommendations.....	241
6.4	Limitations.....	250
6.5	Further research	252
6.6	Conclusion.....	252
	References:.....	254
	Appendices:	272
	Appendix 1: Roles of school mentors and university tutors in the PGCE	272
	Appendix 2 Interview questions (student teachers' first round):.....	274
	Appendix 3 Student teachers' second round questions:	275
	Appendix 4: Interview questions (university tutors and schools mentors:	275
	Appendix 5: The questionnaire	277
	Appendix 6: A sample analysis table.....	281
	Appendix 7: Tables.....	282

List of tables

	Title	Page
Table 1	Overview of the research design	282
Table 2	Helpfulness of observation checklists and schedules	283
Table 3	observing experienced teachers in the PGCE could be improved by observing teachers who are skilled in an aspect of teaching I need to improve	283
Table 4	observing peers in the PGCE could be improved by observing peers who are skilled in an aspect of teaching I need to improve	284
Table 5	observing experienced teachers in the PGCE could be improved by observing teachers in different subject departments	284
Table 6	observing peers in the PGCE could be improved by observing peers in different subject departments	285
Table 7	I play a part in the lesson and interact with the pupils when observing an experienced teacher	285
Table 8	I play a part in the lesson and interact with the pupils when observing a peer	286
Table 9	observing experienced teachers in the PGCE could be improved by using live or recorded video of their lessons for discussion	287
Table 10	helpfulness of pre-observation discussions with the experienced teacher	287
Table 11	helpfulness of post-observation discussions with the experienced teacher you have observed	288
Table 12	helpfulness of post-lesson discussion of a lesson you helped to plan	288
Table 13	helpfulness of training sessions in how to observe	289
Table 14	observing experienced teachers in the PGCE could be improved by further training in observation techniques	289
Table 15	observing peers in the PGCE could be improved by further training in observation techniques	290
Table 16	helpfulness of observing a lesson you helped to plan as part of a collaborative paired placement	290
Table 17	helpfulness of observing experienced teachers	291
Table 18	observing experienced teachers has made me make changes to the way I teach	291
Table 19	observing peers has made me make changes to the way I teach	292
Table 20	observing experienced teachers helps me understand classroom dynamics	292

	better	
Table 21	observing peers helps me understand classroom dynamics better	293
Table 22	observing experienced teachers helps me understand individual pupils better	293
Table 23	observing peers helps me understand individual pupils better	294
Table 24	observing experienced teachers has given me useful teaching strategies to adopt	294
Table 25	observing peers has given me useful teaching strategies to adopt	295
Table 26	observing experienced teachers has given me new ideas to consider	295
Table 27	observing peers has given me new ideas to consider	296
Table 28	I do not know what to look for when I observe experienced teachers	296
Table 29	I do not know what to look for when I observe peers	297
Table 30	observing experienced teachers is not helpful	297
Table 31	observing peers is not helpful	298
Table 32	Degree of agreement among the participant groups	298-300
Table 33	Student teachers' genders and subject specialisms	301
Table 34	University tutors' genders and subject specialisms	301
Table 35	School mentors' genders and subject specialisms	301

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DECLARATION

This thesis is my own work, except where explicitly stated in the text, and has not been submitted for a degree at another university.

Abstract:

This exploratory mixed methods study focuses on perceptions of three key stakeholder groups in a UK initial teacher training (ITT) course regarding how to observe experienced teachers and peers effectively to learn to teach. It set out to investigate perceived effective observation practices in the academic year 2012-2013 and utilised 40 semi-structured interviews of student teachers, university tutors and school mentors as its primary method and a questionnaire (n=89) and document analysis of the course handbook as its secondary ones. The adopted theoretical perspective for analysis included the social leaning theories of Legitimate Peripheral Participation and Communities of Practice. The research has identified many observation techniques, institutional requirements and personal qualities perceived to be conducive to producing effective observation practices in this course. The secondary questions investigated the degree of agreement among the participants' perceptions, student teachers' perceptions of the innovation of peer observation, changes in their observation practices during the course and future plans for changing their observations. The results revealed a high degree of agreement among the participants, positive attitude toward peer observation despite a slight preference for observing experienced teachers and few changes to their observation practices. This research attempts to contribute to the literature, which is lacking in the UK, regarding this topic and its findings should prove useful for identifying effective observation practices for future ITT courses.

List of abbreviations

BT	a beginning teacher
CoP:	Community of practice
CPD:	continuing professional development
CPP:	Collaborative Paired Placement
EFE:	Early Field Experience
HE:	Higher Education
ERIC:	Education Resources Information Center
ITE:	initial teacher education
ITT:	initial teacher training
K-12:	Kindergarten through 12th grade
LPP:	Legitimate Peripheral Participation
MA:	Master of Arts
MFL:	Modern Foreign Languages
Ofsted	Office for Standards in Education
PDP	Professional Development Profile
PGCE	Post-graduate Certificate in Education
PT	a pre-service teacher
QTS	Qualified Teacher Status
SEN	special educational needs

1. Introduction

1.1 Research topic overview

Initial teacher training is an important stage in teachers' journey of learning to teach, playing a vital role in their preparation to undertake this demanding job. Ideally, it is an opportunity when trainees, by being exposed to the skills and performance of expert teachers, are propelled in the right direction and given a head start. In many initial teacher training courses across the globe, student teachers' field classroom observations of practising teachers are a pivotal practice. However, although student teachers' observations of other teachers can be a potent technique in ITT, its potential can be wasted by factors such as not knowing what to look for and lack of focus. This is particularly the case when student teachers observe others in a trial-and-error fashion and when insufficient guidance and training are provided for student teachers.

The main aim of this study is to identify perceptions of effective observation practices in an ITT course in a distinguished UK university from the perspectives of different stakeholder groups: student teachers, university tutors and school mentors. The notion of effective practices is far from simple as both learning to teach and observation are both multifaceted, complex phenomena which can take many forms and there are as many good or effective practices within these as there are good and effective teachers and observers. For the purposes of this study, the notion of an effective practice is problematic but normally involves pupils' achievement of lesson learning objectives while engaging them with the learning process. An effective observation practice is conceived of as one which enables observers to make sense of and improve their understanding of the classroom incidents in a way which provides them with the opportunity to transfer or modify what they deemed as effective teaching practices in their own classes when they teach. These perceptions of effective observation practices

will be triangulated in chapter 5 not only to provide recommended observation practices for other student teachers to learn to teach in a more effective way, but also to illuminate participants' notions of the effectiveness of the innovation of peer observation in the course.

1.2 Personal Motivation for the study

My interest in this topic stems from my experience of observing teachers as a trainee in a language teaching institute in Syria between 2006 and 2007. As part of preparation for teaching, I underwent two short, informal teacher training courses: one prior to teaching and one during this. The training involved workshops, seminars, one peer teaching, one micro teaching experience and observing experienced teachers. One of my two teacher trainers seemed to assume that by observing good practice, my teaching would automatically improve since I was struggling to adopt a more communicative teaching style. Although I appreciated the value of observation, I did not know exactly what to look for nor was I able to reflect deeply on what I watched to benefit my teaching. It seems that this trainer failed to notice that observing other teachers is a multifaceted, complex skill which does not necessarily happen automatically (Young and Bender-Slack, 2011: 333-334) for all teachers and she did not seem to recognise the benefit of specific training and guidance for observation, which my course lacked. My awareness of this gap in knowledge led me to attempt to identify perceived effective observation practices in a distinguished UK ITT course to suggest them to other student teachers who are struggling to make use of their observations sufficiently.

1.3 Importance of the study and its potential value

The literature on both observation and learning to teach highlights the importance of observing others in becoming a teacher (Jenkins et al., 2005: 2; Lasagabaster and Sierra, 2011: 450; Tomlinson, 1995: 47; Wajnryb, 1992: 1), the variety of its types and purposes (Wragg, 1999: 8) and its multifaceted, complex nature since it requires sub-skills such as ‘perceiving, interpreting, assessing, and reacting’ which normally take place concurrently (Malderez, 2003: 179). However, despite recognition of the importance of considering student teachers’ beliefs and views (Lasagabaster and Sierra, 2011: 449), there is a lack of literature on how the process of observation can become effective for student teachers’ professional training by considering and building on their beliefs and perceptions. By familiarising future student teachers with perceived effective observation practices, this study maintains that their observations will likely become more effective. Therefore, it represents a small step towards valuing student teachers’ perspectives more, which are triangulated with other sources, regarding how to engage in classroom observations effectively as a learning-to-teach opportunity.

1.4 Explanation and reasons for the research questions

The overarching research question aims to discover student teachers’ perceptions of effective observation practices since their beliefs and theories are a very important factor in determining their professional growth and success as potential teachers. For example, Le Cornu and Collins contend that student teachers’ perceptions both of themselves and the school culture have an impact on how they teach (2004: 30) and Twiselton points out the role of one's values and beliefs in teaching (2007: 500). Since student teachers at the inception of their career are equipped with a wide range of ideas acquired from multiple sources, such presumptions ‘will determine their priorities

and influence what they consider they will need to learn' (Hagger *et al.*, 1993: 88).

However, if student teachers are required to observe and if they view it as ineffective or unimportant to their learning to teach, this may result in discrepancies between their theories, considering observation unimportant, and what they actually do, being required to observe. This is reminiscent of the distinction between 'theories-in-action', what is usually applied in practice, and 'attributed beliefs', (Argyris and Schön in Hagger and McIntyre, 2006: 46), theories which are publicly embraced but not necessarily applied. However, the co-presence of two incompatible kinds of theory is 'dysfunctional' (Hagger and McIntyre, 2006).

Another important benefit of focusing on perceptions is that professional development should start from and build on what student teachers already think and believe rather than ignore or take for granted their ideas and views regarding their teacher training and effective classroom observations. For instance, Monte-Sano and Cochran propose that teacher education courses 'must build off of candidates' incoming ideas about teaching the subject' to students' (Monte-Sano and Cochran, 2009: 131). Additionally, student teachers' negative 'memories' of their school experience as learners and sometimes of their teachers, content misunderstandings and 'attitude problems' require them to 'unlearn' and 'relearn' part of their content knowledge (Ball in Brown and McNamara, 2005: 59). Therefore, student teachers' 'pre-program beliefs' need to be made manifest in order to bring about changes in actions (Brown and McNamara, 2005: 60).

The secondary questions stemmed from the main research question and were based on it as an attempt to enhance it and make the findings of this study more detailed and nuanced. One question arose as a response to the opportunity to exploit the introduction of a new type of observation, a form of peer observation and to compare and contrast perceptions of this with those of its established counterpart, observing experienced

teachers and mentors. Peer observation involved student teachers in the co-preparation of lessons, discussions and observation of those lessons. This research not only aimed to see if perceptions of this practice were more positive than those of observing experienced teachers but also to see if participants deemed this form of peer observation as a worthwhile addition to the course in relation to improving their observation practices.

Another question was designed to compare and contrast the stakeholder groups' perceptions of effective observation practices. This question was devised not only to allow the emergence of as many themes, findings and recommendations as possible in proportion to the size and scope of the study and to enhance its validity, but also to discover if there were inconsistencies in perceptions among the groups. A discrepancy in views among school mentors and student teachers for example can be considered as a negative phenomenon particularly if student teachers engage in observation practices not because they are convinced about their efficacy, but because they are required to do so to pass the course.

The last secondary question was designed to investigate the development of student teachers' perceptions of effective observation practices and future plans for improving their observations since the ITT course is congested with a great deal of theoretical and practical activities that may change student teachers' perceptions very quickly. In short, the main research question and the sub questions were:

1. What are student teachers', university tutors' and school mentors' perceptions of effective practices in observing experienced teachers and peers?
 - a. Which type of observation do participants prefer (observing experienced teachers or peers)?

- b. What is the degree of agreement among participants regarding these perceptions? And
- c. Do student teachers' perceptions change throughout the course and do they have plans for change?

1.5 Rationale of the methodology

This study adopted a mixed-methods approach and involved three research methods: semi-structured interviews, a questionnaire and document analysis. One reason for utilising a mixed-methods approach was to triangulate the quantitative data from the structured questionnaire with the data from the qualitative interviews in order to allow unexpected findings to be explored and to check the validity of the findings from different research instruments. The questionnaire questions were on a surface level and more conducive to comparing perceptions of peer observation and observation of experienced teachers. The interview questions complemented the questionnaire by not only asking participants new questions based on their answers such as focusing on pupils and tracking them, but also by exploring questionnaire questions more deeply. A third method was a document analysis, which involved analysing the general handbook of the course in order to compare the official guidance regarding observation and learning to teach with participants' perceptions of effective observation practices.

1.6 Theoretical orientations

Two theoretical perspectives were adopted in this study: a pragmatic perspective for the methodology and two social learning theories for data analysis and discussion. A pragmatic paradigm was adopted because the study deals with 'a social issue or problem' (Delanty, 2005: 101); it addresses a lack of research about perceived effective

practices, and it seeks ‘practical purposes in the world’ (Benton and Craib, 2001: 88) by identifying recommendations based on perceived effective observation practices.

Another reason for adopting pragmatism is that it does not subscribe to any ‘system of philosophy and reality’ or type of methods (Creswell, 2009: 10-11), which makes it compatible with a mixed-methods approach.

The perspective for data analysis is based on legitimate peripheral participation (LPP) (Lave and Wenger, 1991:40) and communities of practice (CoP) (Lave and Wenger, 1991:98). LPP signifies that learning is achieved through complete participation in the sociocultural activities of a community (ibid.: 29). Peripherality indicates ‘gaining access to sources of understanding’ by gradually increasing participation in the practices of the other members of one’s own community (ibid.: 37). Instead of imitating other people’s practices or having knowledge transmitted to the learner, learning takes the form of increasing movement towards the centre of a surrounding community (ibid.: 100). CoP is a ‘set of relations among persons, activity, and world, over time’ (ibid. 98). It is an innate factor in acquiring knowledge (Lave and Wenger, 1991:98) and an interpretive tool for making sense of the world. LPP and CoP are compatible with the main topic in this study as student teachers not only belong to the community of teachers, but also they learn to teach through gradually increasing participation in the activities of the course, particularly with other more experienced members (school teachers and mentors). Such activities include teaching other teachers’ classes, negotiating access to experienced teachers’ classes, observing classes and discussing what they observed with other teachers. Therefore, student teachers move slowly but steadily from being passive newcomers in the school culture who may rely on direct imitation of experienced teachers’ personas and techniques, to becoming more active, participant members in the school with distinct teaching identities who adapt teaching techniques to suit their own purposes.

1.7 The research site

The research site was a secondary ITT course in a distinguished UK university. This site was chosen for two reasons: first, the ITT course provided by this university was distinguished according to Office for Standards in Education (Ofsted), which is an acknowledged indication of the quality of teaching and training in the UK. The second reason, which was logistical, was that the distance to the research site was sufficiently close to the researcher to conduct interviews with student teachers, mentors and tutors as well as to administer the questionnaire. Additionally, the researcher's supervisor, who was an insider in the university, facilitated contacting the participants and the required arrangements for the questionnaire and the interviews.

1.8 Matters beyond the scope of this study

Two potentially important matters could not be covered in this study. Due to ethical considerations, a direct method such as observation of student teachers was not possible. Although in an earlier version of the methodology student teachers were contacted at the beginning of the course to request their permission to be observed, they did not agree, probably due to stress and pressure at this early stage in the course.

The second matter was covering all of the curriculum subjects studied by the student teachers. That is, although the main research question aimed to identify student teachers' perceptions of effective observation practices, it did not attempt to cover the differences between subject courses in terms of what was perceived as effective for each of them. Indeed, the number of student teacher interviews was neither sufficient nor sufficiently representative of each subject to make valid comparisons of perceived effective observation practices in each subject. In addition, the number of subjects, seven in total, made it impossible to cover comprehensively. Therefore, the literature

review chapters do not go into subject-specific detail for the most part when discussing learning to teach and observation. Rather, they focus on general patterns and themes regarding how student teachers learn to teach and how they can observe other teachers effectively.

1.9 General overview of the chapters

This thesis is composed of six chapters. In the introduction, the topic of the research has been introduced as well as general issues related to the research. The literature review consists of two chapters: learning to teach and student teachers' observation of other teachers since it is difficult to understand student teachers' observations in ITT without reference to its ultimate goal, learning to teach. Chapter 4 includes a rationale for adopting a pragmatic paradigm to data collection, a detailed description of how the research methods developed, measures taken to increase the validity and reliability of the study and an explanation of the data analysis method, content analysis. The findings of the main research question are presented and discussed in Chapter 5. In Chapter 6, the conclusion, relationships among the empirical findings are drawn out, the significance of the study is elucidated and limitations, as well as suggestions for further research are discussed.

2. Learning to teach

2.1 Introduction

The literature review of this thesis addresses both learning to teach and student teachers' observations of experienced teachers and peers in secondary schools, albeit in two separate chapters, to provide a more detailed overview of these wide areas of research. Learning to teach is a core element in this study as it is the main goal of secondary ITT courses worldwide and their classroom observation component.

Although all of the ITT course subjects in the data collection phase of this study made use of observation, this study will provide a general review of important learning to teach matters rather than adopt a subject-specific focus (see tables 33, 34 and 35 for the subjects of the participants). Different subjects play an important role in how student teachers form their views of learning to teach due to their distinctive natures. Whereas the teaching of maths may focus on logical processes, drama will have a stronger affective dimension achieved through utilisation of role-play and interaction. However, even if each subject has its unique pedagogical characteristics and strategies, some could be borrowed and adapted to innovate and improve the quality of teaching other subjects. To avoid stereotyping subject teaching, I went for a general approach to learn to teach rather than a subject-specific one. This decision was reinforced by the participants' very positive views of the importance of observing other subjects through which they could share knowledge, take ideas to teach from other subjects and expand their own horizons. Therefore, the literature review deals generally with learning to teach and identifies common issues and practices in secondary schools. Additionally, it explains the search strategies utilised to investigate learning to teach, provides some beneficial definitions of learning to teach, explores its nature and essential components,

discusses some theories of how student teachers learn and considers some models of how student teachers learn.

Several literature searches were conducted which incorporated books and articles and specific authors throughout the duration of my thesis (between 2011 and 2015) to keep the review up-to-date. The author search included UK writers such as McIntyre, Tomlinson, Hagger, Maynard, Furlong and Calderhead. The keywords used to search for relevant books and articles were 'learning to teach' and 'learn to teach' in conjunction with secondary education. The book searches revealed some interesting findings; the first is the preponderance of both subject-specific books on learning to teach (See Kennewel et al., 2003, Kempe and Nicholson, 2007, Haydn, 2008, Davison and Dowson, 2009, Pachler et al., 2009, Lambert and Balderstone, 2010 and Johnston-Wilder et al., 2010) and of texts addressed to student teachers themselves. Since this study is general rather than subject-specific such books with subject-specific findings were not covered. However, some of the texts offering guidance for student teachers to learn to teach were consulted because they relied on research findings and they provide a general overview of the field. The second finding in the literature search was the disconnected and inconsistent nature of the literature which can be exemplified by Brown and McNamara's criticism of this research in the UK not only as 'fragmentary' compared to the US, but also as 'generic' and consisting mainly of single case-studies (Brown and McNamara, 2011: 34). They attribute the lack of 'direction of travel of the findings of the research themes' to the dearth of 'large-scale multi-site research programmes' (Brown and McNamara, 2011: 48). Likewise, Rogers argues that not only is there a lack of coherence in how student teachers' preparation and learning experiences are depicted but also the 'research base' regarding an 'understanding of such experiences' is inadequate so far (2011: 249).

The searches for articles limited the duration to the period between 2000 and 2015 and limited the results to only academic, peer reviewed articles not only to rely on up-to-date sources in the massive literature of learning to teach but also on more credible articles from widely-acknowledged journals. The searches for relevant journal articles revealed a huge number of results, both UK and international, which were dominated by US literature. Despite the differences in context between the UK literature and the international one, empirical findings from other parts of the world will most likely enrich this study and they should be acknowledged and tested to discover if they are applicable here.

2.2 The nature of learning to teach

Learning in educational contexts can be defined as ‘changing the ways in which learners understand, or experience, or conceptualise the world around them’ in which ‘the world around them includes the concepts and methods that are characteristic of the field of learning in which they are studying’ (Ramsden, 2003: 6). This is unlikely to be the same as transferring information into students’ heads or encouraging the reproduction of school mentors’ practices. Tomlinson defines learning as ‘*the acquisition of capacities or tendencies through action or experience*’, in which such capacities usually include ‘concepts, knowledge/understanding and skills’, while the ‘tendencies’ can subsume ‘attitudes, values, ways of behaving’ (1995: 9). According to this definition, it seems that learning is a multi-component process which not only subsumes cognitive constructs such as concepts and knowledge but also affective ones such as attitudes (See sections 2.4.1 and 2.4.4). The role of action and experience is pivotal in learning to teach in this definition. In this sense, observing other teachers provides good examples of how teaching can be done. Whereas Ramsden (2003) deems

learning primarily as a process of conceptual change, Tomlinson (1995) views it as a matter of acquisition of concepts. Alexander defines learning to teach as ‘a continual process of hypothesis-testing framed by detailed analysis of the values and practical constraints fundamental to teaching’ (Alexander in McIntyre, 1993: 43). This definition implies that learning to teach is a life-long reflective practice which involves theorising and trial and error and which does not stop at the end of an ITT course. Although these definitions do not necessarily contradict each other, they represent different lenses and perspectives and strengthen the notion that there is no one correct way of conceptualising learning to teach.

Although a popular way of conceptualising learning to teach in recent literature is viewing it as a process of transformation, this concept conveys different meanings by different authors. Connell argues that theories based on Vygotsky’s writings conceptualise learning to teach as a continuously developing group of relationships and ‘a process of transformation of participation’ (Connell, 2010: 87) in ‘socially produced, culturally constructed activities’, which influence student teachers’ ‘identities’ and their conceptions of how to be a learner and a teacher (Connell, 2010: 91). Fox and Wilson view learning to teach as a transformative rather than acquisitive process of ‘knowledge and skills’ (Fox and Wilson, 2015: 94) since such transformations, which can be exemplified by feeling like a teacher or developing a teacher identity, are complicated, exacting phenomena and therefore they require support (Fox and Wilson, 2015: 94). However, Stevens et al, who studied Post-graduate Certificate in Education (PGCE) courses in England in five different university departments of education in the academic year of 2004-2005, view transformation in learning to teach in a different sense. They address how student teachers transform what they learn in their undergraduate courses into how they teach in their PGCE, which is an under-researched topic in England (Stevens et al., 2006: 97). These transformations signify ‘changes in perspectives’ when

student teachers view the subject they teach from their pupils' perspectives in addition to their own as well as the process of combining both perspectives (Stevens et al., 2006: 98). The most salient transformation is student teachers' consciousness that to teach well they need to view themselves as learners, which is facilitated by 'reflexivity' (Stevens et al., 2006: 97).

Since defining learning to teach is challenging given the magnitude and conceptual divergence in the literature, exploring its main prerequisites can shed further light on its nature. Effective teaching requires 'academically able' people, with a good understanding of the subject(s) they teach, who are concerned about pupils' 'well-being' and who positively impact and improve children's 'academic' attainment and learning of society (Arends, 1994: 8-9). It also necessitates four 'higher-level' characteristics: 'a knowledge base' of teaching and learning, a range of best teaching techniques, a 'reflective, collegial, problem solving' mentality and a 'lifelong' approach to learning to teach and to improve learning and schools (Arends, 1994: 8-9). Interestingly, being lifelong reflective learners is compatible with Alexander's definition of learning to teach cited above. There are several requirements for effective teaching according to Eilam and Poyas: knowing how children acquire knowledge, knowledge of the subject matter, being able to portray the subject knowledge in a way that enhances pupils' learning and continuous reflection on their actions and how to develop them (2009: 88). Both Arends and Eilam and Poyas regard knowledge of the subject matter as an important requirement of teaching (see section 2.4.3).

Since student teachers differ in terms of their learning preferences and needs, the issue of what is effective becomes less important than what is effective at any given point for a particular trainee teacher (Oosterheert et al., 2002: 42). According to Mutton et al., not only do student teachers take different paths in learning to teach but also their conceptions of what experience means to them are different depending on the school in

which they are placed (2010: 86). Therefore, teacher educators need to know ‘how student teachers differ in using their learning environment, and how these differences may be more or less beneficial to learning to teach’ (Oosterheert et al., 2002: 42). In other words, there is no one-size-fits-all way of learning which is ideal for everyone (Marton, 2007: 23) and there is no single way of teaching because of the uniqueness of children, teachers and their contexts (Capel et al., 2009: 1). This highlights the importance of the social perspective on learning to teach, particularly the concepts of legitimate peripheral participation and communities of practice which are adopted to explain the findings from this study (see section 2.5.4).

Because of the highly contextual nature of teaching, learning to teach can be conceived of as a complex task which encompasses innumerable good teaching styles (Green and Leask, 2009: 10). One reason why learning to teach is complex is that it requires much ‘time, practice, and experience’ (Campbell and Brummett in Ambrosetti, 2010:117) to excel in it. For example, Rogers contends that in the journey of learning to teach, there is a need to acknowledge ‘complexities’, manifest the interaction between theory and practice and experientially debate prevailing beliefs and principles (Rogers, 2011: 250). This is in line with the view that learning to teach is a multifaceted (Maynard and Furlong, 1993; Brooks and Sikes, 1997), exacting (Tomlinson in Hagger and McIntyre, 2006) puzzling and occasionally ‘painful’ task (Maynard and Furlong, 1993: 69). The multifaceted nature of teaching can be manifested by the following specific characteristics which exist in ‘classroom settings’ irrespective of differences in ‘how students are organised for learning or what educational philosophy the teacher espouses’:

1. *Multidimensionality*, which refers to the large quantity of events and tasks in classrooms . . .
2. *Simultaneity*, which refers to the fact that many things happen at once in classrooms . . .
3. *Immediacy*, which refers to the rapid pace of classroom events . . .
4. *Unpredictability*, which refers to the fact that classroom events often take unexpected turns . . .

5. *Publicness*, which refers to the fact that classrooms are public places and that events, especially those involving the teacher, are often witnessed by a large portion of the students . . .
6. *History*, which refers to the fact that classes meet for 5 days a week for several months and thus accumulate a common set of experiences, routines and norms which provide a foundation for conducting activities . . . (Doyle, 1986: 394-395)

Learning to teach is not only a difficult, time-consuming practice, but also classroom teaching is a small part of the whole process of teaching, for teachers' 'professional expertise' involves 'planning' and 'evaluation' of lessons, 'established routines and procedures' which attempt to manage the class according to plans (Green and Leask, 2009: 12).

Conceptualising learning to teach as a complex activity has its own merits.

According to Mutton et al., 'the greater the understanding of the nature of this complexity, the more effective teacher educators will be' in creating teacher education programmes that will cater for the needs of student teachers (2010: 73-74). Such conceptions involve both the learner and the practicum (ibid.). Indeed, some of the manifestations of the complexity of teaching consist in both the external and internal factors which are inherent in it such as 'the pressures of conflicting expectations' (Maynard and Furlong, 1993: 76-77) of head teachers, mentors, university tutors, pupils, parents and Ofsted inspectors.

2.3 External and internal factors in learning to teach:

The complex process of learning to teach is not only composed of many factors such as beliefs, cognition, affect, subject knowledge and skill acquisition but is also affected by the context in which it takes place, which emphasises the importance of the social factors in learning to teach (see section 2.5.4). Therefore, in order to provide a fuller understanding of learning to teach, a distinction will be made between the factors which exist outside the learners, external, such as the social context, the environment

where learning takes place and the mentoring approach adopted and those which are inherent in or characteristic of student teachers themselves such as their beliefs, cognition and emotions.

2.3.1 External factors in learning to teach

Learning cannot be isolated from its context and the factors which affect it and considering these has been characteristic of recent writings on student teachers' learning. The importance of the context can be exemplified by the fact that different departments and mentors, even within the same school, produce different learning opportunities (Douglas, 2010: 30-31 and McNicholl and Childs, 2010: 56-57). The literature shows a wide variety of pertinent 'contextual factors' impacting student teachers' learning such as 'departmental', 'institutional', 'wider social, cultural and political' influences (Hounsell and Hounsell, 2007: 94). Two important contextual factors which will be discussed below are the school placement/ practicum and the mentoring approach.

2.3.2 The school placement

An example of an important contextual factor is the placement or teaching practicum, which involves 'on-the-job training' such as teaching and observing classes with the help of a mentor (Yunus et al., 2010: 723). Some of its benefits are that it helps student teachers to not only link theory to practice 'critically' but also become accustomed to the 'responsibilities of a practising teacher' through 'field experiences' (Ewart & Straw in *ibid.*). This could be attributed, at least partly, to the highly practical nature of observing teachers since it involves actual encounters with real life situations rather than only theoretical knowledge. A study in England which involved post-observation interviews of 25 student teachers after a postgraduate course in two initial

teacher training partnerships attempted to identify the most helpful external factors in learning to teach (Mutton et al., 2010: 73). The study found that most student teachers agreed that mentors played a fundamental role in furthering their learning (which is discussed in the next section) due to recommendations and suggestions they offered and 'their feedback on observed lessons' (Mutton et al., 2010: 78). However, their study also identified external constraints for learning to teach which were: 'expectations of them as student teachers', 'lack of knowledge, expertise and power' and 'pressure to conform' (Mutton et al., 2010: 80). The most unhelpful external constraint, 'expectations of them as student teachers', refers to the situation of serial placement, or having to move to a different school, which created a discrepancy in terms of expectations of student teachers or shifted what was expected of them (Mutton et al., 2010: 80). A good number of such perceived constraints, Mutton et al. argue, cannot be eliminated entirely since they are an integral part of student teachers' characteristics as 'novices' (2010: 86). Therefore, they propose dealing with and improving student teachers' conceptions of the process of learning (Mutton et al., 2010: 86), which can be facilitated through collaborative dialogue (see section 2.4.2) between student teachers and their mentors, cooperating teachers and tutors, i.e. their communities of practice.

2.3.3 The mentoring approach

How mentors manage student teachers' learning and the approaches they utilise are fundamental to how preservice teachers learn in many ITT courses. Models of mentoring depict the parts both the mentor and student teachers play in the learning process, their communications and how their learning is structured in this relationship (Richter et al., 2013: 168). In a German study which included 700 student teachers, Richter et al., found that the type of mentoring rather than its amount accounted for the success of student teachers (2013: 166). Their research indicated that a constructivist

mentoring approach was superior to a transmissive one in terms of 'fostering the growth of teacher efficacy, teaching enthusiasm, and job satisfaction and reduces emotional exhaustion' (ibid.). The first mentoring approach is 'knowledge transmission' in which mentors 'transmit their knowledge within a hierarchically structured relationship' (Cochran-Smith and Paris in Richter et al., 2013: 168). 'Knowledge transmission' is conventional as the mentor is viewed as an expert and the student teacher is deemed as a 'recipient of knowledge' (Richter et al., 2013; 168). This conforms to a behaviourist approach in that learning is equivalent to amassing knowledge from experts in a passive fashion (ibid.).

'Knowledge transformation', which is based on a constructivist learning theory, conceptualises learners as 'constructors' of their own knowledge via linking new knowledge to pre-existing one (Richter et al., 2013; 168). Learning in this model is an 'active process' that happens in a 'social community' since learners become part of a community via 'participating in authentic tasks' (ibid.), which takes place slowly but without a 'strict hierarchical' fashion (ibid.).

Another typology of mentoring involves apprenticeship, competence-based and reflective approaches (Brooks and Sikes, 1997: 25). The apprenticeship model involves student teachers' 'shadowing' experienced teachers and mentors and observing them closely in order to imitate them when they start teaching their own classes (Scaife and Scaife, 1996: 74-75), which is consonant with behaviourism. This way of learning to teach is based on the assumption that complex abilities like teaching are most effectively acquired via imitating skilled professionals and under 'guided supervision' (Maynard and Furlong in McIntyre *et al.* 1993: 78). This kind of 'apprenticeship', which relies basically on 'personality and 'natural' skill', is 'not susceptible to systematic analysis' (Furlong and Maynard, 1995: 179). Proponents of this approach argue that student teachers need actual encounters with pupils, classroom events,

techniques and subject content (Maynard and Furlong, 1993: 78-79). Because student teachers require knowing and learning 'established routines', they need a 'model' (ibid.79). Nevertheless, this model implies that existing professional practice is perfect and this results in 'professional stasis' (Brooks and Sikes, 1997: 18), which signifies satisfaction with current practices and lack of innovation. Other shortcomings include the difficulty of distinguishing the most significant aspects of good teaching on the part of student teachers and the possibility that student teachers' examination of the observed teacher's performance might be flawed (Scaife and Scaife, 1996: 74-75). This could be ascribed to their lack of teaching experience which can be exemplified by not knowing what to look for and lack of focus particularly at the beginning of their training (Furlong and Maynard, 1993: 72). These two problems limit the potential of apprenticeship and its emphasis on learning by observing experienced teachers since student teachers have a limited amount of teaching experience, not to mention professional observing experience.

The competence-based model of learning to teach is, as the name suggests, based on the training of student teachers to perform a set of prescribed 'competences' (Maynard and Furlong, 1993: 80). The student teacher is usually observed according to specific standards and is provided with feedback thereafter (Maynard and Furlong, 1993: 80). Additionally, assessment standards and training programme activities are formulated based on such teaching competences (Brooks and Sikes, 1997). A frequent pitfall with this model of learning is that some teachers discontinue learning when they acquire basic competence or, put differently, they 'hit a plateau' (Maynard and Furlong, 1993: 80). This problem is also likely to happen in an apprenticeship mentoring approach. The competency-based model tends to be essential in governments' views about ITT programmes (Brooks and Sikes, 1997: 21).

Lastly, learning through reflection is not only a type of ‘experiential learning’ but also a ‘holistic’ contemplation of one’s experience of complex human situations’ (Elliott in Brooks and Sikes, 1997: 22-23). In this approach, student teachers are supported to shift their attention from their own teaching to their pupils’ learning, which entails transcending routines and rituals into a more comprehensive perception of knowledge acquisition of finding out alternative methods of teaching and establishing their own rationale and reasoning based on their own teaching (Maynard and Furlong, 1993: 81). Learning to teach conceptualised as an uncertain, investigative, context-specific, value-laden practice (Brooks and Sikes, 1997: 23). This implies that this model takes the complexities of learning to teach into account more than the other models. However, some researchers argue that in order to be ready for reflection, student teachers require a certain level of teaching competence (Maynard and Furlong, 1993: 81). Herold and Waring contend that student teachers lack criticality of their own subject teaching in English ITT, which can be exemplified by the focus in their courses on acquiring teaching skills and techniques over pupil-centred teaching and focusing on content which fosters the duplication of ‘content-driven’ approaches to teaching (2011: 63). Some potential problems for critical reflection are that the abilities it needs are arguably not exactly the same as those required for teaching, that it can become a goal in its own right, that it may harm student teachers’ confidence by revealing their shortcomings, and that it can produce ‘anxiety, self-doubt and low self-esteem’ by showcasing the incongruity between ‘actual and intended classroom practice’ (Brown and Mcnamara, 2011: 40). In addition, Le Cornu and Collins argue that critical reflection is affectively enervating and precarious because it encourages teachers to experiment rather than be content with secure and expected situations (2004: 31). This again shows the variety and the interaction of internal factors in learning to teach and importance of taking into account student teachers’ affective needs.

Overall, there is a ‘conceptual overlap’ between the models discussed above since what is considered as a fully-fledged model can be employed as a technique in another model as in the case of classroom observation, which is a dominant practice in the apprenticeship approach and a technique in the reflective approach, particularly in the context of coaching (Brooks and Sikes, 1997: 25). However, the claim that observation is a fully-fledged model in apprenticeship is untenable nowadays since pure apprenticeship is a simple model of learning that does not take the complexities of learning to teach into account, which by extension signifies that observation alone is not sufficient to learning to teach. The problem with these models is that they are not only ‘partial’ but also that ‘they are ideologically rather than empirically derived, which consequently blinds them to both the ‘complexities’ and ‘the developmental nature of professional learning’ (Furlong and Maynard, 1995: 179). However, there is a common thread between them despite some terminological differences as both the transmissive and apprenticeship models are rooted in behaviourist thinking and models of learning, which render participants as passive recipients of knowledge whereas both transformative and reflective theories view learners as active constructors of their own knowledge through participating in their own communities.

2.4 Internal factors in learning to teach

Contextual factors cannot describe alone how the process of learning to teach takes place. For example, Mutton et al., contend that certain personal orientations to learning to teach will enable student teachers to learn, no matter which context they are placed in (2010: 86). Put differently, it is one’s attitude towards the learning that this process will take place. The internal aspects of learning to teach involve cognitive, affective (Elliott and Calderhead, 1993: 171; Vygotsky in Edwards, 2010: 64) and

arguably moral dimensions (Brooks, 2004: 9). The moral dimension poses some ethical issues for teachers to respond to such as inappropriate department policy and voicing an opinion about a colleague's improper behaviour (Brooks, 2004: 9). However, the moral dimension can involve either cognitive or affective factors or sometimes both. In estimating the ethical repercussions of a certain practice, the teacher may not only base their actions on a certain rationale but also take into account what kind of feelings and reactions it may trigger. Therefore, this study considers the moral factor as corollary of the affective dimension and/or the cognitive one.

2.4.1 The cognitive dimension of learning to teach

Despite the interconnectedness of affective and cognitive factors in learning to teach, they will be addressed separately for the purposes of this thesis. Cognitive demands of learning to teach are powerful (Hagger and McIntyre 2006: 56); one of the challenges of learning to teach is the complex task of 'unlearning cherished beliefs or long-held assumptions' (Brooks, 2004: 9). Another cognitive requirement is that not only sufficient 'subject knowledge' (Shulman; Bennett and Carré in Brooks, 2004: 9) but also 'pedagogic content knowledge' (Shulman in Brooks, 2004: 9), (see section 2.4.3), which are essential to learning to teach (ibid.: 9-10). In addition, learning to teach requires 'the ability to plan, to assess, to differentiate, to communicate effectively, to use questions skilfully and to manage behaviour' (ibid.: 10). The cognitive dimension of learning to teach incorporates student teachers' theories, beliefs, knowledge and expertise.

2.4.2 Student teachers' personal theories and beliefs

An important factor in students' learning is their perceptions, beliefs and existing theories. The significance of comprehending these beliefs stems from their

interactive relationship with teachers' practice (Graham et al., 2014: 44). A theory can be defined as 'a person's set of beliefs, values, understandings, assumptions – the ways of thinking about the teaching profession' (Tann, 1993: 55). Le Cornu and Collins argue that student teachers' perceptions both of themselves and the school culture have an impact on how they teach (2004: 30). Similarly, Twiselton points out the role of one's values and beliefs in teaching despite the importance of the social context and cultural values of where student teachers learn to teach:

Studies of teachers' beliefs show that there is a close (but complex) relationship between the teaching approaches and strategies they adopt and their personal beliefs and underlying assumptions . . . (2007: 500)

An American qualitative case study which examined two history teacher education candidates found that they graduated with different strengths and experiences (Monte-Sano and Cochran, 2009: 129). It attributes this to their conceptions of teaching, their previous knowledge, the coursework they did and their field placements (ibid). In other words, their different prior knowledge and 'sense of purpose' could have acted as a 'filter' of the concepts and themes provided by the course (ibid). Therefore, Monte-Sano and Cochran propose that teacher education courses 'must build off of candidates' incoming ideas about teaching the subject to students' (Monte-Sano and Cochran, 2009: 131).

Although student teachers have certain prior ideas about teaching, each teacher has different 'strengths' and weaknesses (Tomlinson, 1995: 30). Student teachers at the inception of their career are equipped with a wide range of ideas from multiple sources, which 'will determine their priorities and influence what they consider they will need to learn' (Hagger *et al.*, 1993: 88). However, unlike the university acquired ideas, the conceptions which trainee teachers acquire as schoolchildren are not only hard to examine and articulate but also to modify (ibid.: 89) because these ideas have become so completely internalised that they operate below the cognitive threshold. One

instrument of changing such beliefs is through reflection (Brown and McNamara, 2005: 61) (See section 3.4.5).

A not uncommon phenomenon is the discrepancy between beliefs and practice. Graham et al, who studied key stage three Modern Foreign Languages teachers' beliefs about listening in a Secondary State school in England, identified two kinds of teacher beliefs in the literature: 'practical' which can be exemplified by their own knowledge and conceptions and 'formal' which is informed by reading and research (2014: 45). Despite the importance of studying teachers' beliefs, there is sometimes a discrepancy between them and practice particularly with novice teachers due to contextual factors (Graham et al., 2014: 46). Another issue is negative 'memories' from learners' school experience and sometimes of their teachers, content misunderstandings and 'attitude problems', which require student teachers to 'unlearn' and 'relearn' part of their content knowledge (Ball in Brown and McNamara, 2005: 59). Therefore, student teachers' 'pre-program beliefs' need to be made manifest in order to bring about changes in actions (Brown and McNamara, 2005: 60).

One way of externalising student teachers' beliefs and theories can be achieved via post-observation dialogue. Dialogue is an effective way of enabling student teachers to become aware of their beliefs and conceptions, which is recommended by the Herold and Waring study of a one year secondary ITT secondary course of physical education in England:

. . . an ongoing development of a collaborative professional dialogue, involving all those concerned with the training of the pre-service teachers and the pre-service teachers themselves, is needed to ensure high-quality learning experiences . . . (Herold and Waring, 2011: 75).

Likewise, Tomlinson maintains that student teachers' ideas should be allowed to surface through dialogue (1995: 30-35). Student teachers at school should not only be made conscious of their preconceptions, attitudes and beliefs, but also be provided with the

contexts to talk about, negotiate and to analytically assess them (Hagger *et al.*, 1993: 88). This ‘articulation’ can be done through ‘discussion, as well as observation and practice’ (ibid). Oral or written ‘articulation’ of vague ideas helps to elucidate them and this not only grants student teachers ‘ownership’ of new understandings of their practice but also via ‘relating them to their own experiences and expressing them in their own terms they will make the learning *meaningful*’ (Ausubel in Brooks and Sikes, 1997: 24). Dialogue triggered by a classroom observation is an important part of the perspective of this study since it involves student teachers’ participation and interaction with their own communities of practice in a specific social context.

2.4.3 Teacher knowledge and expertise:

Another important internal factor in learning to teach is teacher knowledge. This factor is multifaceted since it involves different cognitive demands on new teachers. Teacher knowledge is not merely limited to subject knowledge and pedagogic knowledge, for Shulman contended that ‘minimum’ knowledge for teaching involves:

- 1 *Content knowledge*: the content that is to be taught . . .
- 2 *General pedagogic knowledge*: the broad principles and strategies of classroom management and organisation that apply irrespective of the subject.
- 3 *Curriculum knowledge*: the materials and programmes that serve as ‘tools of the trade’ for teachers.
- 4 *Pedagogic content knowledge*: the knowledge of what makes for effective teaching and deep learning that is the basis for the selection, organisation and presentation of the content teachers want their pupils to acquire; i.e. the integration of content and pedagogy for teaching the subject; that which makes the content instructional . . .
- 5 *Knowledge of learners and their characteristics*: both knowledge of learners of a particular age range (empirical or social knowledge) and cognitive knowledge of learners . . .
- 6 *Knowledge of educational contexts*: including a specific school, catchment area and the wider community.
- 7 *Knowledge of educational ends (aims), purposes, values and philosophical and historical influences*: both short and long term goals of education and of a subject (Shulman in Green and Leask, 2009: 14).

These types of knowledge emphasise the point that teaching is a multi-skill, demanding activity.

Other researchers maintain that one of the components of learning to teach, ‘practical classroom knowledge’, involves ‘four ‘Ss’ (Maynard and Furlong, 1993: 73), which are knowledge of ‘student’ (or pupils), ‘situations’, ‘subject matter’ and ‘strategies’ (Maynard and Furlong, 1993: 73). Others argue that teaching involves changing the teacher’s subject knowledge into ‘pedagogic knowledge (Brown and McNamara, 2005: 63; Green and Leask, 2009: 14) in the form of tasks which result in learning (Green and Leask, 2009: 14) even though good subject knowledge alone does not guarantee good teaching (ibid.). Similarly, Cochran-Smith and Lytle identified two components of teacher knowledge: ‘knowledge about effective practice’ and knowledge about one’s own practice (Cochran-Smith and Lytle in Arends and Kilcher, 2010: 12-13). The former can be exemplified with ‘theory’ and ‘research’ about practice such as ‘subject knowledge’ or the way pupils acquire knowledge and is, for instance, obtained through books and workshops (ibid.). Knowledge about one’s own practice refers to information about the influence of certain teaching strategies on one’s own pupils’ ‘learning and motivation’ (ibid.).

Additionally, Eraut classifies knowledge for teachers into: ‘codified’ such as books and journals and ‘cultural’ which is uncoded and learned informally by taking part in social practices and personal which is defined as ‘what individual persons bring to situations that enable them to think, interact and perform’ (Eraut, 2007: 117).

‘Uncoded knowledge’ is reminiscent of the social learning perspective of this study which considers legitimate peripheral participation in communities of practice as paramount in learning to teach, particularly via observation (see section 2.5.4).

According to Eraut’s knowledge types, knowledge could be deemed as both internal and external to the learner. Therefore, it is contentious to classify teacher knowledge as solely internal because such categorisation differs depending on the perspective adopted regarding how student teachers learn. A difficulty in conceptualising workplace

knowledge is its ‘tacit’, ‘implicit’ nature for much of it is deeply rooted in the workplace practices and may not be conceived of as knowledge as such (Eraut, 2007: 116). Therefore, articulating the knowledge which informs practice is difficult because by doing this, knowledge may become conceptualised as a set of recommendations and suggestions and this ignores the ‘reactive and creative’ decision making of the teacher (Edwards and Collison, 1996: 17).

Another important internal factor in learning to teach is teaching expertise. Arends and Kilcher argue that the differences in teacher expertise can be manifested in certain differences in the practices of expert teachers versus novice ones (Arends and Kilcher, 2010: 9) and they cite researchers such as Berliner (1987, 1994, 2001) and Glaser (1987, 1990) who identified the following differences:

- *Experts are able to perform a number of tasks automatically without having to stop and think about how to do them.*
- *Experts understand problems at a deeper level than novices.* Whereas experienced teachers’ deep knowledge enables them to execute pertinent ideas swiftly, novices have a shallower grasp of teaching knowledge and a slower reaction time towards difficult situations.
- *Expert teachers are more flexible in their teaching than novices.*
- *Expert teachers have more confidence in their instructional abilities than novices.*
- *Experts make substantially more inferences from information than do novices.* Unlike experienced teachers, ‘classroom events’ can be ‘overwhelming’ to new teachers.
- *Experts are able to recognise patterns of classroom activities and events.* Whereas experienced teachers analyse issues with precision, novices find it difficult to comprehend them (Arends and Kilcher, 2010: 9-10).

These differences are relevant to this study since if student teachers are supported to become aware of them systematically, they may spend less time to become more experienced than if they learn to teach through trial and error alone. In fact, a good number of these differences in teaching expertise are relevant to novices observing experienced teachers and peers, namely ‘understanding problems’, ‘making inferences’ and ‘recognising patterns’.

According to Hammerness et al., teacher expertise has two aspects: ‘efficiency and innovation’ (Hammerness et al in Arends and Kilcher, 2010: 11); efficiency refers

to ‘a teacher’s ability to retrieve and accurately apply knowledge and skills to specific teaching situations’ such as using ‘small group learning to teach spelling’ (ibid.). However, not all experienced and efficient teachers are innovative, which entails ‘moving beyond known approaches and routines’, reassessing current practice and being willing to learn new abilities and techniques ‘as in using a new approach to teaching reading after concluding that previous approaches have failed’ (Arends and Kilcher, 2010: 11).

In conclusion, the notion that experience should automatically result in learning is flawed since while it may lead to adequate knowledge and skills to be a good teacher, it does not necessarily entail lifelong learning (Mutton et al., 2010: 89). Therefore, teacher educators need to convey to student teachers that teaching experience is an essential but not sufficient criterion for ‘professional learning’ (ibid.). Moreover, they also need to address student teachers’ opinions and beliefs about experience, their goals and their targets for their future learning (ibid.). Having discussed the cognitive aspect of learning to teach, the other important internal factor for student teachers, the affect, will be explored in the next section.

2.4.4 The affective dimension of learning to teach

The role of the affect is a very important factor in learning to teach since it helps us to comprehend the interactions between teachers and their students (Le Cornu and Collins 2004: 32). The affective impact on learning to teach can be exemplified by student teachers’ feelings of being ‘stimulated , apprehensive, exposed, endangered, confused, discouraged, touched, proud, and lost – not necessarily in that order’ (Fuller and Bown in Furlong and Maynard, 1995: 68). In fact, one of the reasons which makes learning to teach different from many other jobs is that it encompasses our feelings, our sense of our identity and ‘our vulnerability as human beings’ (Smith and Alred in

Brooks, 2004: 9), which makes teacher training courses ‘a period of heightened emotional sensitivity for many student teachers’ (ibid.). Another manifestation of the emotional subcomponent of the challenge of learning to teach is ‘the rapid fluctuations in mood’ in the process of learning to teach (ibid.). Consequently, since teaching can be affectively exacting for student teachers, some of them might be tempted to learn to teach by attempting to ‘fit in’ (see section 2.6) with what seems to be the ‘institutional norms’ of their working place, which can also be painful (Hagger and McIntyre, 2006: 55). This is not to say that such institutional policies, protocols and procedures are necessarily bad; rather, they may not be easy to conform to by student teachers when they start learning.

Additionally, Le Cornu and Collins uphold that recent political and economic changes and having more responsibilities for ‘individual or wider social problems’ adversely affected teachers’ psyches and made them more ‘cynically pragmatic’ and focused solely on surviving (see section 2.6) (2004: 30). Also, since student teachers should examine their thoughts analytically, this may sap their self-confidence (Hagger *et al.*, 1993: 90) due to their pondering on their mistakes and weaknesses. The sheer complexity and the emotionally demanding nature of learning to teach may tempt some student teachers to tend to focus on satisfying supervisors only, rather than on their own long-term learning. Therefore, Le Cornu and Collins advocate fostering student teachers’ confidence to ‘confront inequities and to challenge the implicit classroom conditions which act as barriers to some students’ participation’ (Le Cornu and Collins, 2004: 30). According to them, ‘Confident teachers are more able to provide for learning in ways which actively engage each child in the learning process’ (2004: 30).

Oosterheert *et al.* argue that the student teachers’ tendencies for learning to teach are highly ‘affective’ (2002: 42), which can be exemplified by the fact that some student teachers’ emotional characteristics determine which learning techniques and ‘regulation

strategies' they favour more than others (ibid.). For instance, some student teachers may resort to 'self-handicapping strategies (e.g., procrastination, low goal-setting) to protect their sense of self-worth' (ibid.).

Interestingly, both the affective and the cognitive parts of learning to teach are affected by the mentoring approach adopted in a given ITT course. Whereas in terms of the emotional pressure on student teachers they need sufficient support from their mentors, the cognitive ability of student teachers they may be more in need of a 'challenge' in order to feel obligated to improve their teaching (Daloz in Elliott and Calderhead, 1993: 171-2). Optimising the balance between levels of challenge and support are important for student teachers since if both challenge and support are low, improvement is not very likely to occur (Daloz in ibid.).

One way of providing support for student teachers to cope with the challenges of their training is building positive relationships with those around them in the course. That is, 'interpersonal' communications and relationships student teachers engage in while 'networking' in their training course not only help them deal with the 'challenges' inherent in teaching but also have 'continued importance for their development and success in teaching' (Fox and Wilson, 2015: 93). There are two advantages of student teachers' positive relationship-building: 'cognitive' related to knowledge and skills improvement and 'affective' associated with 'their care, encouragement and reassurance' (Fox and Wilson, 2015: 95). Fox and Wilson identify different sources of informal support for student teachers: 'peers, school-based teachers, university lecturers, partners, parents and friends' (Fox and Wilson, 2015: 94). However, according to their study which, included qualitative case studies of three secondary school trainees in a full time year-long PGCE in England (ibid.: 93), there is a dearth of research regarding informal teacher learning (Fox and Wilson, 2015: 94). In addition, they maintain that course providers' arrangement of favourable 'relationships' for student teachers'

training is not adequate; therefore, student teachers should take a leading role in forming such relationships (Fox and Wilson, 2015: 93). They also contend that there is a need to look into how student teachers construct ‘positive relationships’ during their learning to teach (Fox and Wilson, 2015: 94) and that ITE providers should train course leaders ‘explicitly’ to provide positive, supportive cultures for student teachers to help them in their relationship-building (Fox and Wilson, 2015: 105).

Another important element regarding student teachers’ affect is the kind of mentoring they receive, which is evidenced by an interview-based study with 17 primary PGCE student teachers in the University of Wales Swansea conducted by Maynard (2000: 29). She examined ‘good mentoring practices’ and found evidence of the importance of the affective factors in learning to teach:

When students discussed ‘good’ practice in mentoring they often made reference to how mentors made them ‘feel’: for example, welcome, accepted, included, supported and recognised as an individual (2000: 29)

Although her study was conducted in a primary school, its relevance to the study stems from the similarity of the context, an initial teacher training course in a UK University and the similarity of her perspective, Lave and Wenger’s concepts of communities of practice and peripheral participation. One of the most important affective factors in her study was student teachers’ relationships with their mentors and how they were able to manage such relationships, which facilitated their ‘success in their placements’ (Maynard, 2000: 17). Having discussed some important external and internal factors which impact how student teachers learn to teach, the focus now will shift to how this process takes place in light of some influential learning theories.

2.5 Learning theories

Different theories focus on different factors in learning, which indicates the multifariousness of perspectives regarding the ‘nature of knowledge, knowing, and knowers, and consequently about what matters in learning’ (Wenger, 1998: 4). Despite this, a theory is not a ‘recipe’ which dictates exactly what we should do; instead, it is a guide about what to focus on, what problems to anticipate and how to deal with them (Wenger, 1998:10). According to Wenger, there are four main psychological theories of learning which are: behaviourist, cognitive, constructivist and social (Wenger, 1998: 279). Whereas both Bryceson and Woolfolk Hoy utilise the same terms and categories regarding the first three theories of learning, Wenger’s social learning theories are described as social constructivism by Bryceson (Bryceson, 2007: 190) and socio-cultural theories by Woolfolk Hoy (Woolfolk Hoy et al. 2013: 10).

2.5.1 Behaviourist theories

In behaviourist theories, learning takes place as a result of changing behaviour through a ‘stimulus-response’ relationship (Wenger, 1998: 279). The learner is perceived to be receiving knowledge passively from a teacher who is actively delivering it (Bryceson, 2007: 190-191). The emphasis in these theories is on ‘observable changes in behaviors, skills, and habits’ and learning is viewed as an alteration in behaviour caused by experience (Woolfolk Hoy et al. 2013: 10). This model suffers from focusing on the observable only since it overlooks ‘a learner’s thoughts, tacit knowledge and internal conceptions might have altered during the learning experience’ (Bryceson, 2007: 190-191). Despite this, this approach has offered valid applications in designing ‘interventions’ for special needs learners (Woolfolk Hoy et al. 2013: 10).

2.5.2 Cognitive theories

This approach came as a result of ‘neurophysiological and psychological’ investigations attempting to comprehend ‘how the brain processes and captures information through encoding and retrieval from memory’ (Bryceson, 2007: 191). It focuses mainly on the learner’s mind and it deems the learner as an ‘information processor’ who acquires knowledge via ‘problem-solving and critical analysis’ of that knowledge (Bryceson, 2007: 191). Cognitive learning theories focus on ‘internal cognitive structures’ (Wenger, 1998: 279) such as ‘thinking, decision making, remembering, creating, and problem-solving’ (Woolfolk Hoy et al. 2013: 10) and conceptualise learning as changes which occur to them (Wenger, 1998: 279). Some of its strategies are ‘note-taking, mnemonics, and visual organizers’, which provide learners with ‘more control over their own learning by developing and improving their metacognitive skills and self-regulated learning strategies’ (Woolfolk Hoy et al. 2013: 10).

An example of a cognitive theory is the concept of schemata. Student teachers come to teacher education courses pre-loaded with ‘preconceptions, ideals and beliefs’ (see section 2.4.2), which constitute not only a major influence on their learning to teach but also represent ‘schemata’ which may either help or hinder their learning (Mutton et al., 2010: 73-74). Cognitive psychology uses the concept of schemata to account for the cognitive differences between experienced teachers and novices (Arends, 1994: 23) (See section 2.4.3). Schemata denote a person’s ‘knowledge structures’ and the way knowledge is ‘stored and processed in memory’ (ibid.). There are four implications of schemata theory for learning to teach:

1. Individuals store and organize knowledge in memory through knowledge structures or schemata.
2. A person’s schemata and prior knowledge about any topic greatly influence what can be learned.

3. To be meaningful, new information must be structured in such a way as to hook into and activate existing schemata.
4. Differences in schemata account, in part, for performance differences in complex tasks such as teaching (Arends, 1994: 23).

Despite its usefulness of understanding learning, this approach shies away from considerations of context and social interactions in how people learn.

2.5.3 Constructivist theories

Constructivism is a nebulous term (Powell and Kalina, 2009: 241) which has myriad types and interpretations (Powell and Kalina, 2009: 241 and Yoders, 2014: 12). Constructivist perspectives of learning concentrate on how cognitive structures are constructed as a result of ‘interacting with an environment’ (Wenger, 1998: 279). People ‘make meaning of events and activities’ (Woolfolk Hoy et al. 2013: 10) and ‘create (or construct) new understanding by actively building upon prior knowledge and experiences’ and ‘as internal representations’ that are influenced by their own experiences (Yoders, 2014: 12). This is opposed to obtaining new understanding and meaning ‘directly’ from the world outside them (Yoders, 2014: 12) or internalizing knowledge from ‘the external environment’ (Woolfolk Hoy et al. 2013: 10). The two main divisions of constructivism are cognitive or individual constructivism that is based on Piaget’s work and social constructivism that is inspired by Vygotsky’s writings (Powell and Kalina, 2009: 241). Whereas knowledge in the former is generated through a personal process, this is achieved via interacting with others in the latter (Powell and Kalina, 2009: 241). However, for the purpose of this thesis and following Wenger 1998, Bryceson, 2007 and Woolfolk Hoy et al. 2013, social constructivism will be treated a separate category in the next section rather than as a sub-category here.

2.5.4 Social learning theories

Social perspectives, which are alternative terms for social constructivism and socio-cultural theories, emphasise the role of ‘social interactions’ and ‘interpersonal relations’ in learning (Wenger, 1998: 280). According to Powell and Kalina, Vygotsky, who is the ‘founding father’ of social constructivism, maintained that both ‘social interaction’ and ‘personal thinking processes’ are fundamental to learning (Powell and Kalina, 2009: 243). Vygotsky not only believed that ‘learning is inherently social’ but also rooted in a specific ‘cultural setting’ (Powell and Kalina, 2009: 244). Put differently, both ‘culture’ and ‘context’ are paramount in constructing meaning and the act of learning is not an only ‘internal process’ or a ‘passive’ activity (Bryceson, 2007: 191).

Social learning theories have received increasing popularity which can be exemplified by the concepts of legitimate peripheral participation, communities of practice and situated learning. Herold and Waring emphasise the importance of the literature on the situated nature and the role of communities of practice in recent literature on learning to teach (2011: 63). Hodge et al. contend that there has been an increasing shift in models of education from formal, academic learning towards a more participatory, situated one (Hodge et al., 2011: 167) and Shulman and Shulman propose a social way of learning to teach where learning takes place in ‘communities and contexts’ (Shulman and Shulman, 2004: 257). In their model, a teacher ‘is a member of a professional community’ and is characterised by being ‘ready (*possessing vision*), willing (*having motivation*), able (both *knowing and being able 'to do'*), reflective (*learning from experience*), and communal (*acting as a member of a professional community*)’ (Shulman and Shulman, 2004: 259). Indeed, a social theory of learning focuses on the intrinsically ‘socially negotiated’ nature of meaning and views thinking

and knowing as relations among people in a 'socially and culturally' constructed world (Lave and Wenger, 1991:50-51).

An important concept in social learning is legitimate peripheral participation, which is an 'analytical' perspective about learning (Lave and Wenger, 1991:40). According to Lave and Wenger, learning is 'the process by which newcomers become part of a community of practice' and 'the mastery of knowledge and skill requires newcomers to move toward full participation in the sociocultural practices of a community' (Lave and Wenger, 1991: 29). Peripherality indicates acquiring 'access to sources for understanding' via increasing participation which is related to 'legitimacy' of the 'social organisation' and the degree of 'control over the resources' in order for full participation to take place (Lave and Wenger, 1991:37). Learning in this perspective is conceived of as a developing and constantly changeable cluster of relations (Lave and Wenger, 1991:50). Since participation necessarily involves 'negotiation and renegotiation of meaning', sense-making and practice are always intermingled and 'mutually constitutive' rather than a 'dichotomy' (Lave and Wenger, 1991:51-52). In other words, legitimate peripheral participation involves both cognitive and social dimensions. In legitimate peripherality new learners are not only passive observers but also active participants in learning 'both absorbing and being absorbed in the culture of practice' which enables them eventually to make the 'culture of practice theirs' (Lave and Wenger, 1991:95).

Another important concept in social learning which is intricately intertwined with legitimate peripheral participation is communities of practice, which can be defined as 'a set of relations among persons, activity, and world, over time and in relation with other tangential and overlapping communities of practice' (Lave and Wenger, 1991:98). Acquiring knowledge occurs as a result of our involvement in our communities (Wenger, 1998:8). Communities of practice, which constitute a

fundamental component of our lives, are both ubiquitous and ‘informal’ since ‘they rarely come into explicit focus’ and the majority of them ‘do not issue membership cards’ (Wenger, 1998:7). Lave and Wenger emphasise their importance by portraying them as an innate factor in acquiring knowledge (Lave and Wenger, 1991:98). In such communities, learning via participation does not happen through replication or transmission. Rather, it takes place through ‘centripetal participation in the learning curriculum of the ambient community’ (Lave and Wenger, 1991:100). Since the researched course in this thesis attempts to provide student teachers with ‘an understanding of their roles as teachers in relation to the demands of parents, governors, other agencies and the wider community’ according to the course handbook (*Secondary PGCE Course Handbook*, 2012, 6), this indicates the role and importance of communities of practice.

Other researchers endorsed such social learning concepts; according to Le Cornu and Collins, ‘learning communities’ can help teachers to reflect on their learning and practice (Le Cornu and Collins, 2004: 31-32). Herold and Waring point out the role and importance of situated learning and communities of practice in their study which examined a one year initial teacher training and education course for secondary physical education students in England (2011: 74). They found that pre-service teachers’ learning was heavily affected by the schools they were placed in and their particular cultures (ibid.) and they maintain that, the most effective learning required ‘open, supportive and collaboratively working communities of practice’ and student teachers were able to exhibit ‘critical views’ of what they observed and of the practices they took part in (2011: 74). Likewise, Le Cornu and Collins emphasise the importance of ‘authentic, caring relationships’ which are learning oriented and in which ‘teachers provide support and challenge for each other to learn new practices and to unlearn old assumptions, beliefs and practices’ (McLaughlin in Le Cornu and Collins 2004: 31-32). One of the

requirements of such a participant concept of learning is ‘professional dialogue’ (see section 2.4.2) in learning communities which helps increase participation for learners (Le Cornu and Collins, 2004: 32 and Herold and Waring, 2011: 75). However, despite the importance of a positive school culture of collaboration and participation on learning to teach which can be exemplified by combating ‘feelings of isolation and powerlessness’, this involves an affective challenge (Le Cornu and Collins, 2004: 31).

Although all four broad theories of leaning represent valid, yet incomplete perspectives of how understanding how student teachers learn to teach, this study adopts the social learning perspective for two main reasons. First, this perspective takes both internal factors such as cognition and external factors such as the personal interactions into account, unlike behaviourist and cognitive theories. Second, the nature of observation itself is deeply rooted in the social learning perspective. When student teachers observe other teachers, ideally they interact with them before the lesson to request permission, inquire about the objectives of the lesson and discuss it after the observation if it is possible. Student teachers may also interact with pupils during the lesson to check their learning and progress. Such interactions are processed cognitively by student teachers and some observed techniques and strategies may be adopted, modified or discarded altogether before they teach. This interactive process of observation happens in a community of practice, of experienced teachers, mentors and tutors, and student teachers gradually increase their participation from being merely shy observers to become almost full-time teachers in this community as they gain more confidence and experience. Another way of understanding how student teachers learn is through conceptualising the learning process as a set of stages. Therefore, the next section will examine some studies which propose that student teachers pass through a series of stages, albeit not necessarily in a neat fashion, before they become fully-fledged teachers.

2.6 Models of student teachers' stages of development

Many student teachers vary their focuses and goals during their journey of learning to teach. This can be exemplified by student teachers' shift in focus from the subject matter to the pupils they teach, which is a characteristic of a reflective approach to learning to teach. Herold and Waring explicate the development of the student teachers in their study from a focus on content knowledge at the beginning of their course to a more 'learner-centred' approach due to an increase in their confidence and important aspects of subject knowledge (2011: 74). Perry asserts that learning happens in a gradual fashion (Perry in Ramsden, 2003: 27) whilst Vermunt upholds that this incremental change happens in relation to student teachers' self-regulation in their teacher education courses (2007: 86). This gradual process from being in the role of a learner to that of a teacher necessitates a major change in behaviour, which can be facilitated by student teachers' observations inside and outside classrooms (Allen and Toplis, 2009: 31). Similarly, some scholars posit that student teachers pass through different levels of development throughout their teaching career (See Maynard and Furlong, 1993: 72, Tomlinson, 1995: 19-20). An advantage of staged models of learning to teach is that they enable student teachers to identify their own stage of development, 'accept the anxiety and concerns' in the initial teaching experiences and help them in planning their learning to teach activities accordingly (Arends, 1994: 18).

A number of authors have presented student teacher growth as a multi-stage process. Fuller presents these phases as varying according to student teachers' concerns:

- 'concern with self' when their attention shifts to such things as 'class control' and subject content, and

- ‘concern with pupils’ when they focus more on children learning rather than their own teaching (Fuller in Lotter, 2004: 29).

The shift from concern with self which involves a focus on the subject content to ‘concern with pupils’ is evidenced by the Herold and Waring study (2011: 74) cited above. Another model is that of Fuller and Bown which involves ‘survival’, ‘mastery’ and lastly a phase where teachers either maintain ‘routines’ or become ‘consequence oriented’ as they become sensitive to their influence on their pupils (Fuller and Bown in Furlong and Maynard, 1995: 69). However, the term ‘mastery’ is due to the challenging nature of teaching, the limited amount of time for training student teachers in ITT and the lengthy requirement of achieving lifelong learning. Calderhead divides learning to teach into three distinct phases: ‘fitting in’ to the school and ‘class teacher’s routines’ which may assume a ‘survival’ tendency, ‘passing the test’, where student teachers endeavour to satisfy their school mentors by performing certain teaching behaviours and finally ‘exploring’, which was characterised by experimentation and reflection which tended to be shallow (Calderhead in Furlong and Maynard, 1995: 68-69). Interestingly, student teachers’ survival here is a likely facet of ‘fitting in’ rather than a distinct stage in its own right. Likewise, passing the test here seems similar, albeit more realistic, to the mastery stage in the Fuller and Bown model. However, the last stage of exploring seems to ignore the teachers who become complacent about their teaching and who settle into routines since they may continue doing what works for them rather than develop new teaching strategies and techniques.

A more detailed learning to teach model is that of Furlong and Maynard; in the early idealism stage: student teachers’ expectations tend to be ‘idealistic’ in their attitudes towards their pupils and they may also have previous or current ideal images of ideal teachers (Furlong and Maynard, 1993: 72). This implies that student teachers may emulate teachers who taught them as pupils at school or teachers in the schools

who they observe. In the second stage, survival, when student teachers' high expectations clash with the difficulties of the classroom, most of them tend to become concerned about proving their authority in the class and 'fitting in' (ibid.). During this time, student teachers are characterised by their inability to 'see' during classroom observation (ibid.). In the third stage, recognizing difficulties, student teachers usually become not only more aware of their responsibilities but also they tend to be worried about being assessed, ways of teaching and resources (ibid.). However, Furlong and Maynard concede that their model of student teachers' learning is only a 'broad pattern' because students' growth can be 'fragmentary and erratic' (ibid.: 98). According to them, identifying student teachers' phase of development is important for mentors who should not only 'start from where the learners are' but also consider their 'typical pattern of development' (1995: 180).

Another interesting model of learning, which can be applied to learning to teach in general, is Tomlinson's model of the degree of consciousness in relation to competence or its lack. Tomlinson provides a skill acquisition model which comprises four phases:

. . . learners start from unconscious incompetence (not knowing what they don't know), proceed to conscious incompetence (knowing that they don't know how), thence to conscious competence (knowing in theory, but applying only with difficulty) and eventually to unconscious competence (knowing how to, but not being exactly aware of what they're doing) (Tomlinson, 1995: 44-45)

Interestingly, student teachers' inability to see when they observe experienced teachers particularly, which Maynard and Furlong note in the survival stage in their model, intersects with the first stage of the Tomlinson model; student teachers' inability to see can be thought of as unconscious incompetence since at this stage they do not know what they should know.

Overall, there are common threads in the majority of such models such as the survival stage which takes place near the beginning, trying to fit in and focusing on the subject content. However, student teachers' needs change over time (Brooks and Sikes, 1997: 34) and there are differences among student teachers themselves in terms of their cognition, affect, context and social interactional skills. Just as student teachers develop at their own pace and in their own ways, research on learning to teach reflects the disorderliness and the 'overlap' among the different phases of learning (Tomlinson, 1995: 19-20). This is evident in the differences not only in terminology but also in concepts associated with stages of learning to teach. Not only are student teachers' journeys to teach not identical, but also the research on learning to teach lacks coherence.

Likewise, the researched course handbook's requirements in what student teachers are supposed to learn at different stages in their ITT reflect a change in the priorities, responsibilities and focuses for student teachers and are reminiscent of proposed stage models of learning to teach in the literature. In the first phase of the course, from September to December, student teachers were supposed to acquire 'core skills' in learning to teach which are 'planning, classroom management and communication, and on consolidating the trainee's own subject knowledge' (*Secondary PGCE Course Handbook*, 2012: 17). In the second phase, spanning January, student teachers were supposed to engage in more advanced skills which are improving their teaching skills, widening their focus from a classroom to the entire school and investigating 'the relationships between their subject and other subjects' (*Secondary PGCE Course Handbook*, 2012: 17). In the third and last phase of the course, which is almost completely in schools, student teachers were supposed to improve their teaching competence beyond the basic teaching skills learned earlier in order to acquire 'the

extended professional skills of the practitioner' (*Secondary PGCE Course Handbook*, 2012: 17) although the handbook does not detail what these skills are.

2.7 Conclusion

This review of learning to teach has shown diverse terminological and conceptual constructs. Terminological divergences, which are normally attached to certain geographical areas, can be exemplified by the use of the word practicum and school placement to refer to more or less the same concept. Another example is the use of the words theories and beliefs to refer to personally held concepts. Despite a lack of coherence in the literature findings and terminological variety, this brief review has revealed that learning to teach is both complex and multifaceted. It incorporates both external factors such as the training course and the mentoring approach as well as internal factors such as cognition and feelings, which vary from context to context and individual to individual. Different learning theories were formulated to explain how learning to teach happens. Despite the potential value in the cited theories and since a theory ideally has to explain all the parts of a phenomenon as much as possible, this study adopted Lave and Wenger's social learning theories particularly CoP and LPP. Such theories not only focus on external, contextual factors but also internal ones such as teachers' beliefs and knowledge. Moreover, they not only draw on a reflective approach but also have an element of apprenticeship, albeit not in a traditional sense of a master-apprenticeship relationship, since learners are expected to utilise a variety of options rather than blindly copy what they see. Another advantage of this perspective is the nature of focus of this study. Through observation, student teachers move gradually from the periphery of their community when their teaching responsibilities are quite limited into a more central one by engaging in minor tasks which are increased incrementally. The next chapter will shift the focus of this thesis from the generalities of learning to teach into a specific example of such learning which has been fundamental

for a long time in many teacher training courses, namely student teachers' observations of more experienced teachers and peers in secondary ITT.

3. Observing experienced teachers and peers in Initial teacher training

3.1 Introduction

In many teacher training courses across the world, classroom observation of other teachers plays a pivotal role in their learning to teach journey since a great deal of our activities are acquired by observation via modelling (Young and Bender-Slack, 2011:327). Observing other teachers can be defined as ‘the systematic, and as accurate as possible, collection of usually visual evidence, leading to informed judgements and to necessary changes to accepted practices’ (Tilstone, 1998: 6). This definition seems to lean towards a structured type of observation since it is systematic and requires accurate gathering of evidence and attempts to reduce subjectivity and bias. However, it does not seem to include informal, unstructured observation that student teachers may engage in at the inception of their ITT mainly to familiarise themselves with the school culture and to learn basic routines without necessarily using an observation checklist. This study will also review the literature on peer observation as it was an innovation in the ITT programme investigated in this study where student teachers planned lessons together and observed each other and discussed the lessons afterwards. Despite the great potential of observing other teachers in learning to teach in ITT, classroom observation for student teachers is not necessarily an automatic, easy skill, but it can be acquired and enhanced systematically. Thus, this thesis focuses on identifying effective strategies and techniques in student teachers’ observations of experienced teachers and peers in a secondary ITT course.

To keep the literature review as up-to-date as possible in this study which spanned the years from 2011 to 2015, searching for the literature was not a one-off event. Several book and article searches in major online education databases such as

British Education Index, Education Research Complete and ERIC on observation and peer observation were conducted. The key search words for books were ‘observation’ and ‘peer observation’ without other limiters. The keywords used for the articles’ searches were ‘observation’, ‘peer observation’ or ‘observ#’ in the title. Other key words, used in conjunction with the above cited ones, included: ‘secondary’, ‘student teachers’, ‘teaching’, ‘initial training’, ‘UK’ and ‘teacher education’ in the abstract of articles from 1994 until 2014 to cover a reasonable amount of time in recent literature. Interestingly, combining observation/peer observation with secondary education produced almost no results. Despite finding a good number of articles in the literature, many of them were not very relevant due to the many different types, purposes and contexts in observation. The literature was mostly international with the vast majority being in the US and little literature about pre-service teachers’ observations of other teachers for training purposes in the secondary stage was found in the UK. Another characteristic of the literature is the dearth of multi-sites longitudinal studies and the dominance of case studies and small-scale studies.

An interesting observation about the literature is not only the huge differences in the many purposes for the same topic, observation, but also the difference in terminology. That is, a very evident theme in the literature of observation in ITT is early field experiences (EFEs), which is an American phrase for student teachers’ placement in schools which involve practical activities such as observing and teaching (see section 3.4). Despite the existence of such a practice in the UK, this wording does not seem to be utilised here. Therefore, since the type of observation investigated in this thesis happens in school placements, light will be shed on the specific characteristics of such observation and experiences.

3.2 Types and purposes of classroom observation

Although classroom observation has different types and purposes (Field, 1999: 50), this research focuses only on pre-service student teachers' observations of experienced teachers and peers in their secondary ITT to learn to teach. However, this section will briefly mention other types of observation and succinctly compare these.

Different terminology and categories have been devised to describe different types of classroom observation. Tilstone maintains that the old-fashioned type of observation, which was associated with assessment, lost ground to partnership observation, which is associated with mentoring (1998: 59). She defines 'partnership observation' as a situation where two colleagues work cooperatively to explore and gain knowledge of what happens in the classroom (1998: 59). Additionally, she makes a distinction between 'inside partners' who teach in the same place as the observed teacher and 'outside partners' who come from outside the institution (*ibid.*). However, she highlights the importance of time for both 'inside' and 'outside' partners to adjust to the new situation (*ibid.*: 62) and she depicts partnership as involving collaboration, sharing, acquiring knowledge from each other and reciprocal encouragement (Tilstone in *ibid.*: 60). Nevertheless, partnership observation will not succeed if the colleague behaves as a dictatorial judge instead of acting as a 'facilitator' (*ibid.*). Additionally, Lasagabaster and Sierra contend that there are two types of observation: top-down, which is done by experts, many of whom are 'removed from classroom realities' and bottom-up, 'where teachers themselves devise and implement their own way of observation' (Lasagabaster and Sierra, 2011: 450). Both partnership observation among inside partners and bottom-up observation correspond to peer observation investigated in this thesis.

Other classifications of classroom observation seem to be based on its purposes.

For instance, Maingay identifies four aims of classroom observation:

- Training, which usually contains ‘directive feedback’ like ‘prescriptive criticism’
- Assessment: which can involve either ‘details or ‘global impressions’
- Development: ‘the main focus will be on re-examining what has been taken for granted, on developing skills of self-appraisal rather than on learning new teaching skills’
- Observer development: the observer ‘wants to pick up new ideas, or wants an opportunity to reflect on teaching through watching someone else’ (1988: 120-121).

‘Directive feedback’ and ‘prescriptive criticism’ may not be as common nowadays as when they were when Maingay made that claim. In fact, such types of feedback and criticism are deeply rooted in an apprenticeship approach, which, although still present in the UK at least, is not as prescriptive as it used to be. Additionally, the difference between observing for training to teach and observing for development can be illuminated by Freeman who maintains that whereas training concerns the acquisition of certain ‘teaching skills’, development concentrates on teachers themselves in the sense of focusing on their reflections and investigation and change to enhance their teaching as well as personal and professional advancement (1982:21). Thus, training and teacher development imply two different sets of assumptions; while training supposes that teaching is a ‘finite skill’, development assumes that teaching is a continuously developing course of growth (ibid.:21-22). Whereas development implies that improvement is in the hands of the teachers themselves, training signifies that improvement can be managed by others (Wallace, 1991: 3).

Another taxonomy is that of Fast who argues that there are mainly two broad types of observation: observation for formal assessment and observation for improving one's practice and that different merits and demerits are associated with each type (2009: 6). Although Fast maintains that one of the good aspects about observation for assessment is that it is conducive to 'accountability', it has three drawbacks: the notion that 'good' and 'bad' teaching can be 'defined', the uncertain utility of observation 'checklists' used in assessment and their 'prescriptive' tendency which may detract from teachers' independence and self-growth (2009: 6-7). Unlike observation for formal assessment, observation for improvement not only tends to be 'descriptive' but also encourages teachers to become more conscious of and 'responsible for' their own growth (ibid.: 7). Another advantage of observation for improvement is it tends to be more 'self-directed' since a focus is agreed between the observer and the teacher (ibid.). It also includes self-observation, which can be done through video, peer and trainer/manager observation (ibid.). Although observation for assessment and for improvement can coexist in the same teacher training course, this thesis focuses exclusively on observation for improvement.

In sum, there are two main types of observation and four main purposes: observing and being observed by an experienced teacher and a peer. The four main purposes of observation are: assessment, research, teacher development and training. This thesis focuses on observation of experienced teachers and peers for training purposes in initial teacher training as part of their journey in learning to teach. Now that types of classroom observation have been briefly discussed, the nature of the type of classroom observation studied in this thesis will be elucidated. This will take the form of illuminating its importance, challenges and a few suggested countermeasures.

3.3 The importance and nature of Pre-service teachers' observation of experienced teachers

The importance of observing other teachers to learn to teach is well documented in the ITT literature:

Teaching has been represented as a cycle of observing, interpreting, and decision making; therefore, skilled observation is important for effective teaching (Robertson & Halverson, 1984). Classrooms are active contexts, and successful teachers need to be skilled observers of students and the environment . . . (Jenkins et al., 2005: 2)

In fact, the most important goal for observation is professional development (Lasagabaster and Sierra, 2011: 450) and the main finding of the Lasagabaster and Sierra Spanish questionnaire-based study (n=185) of language classrooms in a wide range of levels, which aimed to investigate the role of observation and requirements for effective observation (ibid: 449), was that observation was viewed by almost all the participants very positively as a teacher training technique (ibid: 451). Not only can observing another teacher's class enhance the professional development of the observing teacher (Wajnryb, 1992: 1) but also observation is likely to function as a powerful tool for learning practical techniques (Tomlinson, 1995: 47). Observing another teacher's class has the potential of engaging observing teachers in a critical way of thinking (ibid.: 47-48) if their needs, current level of growth and required techniques are considered when selecting appropriate teachers and teaching contexts in order to best improve such teachers' learning (ibid.: 49; Hagger and McIntyre, 2006: 52). A study which investigated 30 student teachers' meaning making of observation in a teacher training programme by Orland-Barak and Leshem not only showed 'evidence of learning at multifaceted practical, pedagogical and educational levels' but also insinuated that observation provided an opportunity 'for taking a stance, for articulating new insights, for triggering connections in teaching and learning, and for confronting educational beliefs' (2009: 31). Additionally, classroom observation of experienced teachers aims not only to make student teachers learn from the observed lessons but also

make them ‘acclimated to the environment’ where they will teach (Pickering and Walsh, 2011: 99).

Although observing experienced teachers in theory is an opportunity when student teachers by being exposed to the skills and fluent performance of expert teachers, are propelled in the right direction in learning to teach, this is not necessarily the case in practice. The potential of observing other teachers in ITT can be diminished by several factors; one factor is the assumption that observation is a natural skill that does not require training. However, observation is a complex skill which encompasses not only seeing but a range of sub-skills such as ‘perceiving, interpreting, assessing, and reacting’ which normally take place concurrently (Malderez, 2003: 179) and student teachers need to distinguish the different skills that the teacher is using, which requires support (Furlong and Maynard, 1995: 183). In other words, learning from observing other teachers is not necessarily an automatic, spontaneous skill since it requires a variety of other sub-skills which can be assisted and enhanced by school mentors and higher education tutors:

. . . It is often assumed, somewhat naively, that the ability to learn through observing classroom events is fairly intuitive. In fact . . . the ability to see with acuity, to select, identify and prioritise among a myriad of co-occurring experiences is something that can be guided, practiced, learned and improved . . . (Wajnryb 1992: 1)

Likewise other researchers emphasise that student teachers’ observation of other teachers is far from an in-born, automatic skill and that it requires sufficient support from teacher educators in order to make it more effective:

. . . Learning about teaching is more than just placing pre-service teachers in contemporary classrooms and asking them to observe. Pre-service teachers need to be scaffolded in the process so they can make sense of their observations, dispel or affirm preconceptions, and engage in learning about teaching . . . Observation is not an innate skill. ‘The fact that a person is equipped with functioning senses does not make that person a skilled observer’ . . . (Young and Bender-Slack, 2011: 333-334)

Due to this misconception, McCallister and Napper-Owen implicitly criticise educators' lack of emphasis on improving student teachers' observational skills despite their importance to improving teaching overall:

Although observational skills have been identified as crucial in the provision of effective instruction (Bell, Barrett, & Allison, 1985), educators frequently assume that the ability to develop into a skilful observer automatically happens during the educational training process (1999: 19).

Therefore, learning precise observation requires 'training' (Tilstone, 1998: 2), continual support and a dispelling of the myth that it is a natural, simple skill.

A student teacher's observation of other teachers is not only an acquired skill, but also it is liable to bias and subjectivity. Observation is not an unbiased activity no matter what observation method is used since 'All seeing is selective' (Fish, 1995: 114), which is echoed in Fawcett's contention that 'we have a tendency to see what we are looking for and to look for only what we know about' (Fawcett in Tilstone, 1998: 6). Indeed, observation is a complex activity due to people's 'selective' and unique ways of conceptualising reality *inter alia* (Malderez, 2003: 181). Thus, the observers' task of producing 'objective', unbiased accounts about classroom incidents and activities is challenging (Sullivan et al 2000: 249). Thus, they recommend conceiving observation as a tool for discussion of different teaching styles and reflection and acknowledging different teachers' 'intentions' and 'perspectives' (*ibid.*) since the observer needs not only 'several differing perspectives on the event' but also 'a range of possible interpretations of it' (Fish, 1995: 114).

Another challenge in student teachers' observations is not knowing what to look for. For instance, pre-service teachers did not always know what to look for or to write down in the Young and Bender-Slack study which investigated a US language arts methods course in K-12, (Kindergarten through 12th grade) classrooms (Young and Bender-Slack, 2011:328). Not knowing what to look for is a 'perennial problem' (Rees,

1997: 94) and a reason for the lack of benefit of observation for ‘many preservice teachers’ (Star and Strickland, 2008: 124). In fact, ‘what matters in observation is what the observer chooses to take note of’ (Maingay, 1988: 122) which is corroborated by other researchers who argue that explicit noticing is vital to professional development since people cannot change their habits if they are unconscious of them (Rosaen et al., 2008: 349). However, since pre-service teachers may fail to notice some fundamental classroom features (Sherin et al in Star and Strickland, 2008: 110), developing noticing should become a goal in ITT ‘by providing “opportunities and structures within which teachers can develop their ability to notice”’ (Sherin and van Es 2005 in ibid.) although they do not provide examples of such opportunities and structures. This chapter presents examples of effective practices for improving noticing and observation in sections 3.4, such as reflection, linking theory to practice, pre and post observation discussion and observation tasks.

A good way to counter the problem of not knowing what to look for is selecting a single focus and collecting data systematically rather than constructing an overall impressionistic judgement. The observer should adopt a ‘focus’ and a task to collect information rather than to evaluate (Richards, 1998: 143). Since what is observed is limited to the observable (ibid.: 141-142), the purpose of observation should not only transcend copying the teaching techniques of expert teachers but also should be to gain a better understanding of teaching via gathering data from the observed lesson (ibid.). This is analogous to Dewey’s contention that classroom observation should be concerned with the ‘psychological’ rather than the practical to gain a better understanding of the complex nature of learning and teaching rather than to enhance replication:

The student should not be observing to find out how the good teacher does it, in order to accumulate a store of methods by which he also may teach successfully. He should rather observe with reference to seeing . . . how teacher and pupils react upon each

other. . . . Observation should at first be conducted from the psychological rather than from the 'practical' standpoint. If the latter is emphasized before the student has an independent command of the former, the principle of imitation is almost sure to play an exaggerated part in the observer's future teaching, and hence at the expense of personal insight and initiative. (Dewey in Taylor, 2001: 188).

This view of student teachers' learning to teach through observation is more congruent with a reflective approach rather than a predominantly apprenticeship model of teacher learning (See section 3.4.5).

There exist other challenges to making the most of observations in ITT. For example, five reasons which can make classroom observation unhelpful were identified by Hagger et al. (1993: 40). The first reason, which relates to experienced teachers, is the fast pace of their teaching performance which makes it seem deceptively simple (ibid.) The other causes, which pertain to trainee teachers, are their lack of knowledge about teaching, their experience of observation as schoolchildren which makes the experienced teacher's class appear misleadingly easy and straightforward, their 'preconceptions' and images of the prospective teachers they aspire to become and their desire 'to learn from their own practice rather than from observing others' (1993: 41). Another potentially problematic aspect which may happen in any classroom observation is the effect of the observer on the observed, which has been demonstrated by Samph, who placed microphones in classrooms before sending observers in a few weeks later. His study discovered that, upon being observed, 'teachers made more use of questions, praise and were more likely to accept pupils' ideas' (Samph in Wragg, 1999: 15). Although the effect of the observer is usually obvious at the beginning of lessons, it usually fades away and is quickly forgotten as the lesson progresses, particularly in present day school culture where observations are a routine occurrence. Lastly, observing classrooms from 'the perspective of a learner rarely provides preservice teachers with knowledge about how teachers think or what they think about' (Masingila and Doerr in Star and Strickland, 2008: 123). This challenge can be attributed to student

teachers' apprenticeship of observation when they were pupils at schools and to their lack of teaching experience, which can be alleviated by spending a lengthy amount of time in the field observing and practising teaching.

3.4 Early field experiences EFEs (school placements)

There are various types and contexts for conducting observation such as school placements or EFEs in ITT. Whereas the former term is normally used in the UK, the latter is more frequent internationally (particularly USA). These two terms are synonymous which is evidenced by two recent UK studies which use them interchangeably (Johnston, 2010: 307; Mtika et al. 2014: 66-67). EFEs, which normally include both field observations and student teaching (Tao and Robinson, 2005: 350), are defined as 'those authentic contexts in which preservice teachers can apply the theory of teaching' (O'Brian et al., 2007: 264). Another definition is 'the regular placement of pre-service teachers in actual K-12 classrooms throughout their teacher education program (i.e., introductory placements, methods courses, student teaching, etc.)' (Young and Bender-Slack, 2011: 325). Generally, these field experiences are not only prevalent in the majority of teacher education courses across the globe but also observation constitute a significant part of them (Young and Bender-Slack, 2011: 325). However, there is a lack of agreement regarding what these experiences are called partly because they vary from course to course (Otis-Wilborn & Winn in O'Brian et al. 2007: 264-265) and country to country; To illustrate, the words 'fieldwork,' 'field experience,' 'practicum,' 'internship,' and 'student teaching' have been utilised to denote 'a student teaching experience and/or an experience in schools prior to student teaching (O'Brian et al. 2007: 264). In the UK, it is typically known as school-based or school-centred placement. Nevertheless, this terminological incongruity can be detrimental 'when examining best practices in teacher preparation, preservice and cooperating teacher

perspectives, and effectiveness of field experiences across different teacher preparation programs' (O'Brian et al. 2007: 264-265). That is, if the same concept like effective observation practices had a different name in another context, its literature and findings may not be considered due to the difference in nomenclature in another context.

Field experiences have many benefits in the literature. They are a crucial opportunity to improve student teachers' observational skills and reflective practices (McCallister and Napper-Owen, 1999: 19) and they are regarded as essential in teacher education courses in the US, UK and elsewhere (Tao and Robinson, 2005: 350), which can be ascribed to the 'implicit trust in the value of practical experiences' for training student teachers (Evans, 1986: 35). Other potential benefits are that they can 'allow the knowledge learned in academic course work to take on greater meaning (Hanline, 2010: 335), help pre-service teachers develop more sophisticated understandings of the teaching-learning process (ibid.), and enhance learning of skills needed to individualize instruction' (ibid.). In them, student teachers can communicate and cooperate with, and learn from experienced teachers in their selected specialisation (O'Brian et al. 2007: 265). Such experiences have the potential not only to involve student teachers in 'reflective practice' (See section 3.4.5) (Young and Bender-Slack, 2011: 15) but also to enhance pre-service teachers' conceptions of teaching and learning (ibid.). In fact, learning from teaching through classroom observation is not only the 'ultimate goal of field experiences' for pre-service teachers but also the ability to verbalise this learning from observations can enable field experiences to 'guide and support their understanding of the relationship between meaningful observations and learning to teach' (ibid.: 16).

However, 'first-hand experience' may not always be helpful and many student teachers in methods courses reported that nothing happened in their many hours of classroom observations (Young and Bender-Slack, 2011: 325). They may reinforce

student teachers' 'pre-conceived stereotypical beliefs' (Buranta and Kirby, 2002: 562) and not all 'experiences are genuinely or equally educative' (Dewey in Buranta and Kirby, 2002: 562). Additionally, 'the focus of preservice teaching during practicum often shifts toward procedural concerns and routine tasks' (Moore, 2003: 31) and away from the more desirable focus on teaching as an inquiry-oriented practice' (ibid.). However, these challenges do not justify discarding student teachers' observations during EFEs/school placements.

3.4.1 Observation approaches in school placements/ EFEs

Two types of early field experiences for pre-service teachers can be found in the literature, unguided and guided. In the unguided type, pre-service teachers 'have little or no direction in what to observe' and they may observe anything interesting or they may have 'general foci such as looking for effective teaching behaviors or the strengths and weaknesses of a lesson' (Anderson et al., 2005: 100). In the guided type, observers have a priori foci 'such as how the teacher handles transitions, whether the teacher gives clear directions or how equitably the teacher asks questions of pupils' (ibid.). Whereas pre-service teachers in unguided observations 'see classrooms through many lenses and get valid understandings of the complexities and realities of teaching', they may have 'little understanding of individual strategies and concepts' (Anderson et al, 2005: 101). However, although in guided observation teachers can 'identify and focus on a single aspect of teaching or learning', they 'may not see the larger context because they observe classrooms using 'a single lens' (ibid.). Another advantage of guided observation according to Jenkins et al. is that pre-service teachers in their American study, which examined 37 pre-service physical education teachers in elementary/junior high school, tended to observe from the perspective of the teacher rather than that of the students when using guided observation (Jenkins et al., 2005: 5). Observing classrooms

from the perspective of the teacher is one of the goals student teachers need to achieve (Hagger et al in Field, 1999: 50).

Once the goals of observations in field experiences are achieved via guided observation, student teachers can start to employ unguided observation to ‘broaden their focuses’ and to enable them to see the classes ‘more holistically’ (Jenkins et al., 2005: 19). By contrast, Young and Bender-Slack’s blended approach supports student teachers to utilise techniques in unguided observation before moving to the guided one in order to attain the strengths from both approaches and to neutralise their shortcomings (Young and Bender-Slack, 2011:330). An example of their blended approach is instructing pre-service teachers to write observational field notes about a broad topic such as ‘describing a literacy event’ or how language is used in a lesson (Young and Bender-Slack, 2011:330). After that, student teachers were required to focus on a specific important event from their general observation notes to investigate it in more depth via ‘weekly written feedback and comments’ and ‘whole-group discussions’ about theoretical links of that topic (Young and Bender-Slack, 2011:330). Although the literature seems to concentrate on the guided type of pre-service observation (Anderson et al., 2005: 100-101), Anderson et al advocate using both types in early field experiences (ibid.). Despite the lack of agreement concerning which type of observation to start with in EFEs, there is an agreement to utilise both. Interestingly, whereas the notion of guided observation seems to correspond more closely to structured, focused nonparticipant and quantitative methods of observation, unguided observation seems more compatible with unstructured, unfocused, participant and qualitative ones.

3.4.2 Structured and unstructured approaches to observation

Alternatively, approaches to classroom observation can be either ‘quantitative’/structured or ‘qualitative’/unstructured (Fish, 1995: 112-113). In a

quantitative approach, a specific observation schedule is used to evaluate the effectiveness or count the occurrence of a priori matters found in the schedule. A qualitative observation schedule however normally involves a blank piece of paper and the investigated matters are decided by the observer normally during the observation even though an observer might have a general idea what to focus on during the observation. However, an unstructured approach is useful for ‘narrowing down an observation focus’ (ibid.). Although ‘quantitative’ observation methods like ‘schedules’, ‘checklists’ and the ‘ratings approach’ claim to be unbiased, they ‘may blind the observer to other issues’ (ibid.: 113) and utilising more than an observation method during the same observation is attainable provided that the observer is ‘systematic’ and strengths and weaknesses of tools, data types, ‘recording’ instruments and ways of utilising them in debriefing are considered (Fish, 1995: 114). Nevertheless, this could be challenging due to the cognitive load created by attempting to use more than one method.

Different scholars have attributed different strengths and weaknesses to structured observation systems. One of the advantages of teaching student teachers to use a category system is making them experience ‘coding events in a systematic way’ (Wragg, 1999: 36-37). Although this can reduce subjectivity since different observers are required to utilise the same observation schedule in a rule-governed way, observers will still need to make judgements which are based on their own individual understandings of what they see. Other advantages claimed for using structured observation are ‘objectivity’, ‘reliability’, ‘self-awareness’, ‘meta-language’, and ‘more effective teacher training and better quality of teaching’ (Wallace, 1991: 75). However, we have seen that, according to Fish, Fawcett, Tilstone and Malderez (See section 3.3), classroom observation is susceptible to bias and subjectivity since observers cannot

distance themselves entirely from their own personal ways of conceptualising realities, preferences and experiences.

Several disadvantages have been associated with structured observation; for instance, Cockburn criticises the use of observation schedules in the light of the view of teaching as ‘artistry’ since observation schedules are more aptly compatible with the view of teaching as ‘technology’ (2005: 381). Another difficulty is that the observation schedule might include too many categories or such categories may not be well explained (Payne, 1943: 233). Other pitfalls include ‘ignoring the temporal and spatial context’, the ‘crude boundaries between categories’, the ‘excessive emphasis on quantification’, the ‘pre-specification of categories’, ignoring the teachers’ ‘intentions’ and being ‘time-consuming to learn or to use’ (Wallace, 1991: 75-76). Additionally, retrospective reporting rather than checklists is better for ‘participation in the learning process’:

... If retrospective reporting, rather than checklists provided by the instructor, is used in the classroom, observations and questions generated by students could guide instruction and perhaps result in greater participation in the learning process (Berg et al. 2002: 277).

Nevertheless, some of the above problems can be overcome through pre and post-lesson discussions (See section 3.4.3), which among other things establish the context, involve the negotiation of a focus between the observer and the observed and complement the system-based methods of observation with qualitative ones.

One form of unstructured observation is ‘participant observation’ which has been put forward in order to counter the drawbacks of the structured approach (Wallace, 1991: 76). Rather than completing checklists and avoiding involvement, the observer

... participates, overtly or covertly, in people’s daily lives for an extended period of time, watching what happens, listening to what is said, asking questions, in fact, collecting whatever data is available to throw light on the issues with which he or she is concerned’ (Wallace, 1991: 76).

In this 'open-ended' method, the observer chooses some important aspects before designing suitable ways for gathering the data (ibid.). In the handbook of the ITT course investigated in this thesis, teaching is considered, in accordance with the government's view, as a research-based profession and student teachers have to think deeply at different schools about what makes for effective teaching and make use of learning opportunities particularly since teaching and schools are changing at a very rapid pace (*Secondary PGCE Course Handbook*, 2012: 18). Therefore, in their professional studies, student teachers were supposed to be shown how they can use research methods such as observation 'to examine concepts of teacher effectiveness' (*Secondary PGCE Course Handbook*, 2012: 21). This can be demonstrated by the handbook's recommendation for adopting a participatory, ethnographic approach to observation, which was originally used as a research method rather than as a learning to teach technique. A similarity of this qualitative approach to observation with ethnography is that the observer, just like an ethnographer, should ask questions, listen carefully, spend an extended time in the field, and gather information and probe issues of interest. It is also more conducive to participation since observers do not have to commit themselves to completing checklists which may require split-second decisions and constant observations of all participants. In addition, qualitative approaches to classroom observation, which are many, attempt principally 'to probe beneath the surface of events, to elicit the meanings, sometimes deeply buried, the interpretations and explanations, significance and impact of classroom life' (Wragg, 1999: 54). However, Wragg warns against the selectivity of our thinking which is not easy to dissipate in qualitative methods but which can be assuaged through 'rigorous scrutiny of barriers to accurate perception' (Wragg, 1999: 54). Despite its advantages, this method of observation is not only more prone to subjectivity than its structured counterpart, but

also is time-consuming and may require some observation and teaching experience in order to utilise it more effectively.

Unlike structured and unstructured observation, which may seem difficult to manage to many a teacher, the ad-hoc method is 'eclectic' since it utilises both (Wallace, 1991: 77). This approach is essentially a 'guided 'discovery' approach in which the trainers devise their own observation system' (Wallace, *ibid.*: 78). Since both methods have advantages and disadvantages concerning subjectivity and level of analysis, combining them to neutralise the shortcomings of both seems like a better idea, provided that this is manageable. A comparison between Fish's and Wallace's ways of categorising observation systems reveals obvious similarities despite the slight differences in terminology. Fish's 'structured' or 'quantitative' methods of observation would be described as 'system-based' observation methods by Wallace and mainly nonparticipant. Nevertheless, Wallace's 'ethnographic' method of observation would be labelled 'qualitative' or 'unstructured' by Fish. However, Fish does not use a specific term for the eclectic amalgam of different methods which Wallace labels as 'ad-hoc'. Since there is a variety of observation systems, observers should think carefully about the 'purpose' and 'focus' of their observation rather than select one simply because it is available (Wragg, 1999: 8). In addition, the strategies used in observation need to not only be compatible with the 'focus' and 'purpose' of observation (Wallace, 1991: 82) but also be feasible (Fish,1995: 112-113).

This brief review of the literature regarding early field experiences points to several directions which can be conceptualised as potentially effective strategies in classroom observation in initial teacher training courses. Such observational strategies include feedback discussions, connecting theory with practice, reflective tools and observation tasks.

3.4.3 Feedback discussions

Many student teachers do not recognise what to focus on in the observed lesson of the professional teacher although they need ‘to gain insight into *purposeful strategies* and their *flexible adaptation* for teaching’ and they require some information about the teaching objectives and reasoning of the lessons they observe (Tomlinson, 1995: 48) before and after the lesson. Therefore, student teachers’ learning will benefit greatly from observation when mutual examination of the observed lesson with observed teachers occurs (Tomlinson, 1995: 38). Field asserts the importance of a post-observation discussion (Field, 1999: 50), which can be exemplified by mentors gauging student teachers’ preparation to employ routines. However, the purpose seems to be purely imitation or apprenticeship here although Field acknowledges that good teaching techniques are not necessarily ‘transferable from one teacher to another’ and that student teachers need to develop their own ‘personalised approach’ (Field, 1999: 51). Likewise, one of the recommendations of the Young and Bender-Slack study, which investigated a US language arts methods course in K-12 classrooms, is providing specific feedback to stimulate reflection on ‘student outcomes and professional growth’, which can be done either in writing or through discussions (Young and Bender-Slack, 2011:334). More specifically, group feedback discussions are an important part of feedback which can promote reflection on teaching and the spreading of good teaching techniques (Pattison et al. 2012: 136). Other scholars have also pointed out the importance of dialogue, which can play a pivotal role in teacher learning in the feedback session. A healthy environment for teacher growth necessitates the possibility and the occurrence of dialogue (Fullan in Roberts, 1998: 228). Put differently, the dialogues teachers have with their inferiors, equals and ‘superiors’ contribute to shaping their teaching identities (Roberts, 1998: 44). Nevertheless, in this dialogue ‘defending what has been done is not only a natural reaction, but is an essential component of the

dialogue during which new meanings are constructed' (Randall and Thornton, 2001: 103). Thus, the teacher and the educator are deemed equal during the dialogue, which if coupled with genuine intentions may alleviate asymmetrical power relationships. Randall and Thornton maintain that the more equal the relationship in the feedback session is, the more effective the feedback itself is likely to be (2001: 9). This social dimension of dialogue is congruous with a social learning theory such as communities of practice and legitimate peripheral participation which conceptualise learning as a social activity and the result of collaboration between individuals in a community rather than as an individual, isolated phenomenon (See Chapter 2 section 2.5.4).

3.4.4 Linking theory to practice:

A common problem among many student teachers is that they 'often struggle with what to record and their critiques in their observations are often superficial and lacking in theoretical connections and analysis' (Scherff and Singer, 2012: 266). However, one of the potential benefits of observation in field experiences is facilitating the linking of theory to practice for student teachers, which will become beneficial when they teach (Young and Bender-Slack, 2011: 325-326). An American study which investigated a secondary physical education pre-service teacher education course shows the importance of their field experience, which helped student teachers to link theory to practice, in improving their observational skills, analysis and ultimately their ability to teach more effectively (McCallister and Napper-Owen, 1999: 19). Another American study which examined a language arts methods course in K-12 classrooms recommends that student teachers associate what they observe in classrooms with what they will actually teach in their own lessons via the observational tools and the blended approach (See section 3.4.1) utilised in their study (Young and Bender-Slack, 2011:335).

Assisting student teachers to link theory to practice in EFEs could be attained through reflection, which is supported by the findings of several studies. For example, Korthagen and Kessels propose achieving such linkages via ‘active reflection on the development of beliefs’ of student teachers (Korthagen & Kessels in Hancock and Gallard: 2004: 282). In a study by Pryor and Kuhn, which analysed comparatively 62 pre-service teachers’ observations of their mentors’ practices, they found that ‘intense practice (i.e. course discussion and reflection)’ utilising pre-service teachers’ field observations was crucial to their aptitude to ‘integrate theoretical understandings in making sense of school observations’ (Pryor and Kuhn, 2004: 256). According to their study, reflection, which will be discussed below, can be one way of providing this link (Pryor and Kuhn, 2004: 257). Another study, which investigated 35 language arts and arts methods candidate teachers’ perceptions about their field observations via analysing their weekly reflective journals and semester-end descriptions, came up with similar results (Tao and Robinson, 2005: 349). The findings of the Tao and Robinson study highlighted the importance of enabling pre-service teachers to ‘establish connections between what they were taught in methods classes and what they observed in the field’ since ‘it is not sufficient to merely espouse relevant literacy development theories in teacher education programs’ (Tao and Robinson, 2005: 361), which is reminiscent of the tension between a teachers’ public beliefs and actual practices.

3.4.5 Reflection in EFEs:

Although reflection has been briefly and generally addressed in the chapter 2 as a mentoring approach (See section 2.3.3), it is discussed here as an effective strategy for student teachers’ observations to learn to teach in their school placements. Reflection is the goal of many teacher education programmes although other words are used like ‘critical thinking’, ‘higher order thinking’, ‘problem solving,’ ‘reflective inquiry’ and

‘judgement’ (Berg et al. 2002: 276). Fostering reflection and incidentally strategies to improve teaching are also the main goals of observation (Lasagabaster and Sierra, 2011: 461). According to Wallace, ‘observation of professional action is essential: it is through reflection on professional action that professional expertise is developed’ (1991: 82.). The importance of reflectivity in enhancing student teachers' observation and analysis skills is stressed by Dewey:

. . . reflective action is the result of the "thinking" process. He [Dewey] indicates that thinking is not something that just happens, but is influenced by situations, personal experiences, and beliefs. Dewey also states that the process of observing actions and the environment, and then making a decision relative to the observation is central to the reflective process . . . (McCallister and Napper-Owen, 1999: 19)

Two implications can be drawn from this account; first, reflection and thinking are not internal processes only that happen in a vacuum; rather, they are affected by both internal (cognitive such as theories) and external (situational which can be exemplified by communities of practice) factors (See section 2.5.4). Second, reflection is a practical concept which requires making a decision based on observation rather than just a thinking process in the abstract.

Dewey defines reflection as the ‘purposeful discovery of facts’ (Dewey in Ray et al, 2006: 32). The importance of reflection can be exemplified by a study conducted by Willard-Holt and Bottomley, which explored ‘differences in reflections of pre-service teachers' teaching effectiveness during a unique field experience’; they concluded that there is a correlation between reflectivity and effectiveness as:

The most reflective preservice teachers were also the most effective, and appeared to welcome the opportunities for growth afforded by this experience-they sought feedback, problem-solved difficulties, tried out potential solutions, and learned from the children more effectively than did the less reflective groups . . . whereas the least effective preservice teachers focused on themselves only and cast blame on those aspects of the task which impeded "their" success (2000: 86).

However, they maintain that reflection needs to be ‘systematic’ and ‘guided’ in order to be able to enhance ‘teaching effectiveness’ (2000: 86).

Although reflection is important, it does not necessarily happen ‘naturally’ since it needs an ‘intervention’ such as ‘coaching’ (Pryor and Kuhn, 2004: 251), which can be defined as ‘providing personalised professional support to teachers through discussion about their practice’ (Lofthouse et al., 2010: 5). In fact, it is challenging for student teachers to reflect on broader social issues:

Once engaged in practice teaching, student teachers’ concerns become more focused on whether or not students like them and whether or not they are doing the task correctly . . . they rarely progress beyond issues of self, task and students to questions of whether or not their practices (or the practices of their mentors) are just or ethical or lead to the improvement of society . . . (Hamlin, 2004: 169).

Likewise, a study which investigated the effect of a critically oriented methods course and early field experiences on 20 physical education pre-service teachers’ conceptions of the teaching–learning process, found that student teachers concentrated on acquiring ‘technical skills’ (Curtner-Smith and Sofo 2004: 134) which could be attributed to some extent to their ‘concern for survival’(ibid.: 135). In another study which examined the influence of field experiences on the beliefs of pre-service science teachers, it was found that ‘critical reflection’ as promoted by Tobin and Kessils (in Hancock and Gallard 2004: 290) which should help them ‘align beliefs with actions’, was not present in their data (ibid.). Indeed, ‘the expectations and demands of everyday classroom schedule’ do not promote ‘reflective and systematic examination’ of teaching and learning since student teachers become ‘bogged down with procedural and management concerns’ in the beginning stages of their field experiences (Moore, 2003: 32). Correspondingly, an ‘emphasis on the broader social implications of educational practices often becomes devalued as the student moves from observation to active teaching’ (Hamlin, 2004: 177).

There is a lack of consensus in the literature about the stage in which student teachers should be encouraged to engage in different developmental activities such as reflection. Curtner-Smith and Sofo suggest that ‘technical skills and language’ be

emphasised at the beginning of the programme and tackling the ‘more radical socially critical issues’ in the later stages of the course once student teachers are ‘technically proficient’ (2004: 137). However, Dewey contends that reflection should be introduced before acquiring technical skills in order to avoid unconscious copying on the parts of student teachers (Dewey in Goodman, 1986: 113-114). Although Dewey was writing a century ago, his ideas, particularly about reflection, were ahead of his age as he was a pioneer of reflective practice and advocated it much earlier than Schön. Another manifestation of the popularity of his ideas now is the waning of the traditional apprenticeship approach which was a very influential approach in teacher training up until the late eighties and early nineties in the UK and other parts of the world.

Since teacher reflection is a ‘blanket term’, attention should concentrate on ‘the kinds of reflection we have pre-service teachers do, what we have them reflect on, and the manner in which we have them do it’ (Scherff and Singer, 2012: 264). Therefore, several strategies which aim to trigger and enhance reflection are mentioned below. One of the suggested methods to enable students to practise reflection in their early field experiences is using frames:

. . . Just as a coach asks a less experienced player to watch a specific movement of a more experienced athlete (i.e. how they hold the racket, where they place the ball, etc.), the frames offer us a way to ask students to consider what they are seeing in schools in a manageable, pointed way . . . (Scherff and Singer 2012: 265).

Some practical vehicles for putting the above mentioned ideas into practice are journal writing, ‘weekly cohort seminars’ (Pryor and Kuhn, 2004: 251) and building the ‘course lecture and discussion on the topics of pre-service teachers’ observations’ (Pryor and Kuhn, 2004: 263). Another suggestion is building on student teachers’ beliefs to enhance their reflective conceptions of social justice (Hamlin, 2004: 170). In her study, which investigated formal field reports written by students in pre-education courses, Hamlin found that critical incident analysis resulted in ‘critical reflection’ (2004: 171)

and that student teachers can practise reflection at different levels which encompass 'broader social and political effects of educational curriculum and methodology' (2004: 177). More specifically, she maintains that critical incident analysis is an example of a technique showing potential for reflectivity (2004: 168) and that it helps teachers in

... shifting from a technical approach of wondering how they are going to teach ... to considerations of how they are going to decide and how they are going to justify what they have decided. Critical incident analysis provides a structure for teachers to identify and articulate their established routines and determine not just their effectiveness, but also their appropriateness (ibid.: 171).

Critical incident analysis can also be used to analyse other teachers' practice and it can be utilised as part of observation tasks, which are another potentially effective strategy in school placements.

3.4.6 Observation tasks

Observation tasks have been proposed by some scholars in order to alleviate some of its drawbacks such as subjectivity. They enable the observer to concentrate on a specific aspect in the lesson and they can be utilised to collect factual information which can protect the observer from making impressionistic judgements (Wajnrbj, 1992:8). Likewise, they can help student teachers not only to avoid producing shallow feedback (Copland, 2008: 15) but also to make their observations more objective and reflective:

An additional way of improving the value of classroom observation is to establish a nonevaluative role for observers through giving them tasks to complete that involve collecting information rather than evaluating performance, and having the cooperating teacher determine what these tasks are. (Richards, 1998: 144).

Similarly, they not only help make student teachers aware of their ideas about teaching but also they foster their 'reflective observation' through a 'cycle' which involves extracting theories from the observable before trialling these hypotheses in practice (Kolb in Swan 1993: 243). In fact, classroom observation can be used for reflective purposes through the collaboration between the cooperating experienced teacher and the observing student teacher who does tasks which involve collecting information about

specific foci which are agreed on beforehand and which are discussed in the debriefing session as a basis for reflection (Richards, 1998: 144). Some strategies which can be used in gathering data are:

- Time samples: at specific ‘intervals’, the observing teacher writes down what is happening
- Coding forms: when a particular action is shown, the observing teacher marks it in the relevant section on an observation schedule
- Descriptive narrative (broad): The observing teacher provides a written account of the general happenings in the lesson
- Descriptive narrative (specific): The observing teacher writes a description of a certain incident or event in the lesson (Richards, 1998: 145).

Despite the apparent overlap between reflection and observation tasks, they are not the same since observation tasks are not a goal and they represent one way of triggering reflection and eventually better observation and teaching whereas reflection is a goal in its own right.

3.5 Peer Observation

Observing peers was an important innovation in the ITT course examined in this study. The ITT team were trialling a new approach which involved the introduction of a type of peer observation in student teachers’ first school placement, called collaborative paired placement in 2012/13. Where possible, student teachers went into schools as pairs, and the pairing was based on their subject specialism. This contrasted with the previous approach where, although pairs of students were often attached to subject departments, the pairing was not so actively exploited for training purposes. In the collaborative paired placement, student teachers were required to function as a pair,

planning lessons together, co-operating on their delivery as well as watching each other teach and jointly evaluating the lesson. One of the initiatives which inspired this innovation was the development of lesson study. Their second, longer placement which extended over the spring and summer terms, in contrast, involved solo teaching.

Peer observation can be defined as a ‘collaborative, developmental activity in which professionals offer mutual support by observing each other teach; explaining and discussing what was observed; sharing ideas about teaching; gathering student feedback on teaching effectiveness; reflecting on understandings, feelings, actions and feedback and trying out new ideas’ (Bell in Bell and Mladenovic, 2008: 736). Another definition is ‘a process by which an educator observes the teaching of another educator (usually a colleague), with the purpose of providing constructive feedback on the teaching process’ (Swinglehurst et al., 2008: 383). Although these two definitions were mentioned in the context of higher education, there are two reasons for citing them. The first is the literature searches identified very little literature on peer observation as part of secondary ITT in the UK for the purpose of training. Second, there are many aspects in the two definitions which are relevant to the context of ITT; in both definitions and contexts, this process involves observing a colleague, who can be perceived as somebody with a similar or equal status in terms of power and experience, and discussing the observation with that colleague afterwards and sharing ideas with them in order to improve each other’s teaching. Additionally, in both contexts peer observation should be a collaborative, mutually supportive activity which involves reflection and practical innovation in pedagogical practice. Collaboration, mutual support, sharing of new ideas and discussions highlight the importance of conceiving of learning to teach as a basically social activity in a community of practice where learning is acquired incrementally and is rooted in the here and now of its own context (See section 2.5.4).

Different researchers have classified peer observation into several models, which is reflected in terminological differences. Cosh contends that one model of peer observation is assessment in the US or appraisal in the UK, which have acquired negative associations due to their 'judgemental and threatening nature' and emphasis on accountability rather than teacher development (1999: 22-23). This model is not compatible with the collaborative, mutually supportive model of peer observation in the definitions cited above. Another model is colleague observation that is based on a backdrop of mutually accepted conditions and is accompanied by productive dialogue (Cosh, 1999: 24). Similarly, pair mentoring, which involves observing each other's class, talking about shared topics and designing new teaching techniques, is less intimidating (Cosh, 1999: 24) than the assessment one. Another type of peer observation is videoed lessons, where certain segments are discussed in the lesson based on certain considerations in order to procure suggestions for improving practice (Cosh, 1999: 24). Despite this, they are still based on the conception that people develop if they receive input from others, which makes sense during student teachers' initial teacher training, although reflection is also very important at that stage (Cosh, 1999: 24).

Another classification of peer observation comprises three categories: 'evaluative', 'developmental' and 'collaborative' (Gosling in Chamberlain et al., 2011: 190). Whereas the 'developmental' model requires that an experienced mentor observe and aid a novice teacher to improve their teaching, 'collaborative' peer observation necessitates the cooperation of two teachers with a similar amount of experience to improve their teaching (Chamberlain et al., 2011: 190). However, Siddiqui et al., contend that evaluative and developmental models do not belong to peer observation due to the difference in power and status between the observers and observees (Siddiqui et al., 2007: 297). Therefore, their position seems more logical if we conceptualise a peer as someone with a similar status or amount of experience.

Peer observation has many advantages which justify its coexistence with observation of experienced teachers. It may augment reflection in order to develop one's teaching (Anderson et al., 2005: 98) and one of its functions is instigating 'self-reflection' and 'reflective practice' (Sivan and Chan, 2009: 253). It can be used as a reflective tool for new teachers (Peel, 2005: 489) and, in a reflective setting, it enhances 'self-reflection and self-awareness' since the observing teacher can concentrate on their own development (Cosh, 1999: 25). This could be done through rethinking one's own teaching style on the basis of others', which fosters reflection, 'a questioning approach' and experimentation (Cosh, 1999: 25). The part 'the other' can play in enhancing one's own reflection cannot be overemphasised (Peel, 2005: 498). Since engaging in 'critical thinking' can be laborious, help from peers is essential (ibid.). The other can provide a 'mirror onto our actions from an 'unfamiliar psychological vantage point' (Brookfield in ibid.) and also can 'help us to interpret and to question our ideas and actions' (Peel, 2005: 498). Indeed, the 'learning opportunities will be affected by the status and 'competency' of the peer' (Peel, 2005: 498). A reflective model of peer observation needs to be 'formalised'; that is, teachers should decide in advance its frequency or amount, who to observe, its 'arrangement' and 'focus' (Cosh, 1999: 25). There should also be some kind of feedback and discussion, which can be exemplified by 'seminars, discussion groups, feedback forms and pre- and post-discussion' with the observed teacher provided that the focus is on what the observer learnt or thought about (Cosh, 1999: 25). Other conditions to increase the effectiveness of peer observation include being voluntary, to enable the observer to choose who to cooperate with (Richards, 1998: 147-148) and not only observing and being observed but also a pre-observation and a post-observation discussion between the observer and the observed (ibid.) which is reflected in the definitions of peer observation cited above. The observing strategy

used should be the same one that has been discussed and accepted by both the observer and the observed (ibid.).

Another advantage of peer observation is evident in a mixed-methods study in the US which investigated the attitudes of experienced and novice teachers to peer observation as a means of professional growth at the secondary level (Bourne-Hayes, 2010: 147). Qualitative data from his study show that peer observation encourages collaboration and collegiality and ‘creating a professional community of effective practices’, as opposed to isolation, and consequently this enhances pupils’ learning (Bourne-Hayes, 2010: 147).

Another American exploratory mixed methods study explored the perceptions of forty seven art and special education students regarding the usefulness of peer observation in a pre-service teacher education course (Rauch and Whittaker, 1999: 67). That study concluded that student teachers found peer observation helpful in developing their teaching and the ‘comfort level’ they experienced in it as observers was also favourable (Rauch and Whittaker, 1999: 67). Student teachers in their study believed that the knowledge they obtained from peers was as beneficial as, albeit different from, the one they acquired from experienced teachers and supervisors (ibid.: 76). However, such learning can be fostered if the cooperation between peers is demonstrated and applied over the course and if student teachers can talk about and reflect on their observations (ibid.). Another mixed-methods study conducted in a school-university partnership in Hong Kong, which involved 59 self-administered questionnaires and 40 semi-structured interviews, investigated student teachers’ views about the role of supervised teaching practice and peer teaching in a teacher education course (Sivan and Chan, 2009). It identified the following advantages of peer observation:

- Opportunity to observe others’ teaching
- Awareness of one’s strengths and weaknesses
- Enhancement of reflection [on their own teaching]
- Exposure to real classroom situations

- Linking theory and practice . . . (Sivan and Chan, 2009: 256-257)

The association of peer observation with reflection has been noted by several authors and was expanded on in this section. It can ‘sharpen’ observation by making it more meaningful (Anderson et al., 2005: 98) since it yields more frequent feedback, lessens nervousness and discomfort which may accompany observing experienced teachers and ‘can develop mutually supportive bonds as the peers grow and develop’ (ibid.). This highlights the importance of the concept of asymmetrical power relationships which should be less evident among peers. Another important feature of peer observation is that peers are observing people who are at a similar stage of development to their own. Thus, much of what they observe has immediate relevance to the challenges and issues they face, making the observation particularly meaningful and a rich source of material for useful debate, reflection and discussion.

In short, both observing experienced teachers and peers can serve as effective ways of learning to teach although it is challenging to provide an accurate account of the distinctive strengths and weaknesses of each since they share many benefits. However, observing peers according to the above cited literature seems more conducive to collegiality, collaboration, reflection between the observer and the observed than in observing experienced teachers.

3.6 Conclusion

This review has found that an observation type is an overarching concept such as partnership/peer observation and observing experienced teachers. Within the same observation type, observation can have different purposes (assessment, research, training and development) and different approaches (quantitative, qualitative, structured, unstructured, guided and unguided). It has also been shown that observing

experienced teachers and peers can act as a very powerful means of enhancing student teachers' professional training and development. However, like teaching, observation is not an automatic, simple skill and it is susceptible to subjectivity, bias and lack of focus. Since it is an acquired, complex skill, refining one's observational skills requires training and support during ITT by university tutors and school mentors (Young and Bender-Slack, 2011: 325). Despite the importance of paying attention to teachers' attitudes and beliefs regarding observation (Lasagabaster and Sierra, 2011: 449) and the fundamental role of student teachers in school-training institution partnerships, student teachers' perceptions have not been investigated adequately (Sivan and Chan, 2009: 251). This is evidenced in the literature cited in this review which was limited particularly in relation to ITT and peer observation for the purpose of training. A limitation in the literature for this study is the prevalence of international research compared to the UK where the focus has been more on observation for assessment and higher education. Therefore, to contribute to addressing this gap in the literature, this study aims to identify observational practices deemed effective not only by student teachers but also by their university tutors and mentors in a UK secondary ITT course. Several potentially effective strategies have already been identified in this chapter such as feedback discussions, linking theory to practice, reflection, observation tasks and a combination of structured and unstructured observation. Since these strategies are not exhaustive, the exploratory nature of this study required the participants not only to evaluate these strategies but also to add their own. A secondary purpose of this study is discover which type of observation of other teachers participants found more effective for learning to teach.

4. Methodology

4.1 Introduction

The methodology of a research study requires a research design, which is ‘the overarching plan for the collection, measurement and analysis of data’ (Gray, 2009: 132). However, this definition seems more relevant to quantitative research due to the concept of measuring and it does not seem to account clearly for qualitative research, which constitutes a significant part of my study. Another more relevant definition to this thesis is the ‘plans and the procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis’ (Creswell, 2009: 3). In other words, research design, which covers all the available choices of research for researchers, should allow the identification and execution of specific methods based on the general principles and concepts governing the research.

Although an important goal of research methods is to enable us to make sense of ‘social reality’ (Hartas, 2010: 17), overemphasising the role of methods at the expense of ‘research as an inquiry’ might prove counterproductive since it is vital that research methods are compatible with both the goals and ‘circumstances’ of research (Hartas, 2010: 18). The criteria for choosing a method should be based on the ‘situation’ and the ‘research questions’ (Gorard and Taylor, 2004: 2), rather than their inherent value per se as no method is better than another unless its appropriateness to the research questions and the particularities of the context are considered although there are intervening factors that might influence choosing a method such as the researcher’s values, attitudes and beliefs, which should be minimised, for they represent potential sources of bias. Put differently, the relationship between ‘inquiry’ and ‘methods’ is not straightforward since normally it is repetitious and ‘symbiotic’ because either one of

them can change and be changed by the other (Hartas, 2010: 18), which suggests that a good choice of methods is not an easy, linear process.

In this chapter, the research, the philosophical paradigm of the methodology, the research methods and a rationale for mixing methods will be discussed. Then some important concepts in this research will be introduced together with an explanation of how they were addressed such as validity and reliability. Sampling procedures and the reasons for using purposive and volunteer sampling will be discussed before arguing for adopting content analysis for analysing the interview transcripts. The chapter will conclude with ethical issues of this research.

4.2 Overview of the research design

Before discussing the philosophical paradigm of the methodology, an overview of this study will be presented. This study is exploratory since it attempts to discover what the data show rather than confirms an anticipated finding built on a theory (Robson, 2011: 419). I sought to obtain a rounded view of the research topic by viewing it from the perspective of three key stakeholder groups in a UK ITT secondary course, which included three 2012-13 cohorts: university tutors and school mentors and student teachers (See table 1). Although the school mentors had much more direct contact with student teachers and their training than university tutors, both roles were important for this study. School mentors had many responsibilities such as training, assessing, observing and supporting student teachers regularly, whereas university tutors were offering advice and observing student teachers once per placement and intervening if a student teacher was struggling in their training (See Appendix 1 for a detailed explanation of mentors' and tutors' roles in the course).

The utilised methods were semi-structured interviews and a questionnaire, which were piloted and complemented later with document analysis of the official course

handbook. A closer look at the research overview table, (table 1), reveals some time gaps between piloting the questionnaire and interviews and the actual conduct of the study. This was caused by the evolution of the research questions and the consequent change in the methodology to accommodate that development. Whereas this study previously aimed to be comparative of two ITT courses in Syria and the UK and did not have an overarching research question, it became specific to a UK context and focused mainly on perceptions of effective observation practices in that course. Having overviewed the research design briefly, the next section will justify mixing methods in this study.

4.3 A pragmatic paradigm

In addition to the fitness of the research methods to the purpose of the research, another factor governing a researcher's choice of research methods is one's own philosophical paradigm, which can be thought of as a 'world view, a general perspective, a way of breaking down the complexity of the real world' (Patton in Hartas, 2010: 16). Although a paradigm offers a perspective to reduce the multifaceted-ness of social phenomena, it limits the 'scope of inquiry' (Hartas, 2010: 16-17). That is, social phenomena are very complex due to the vast number of variables they consist of; therefore, examining a given phenomenon through a particular lens facilitates making sense of it because this limits the number and nature of mental frames or conceptions utilised and imposes some kind of structure on our thinking processes and the phenomena we are investigating. However, studying a certain phenomenon via a given perspective also minimises the number of possible mental processes and conclusions, which could be arrived at via different perspectives. However, it is important to make one's philosophical stance explicit since this enhances the researcher's consciousness of

‘the deeper meaning and commitments of what they say or of how they conduct their research’ (Pring, 2000: 89).

Three main philosophical systems resulted from the quantitative-qualitative schism in relation to how much they think different research approaches can be mixed: ‘purists, situationalist and pragmatists’ (Onwuegbuzie and Leech, 2005: 376). Pragmatism in relation to mixed methods research lacks a homogenous ‘unitary vision’ (Denscombe, 2008: 273) as its everyday meaning, which implies attempting to achieve results regardless of ideology, ‘ideals and moral standards’, is not entirely false, but it does not agree fully with the philosophical understanding of pragmatism (Elkjaer, 2009: 76). Therefore, the notion that ‘anything goes’ is neither compatible with the philosophical meaning of pragmatism nor should it be linked with mixed methods (Denscombe, 2008: 274) as it substitutes reflective mixed methods practice for convenience (Denscombe in Hall, 2013: 16) and threatens the trustworthiness of research design and results (Lipscomb in Hall, 2013: 16). On the other hand, the philosophical interpretation of pragmatism pertains to the ‘understanding of the meanings of phenomena in terms of their consequences’ (Elkjaer, 2009: 76). Dewey, Peirce and James value the importance of practical and empirical results in conceptualising philosophical concepts and consequently in determining what to do next ‘to better understand psychological, social, and educational real-world phenomena’ (Johnson and Onwuegbuzie, 2004: 17). Although pragmatism does not preclude that learning can be ‘habitual’, cognition and action are closely related in an ‘anticipatory and reflective’ manner rather than as merely abstract and general theories, in its philosophical sense (Elkjaer, 2009: 77).

Some important characteristics of the philosophical meaning of pragmatism are:

- it repudiates ‘traditional dualisms’,

- it acknowledges both the physical world and the social, psychological one,
- it conceptualises knowledge as being constructed and affected by the real world,
- it advocates ‘fallibilism’ which means that research findings are not usually regarded as ‘perfect, certain or absolute’,
- it conceptualises theories instrumentally in the sense that they can be true or false depending on their current workability,
- it approves ‘eclecticism and pluralism’ of divergent even clashing ideas as long as they are beneficial in gaining a better understanding of ourselves and our world,
- it views human inquiry and our everyday ‘interactions with our environments’ as similar to research inquiry as we endeavour to figure out what works for us and what solves problems to obtain tentative answers or evidence; eventually, scientific inquiry brings us closer to ‘larger truths’,
- it has a strong affiliation with strong and practical empiricism as an approach to find out what works,
- it considers the present truth and knowledge as tentative, uncertain and changeable,
- it makes a distinction between Truth, or the final opinion and truths, which are acquired via experience and experimenting in the present,
- it considers ‘instrumental truths as a matter of degree’ rather than stagnant as they could prove to be false in the future,
- it favours action over philosophising,

- it assumes a ‘value-oriented’ stance to research stemming from culture and fosters such common values like democracy, freedom, equality, and progress,
- it advocates practical theory which underlies effective practice, ‘(praxis)’,
- it refutes ‘reductionism’ which reduces us and our beliefs merely to ‘neurobiological processes and
- it advocates that ‘organisms’ adjust to novel situations and environments via a dynamic but ‘infinite loop’ of ‘belief, doubt, inquiry, and modified belief’ (Johnson and Onwuegbuzie, 2004: 18).

It should be noted that linking pragmatism with learning by doing or trial and error eliminates thinking or Dewey’s concept of behaving in an ‘intelligent’ way by making use of theories and concepts, which enable us to think about, anticipate and reflect on action (Elkjaer, 2009: 77). For Dewey, the world is in a state of constant change, which necessitates ‘adaptive behaviors’ from people, which explains his emphasis on the role of inquiry in addressing this uncertainty (Hall, 2013: 17). Nevertheless, Dewey’s main goal is to transcend experimentation into the more advanced stage of ‘intelligent action’ (Hall, 2013: 17). He believes that people need to act intelligently in response to challenging situations and that inquiry involves initial theories created via ‘anticipatory imagination’ of results, which are examined practically rather than as only trial and error (Elkjaer, 2009: 77). The concept of intelligent action acknowledges that inquiry occurs among communities of people, whereby ‘coordinated communication’ is fundamental to addressing problems (Biesta & Burbules, 2003; Johnson & Onwuegbuzie, 2004; Morgan, 2007 in Hall, 2013: 18). Reflection, which is defined by Dewey as an ‘active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of grounds that support it, and the further conclusions to which it tends’ (Dewey, 1910 in Hall, 2013:

20), is fundamental to 'intelligent inquiry' and his principle of credibility (Murphy, 1990 in Hall, 2013: 21). Dewey's pragmatism is pertinent to mixed methods as his concept of 'intelligent action' promotes reflection, ethics and social justice and because his principal goal is dealing with societal problems intelligently (Hall, 2013: 17). In other words, strategies used for mixing must be able to be adjusted intelligently and 'assertions' resulting from them must be re-examined to test their credibility (Hall, 2013: 20).

Pragmatism is the main philosophy for mixed methods research (Johnson et al, 2007: 113) since it does not subscribe to only one system of philosophy and reality or type of methods (Creswell, 2009: 10-11). In addition, pragmatists consider the separation between quantitative and qualitative methodologies artificial and they repudiate the notion that quantitative approaches must be positivist and that the qualitative ones have to be 'hermeneutic (Onwuegbuzie and Leech, 2005: 377). Moreover, there is no identical correlation between the theory of knowledge and research instruments (Onwuegbuzie and Leech, 2005: 382) and the reason for adhering to one paradigm is due to the researcher's degree of commitment to the philosophical underpinnings of their position and the way they have designed their research to achieve their objectives rather than to research objectives as such (Onwuegbuzie and Leech, 2005: 381).

Rather than relying on 'Grand Theories', for pragmatists the situation dictates which theories are useful for understanding and analysing a given problem, which can be combined and used experimentally to change a complicated situation into a manageable one (Elkjaer, 2009: 77). However, experimentation should be used intelligently in accordance with Dewey's principle of intelligent action rather than in a trial-and-error fashion. The deciding factor for mixing methods should be the suitability

of such mixing in addressing the fundamental research questions (Johnson and Onwuegbuzie, 2004: 16). Indeed, the research questions need to determine the methods rather than the other way round as methodological approaches are only instruments at our disposal whose purpose is to improve our understanding of social phenomena (Onwuegbuzie and Leech, 2005: 377). Since different research approaches suit different purposes, there is a need to adopt a 'needs-based or contingency' approach for selecting methods (Johnson and Onwuegbuzie, 2004: 17). In mixed methods research, the philosophical constructs should be associated with how the research methods are employed in order to guide creating questions, understanding and explaining data and their validity (Lipscomb in Hall, 2013: 16).

In fact, many are the advantages of pragmatism for mixed methods. For example, pragmatic researchers are more likely to merge empirical and descriptive precision and the 'macro and micro' dimensions of a research study and to utilise a method to validate the findings of another (Onwuegbuzie and Leech, 2005: 383-384). They are also more likely to be flexible in their choice of research instruments, to conceptualise research holistically and to encourage cooperation among researchers irrespective of philosophical perspective (Onwuegbuzie and Leech, 2005: 383-384). On the other hand, there are some disadvantages of pragmatism such as fostering 'incremental' change instead of a drastic one and their notion of 'workability' can be unclear (Johnson and Onwuegbuzie, 2004: 19). Despite the possibility of nebulosity of the term workability, the advantages of adopting a pragmatic approach to mixing methods far outweigh its disadvantages, which can be exemplified by being flexible, holistic and more likely to be aware of and make use of an arsenal of different research tools particularly suited for their research questions (Onwuegbuzie and Leech, 2005: 385).

To sum up, it has been shown that pragmatism is not a simple concept with a unified perspective which is exemplified by the difference between its everyday meaning of what works or anything goes and its philosophical one despite some similarities between them such as being interested in results and not adhering to only one philosophical perspective or principle. An important characteristic of the philosophical meaning of pragmatism is Dewey's concept of intelligent action. This concept posits that we live in a constantly changing world which requires adaptation to cope with its challenges and such adjustment should be done reflectively by choosing suitable choices from possible alternatives such as employing different research methods to suit one's research questions. After all, for pragmatists, there is no identical relationship between a philosophical perspective and a research method and such misconception stems from one's own personal commitment and approach in designing methodology. It was also shown that pragmatists possess many advantages in regard to mixing methods such as being more flexible, holistic, cross-verification and expanding of findings, and making use of different research methods to address their different research questions. Pragmatism and mixing methods were appropriate to the research questions of this study as the main one focused on exploring participants' views in depth through the semi-structured interviews whereas some of the secondary questions, such as measuring student teachers' preferences to their favourite type of observation was predominantly dealt with quantitatively via the questionnaire. Moreover, finding from both approaches were combined holistically to verify and to expand on each other and eventually to arrive at a more comprehensive picture and understanding.

4.4 Research methods

Although, chronologically, the questionnaire was administered prior to interviews, it will be addressed after them, since it was the secondary means of data collection in

terms of importance and contribution to answering the research questions unlike the in-depth interviews in.

4.4.1 Interviews:

There are several reasons for utilising interviews in this research; interviews can be used to collect richer information about a participant's 'knowledge, values, preferences' (Cohen *et al.* 2011: 411) than a questionnaire is likely to contribute and are best used when the purpose of the research is to investigate 'respondents' attitudes' (Gray, 2009: 270). This is consonant with the aim of this study of exploring student teachers' mentors and tutors' opinions and perceptions. Interviews have the potential to create a 'relaxed context for exploration' (Koshy, 2010: 88), particularly if they are used in an unstructured or semi-structured way and they can also be very productive if participants prefer to talk reflectively rather than 'having to commit themselves in writing' (Gray, 2009: 270), which was the case with many research participants who seemed to like a friendly, relaxed chat.

Since the interviewer can clarify what would be otherwise ambiguous (Gorard and Taylor, 2004: 5), interviews can counterbalance such a weakness in the use of questionnaires. In addition, follow-up interviews have the potential to complement the data collected previously from questionnaires and they can result in 'unexpected but useful perspectives' (Koshy, 2010: 88). These exploratory and complementary functions of interviews are not only good reasons for using interviews but also support a mixed-methods design (see section 4.5). Interviews can generally be more useful than questionnaires if the questions are 'open-ended' and complicated (Gray, 2009: 271), which corresponds to the open-ended nature of the main research question.

Since all research methods have their own shortcomings, being aware of their limitations can help to minimise them. For instance, interviews take a great deal of time

to conduct and transcribing them is a time-consuming process (Koshy, 2010: 88) as they require logistical arrangements such as finding suitable times and locations for both the interviewer and the interviewee(s), which can be exacerbated if the researcher has to conduct many of them in a specific time frame. This problem was addressed in the present study by having access to student teachers' timetables and contacting them beforehand to arrange for interviews in their least busy times. Concerning arranging interviews with university tutors and mentors, it was less challenging as they were fewer in number.

Another possible problem with interviews is that they can be susceptible to 'subjectivity and bias' on the part of the interviewer (Cohen *et al.* 2011: 411) since one of the problems with interviews is the 'unique' understanding and beliefs of the interviewer which 'filter' the interviewees' contributions and may result in the interviewer's failure to 'grasp the significance of what is said' (Pring, 2000: 40). This problem was alleviated by mixing different research methods and triangulating these thereby enhancing the validity and reliability of the research via 'peer debriefing' and audit trail (Creswell, 2009: 191-192; Robson, 2011: 158-159) (See sections 4.5, 4.6 and 4.7).

Semi-structured interviews were utilised since they provide a middle ground between structured or '*focused* interviews and *informal conversational*' ones and because they can involve both 'carefully worded set questions' and 'open ended' ones (Tilstone, 1998: 51), which form the basis for further elicitation and exploration. They not only tackle broad topics but also provide interviewers with great 'flexibility' in talking about these topics (Borg, 2006: 189-190) and they enable the interviewees to 'expound the full significance of their actions' (Pring, 2000: 39). Drever identifies the following characteristics of this type of interviews:

- a very flexible technique, suitable for gathering information and opinions and exploring people's thinking and motivations
- yields rich information and guarantees good coverage
- takes time to do and analyse and so requires realistic planning
- cannot cover large numbers . . .
- requires a degree of skill (but that comes with practice) . . .
- can be used along with other methods (1995: 8).

Accordingly, interviewees were able to expand on their ideas and in most cases further questions were asked about them. This resulted in making many interviews long since although an average interview lasted for about 35 minutes, some lasted for more than an hour.

An important requirement for conducting interviews is attending to the interviewee's thoughts (Stake, 1995: 65-66) since the interviewer needs to allow interviewees to express themselves and explore their own ideas sufficiently rather than interrupt them frequently and disrupt their flow of thinking. Additionally, attending carefully to an interviewee's ideas may serve as a springboard for further questions to elicit new insights. Another prerequisite is writing notes (Stake, 1995: 65-66) which can be difficult due to the other activities the interviewer might be engaging in simultaneously, such as listening carefully to understand the interviewee's message and preparing new questions. Therefore, although I was audio-recording the interviews, I preferred to avoid writing notes during interviews to concentrate on understanding the participants' messages, which I utilised as a basis for asking them improvised questions. However, notes were taken during the transcription process to capture initial insights and to start the analysis stage as soon as possible

Another interview requirement is 'staying in control' (Stake, 1995: 65-66) which can be difficult since it involves knowing when to allow the interviewee to keep talking and when to stop them politely to move to another point or to steer them back into relevant issues. This happened often when the research participants either tried to

elaborate on an irrelevant point or when they tried to elaborate on a point which came later in the interview schedule or when an interviewee elaborated excessively on a relevant point at the expense of others.

A further requirement for interviews is understanding what the interviewee means by repeating questions where necessary (Stake, 1995: 65-66) or seeking confirmation of perceived meaning, which can be regarded as member checking during the interview process. This was achieved by frequently seeking confirmation of my understanding of respondents' ideas, which often resulted in useful clarifications and resolved misunderstandings.

It should be noted that the ultimate success or failure of interviews depends heavily on the interviewing skill of the interviewer (Koshy, 2010: 88). Conducting interviews also requires a 'strong advance plan' (Stake, 1995: 64) and since different interviews will trigger 'experiences', the qualitative interviewer will need to have in advance a group of 'issue-oriented questions' and 'probes' which elicit valuable answers, which is a 'special art' (Stake, 1995: 65). The interview questions were not only accompanied with prompts but they were used extensively such as clarifying the concepts of observation tasks and structured observation.

4.4.2 Interview procedures

Two different versions of the interview schedule were developed, one for tutors and mentors and the other for student teachers due to the difference of roles between them. The process of identifying student teacher interviewees was implemented through the questionnaire, which was distributed in January 2013 (see section 4.4.5). In the questionnaire, student teachers' names and email addresses were requested if they agreed to be interviewed and a small financial incentive was offered for their time. This resulted in 39 contacts, 18 of whom agreed to be interviewed when contacted later. The

first round of interviews took place during the 2013 February half term holiday. Times and places were negotiated with the student teachers and all the interviews were conducted on a one-to-one basis.

At the beginning of interviews, the interviewees were provided with a general idea of the research without overwhelming them and they were also supplied with a voluntary informed consent form to read and sign if they agreed to its terms. All interviewees were requested to be audio-recorded. During the interviews, I listened for the most part, asked questions about unclear issues, asked improvised questions which seemed important or relevant but were not in the original interview schedule and asked questions to clarify misunderstandings. To answer a sub-research question about the change in student teachers' perceptions, a second round of interviews with student teachers was undertaken. Therefore, the 18 interviewees from the first round were contacted again by email. A suitable time for the interviews, the summer half-term school holiday in 2013, between the end of May and beginning of June, was chosen and resulted in 9 agreeing to a second interview. However, the questions of the second round were modified slightly since not all the previous questions from the first round were relevant at this point.

4.4.3 Protocols of transcription

The 40 audio-recorded interviews, were transcribed manually to avoid inaccuracies as much as possible. I listened to some audio segments carefully several times in cases of confusion or lack of clarity. However, when it was impossible to understand what was said either the word or words were replaced with ellipsis or, much less frequently, an alternative word was supplied if the context was sufficiently helpful in providing clues. Also, many fillers were omitted such as 'you know' and 'I mean' due to their lack of contribution to the meaning and the large amount of data. The other

omitted parts were texts which were not relevant to the research questions such as establishing rapport with participants, details which revealed the identity of respondents and misunderstandings on the part of interviewees. Other changes in the interviews were deleting the names of specific people and the name of the university that conducted the ITT. All interviews were transcribed by me which added consistency to the transcriptions used and to allow me to start reflecting on the data as early as possible.

4.4.4 Questionnaire

Questionnaires may be used to provide ‘a straightforward ‘descriptive’ account of the wider framework’ (Gillham, 2008: 38) and unlike interviews, questionnaires are more effective if ‘large numbers of respondents must be reached’ and if ‘better reliability of data is required’ (Gomm, 2004: 166), which were essential to this study to strengthen its findings. The other reasons for choosing a questionnaire are its relatively ‘low cost in terms of time and money’, the fast ‘inflow’ of data from a big population, the relative ease of analysing closed questions, the ‘anonymity’ of participants and the lesser degree of bias than in interviews (Gray, 2009: 338-339). A questionnaire also can be used to gather ‘background and baseline information quite easily’ (Koshy, 2010: 84) and it can facilitate other methods like follow-up interviews because participants can be identified through them to take part in interviews to explore issues that require further investigation.

As with interviews, questionnaires have drawbacks such as the limited ‘control’ the researcher has not only over the respondents but also the ‘guidance’ (Gomm, 2004: 157-158) as the researcher may not be available to explain unclear wording or answer questions which respondents may have. Therefore, any covering letter needs to be as

comprehensive and informative as possible without being too long which may deter respondents from reading it, which was the case in this study.

Second, the questions themselves need to be as clear as possible and leading questions should be removed (Lewin, 2005: 220). However, some terms which seemed clear to student teachers who participated in the piloting stage of the questionnaire proved ambiguous to some of the student teachers in the actual implementation of the questionnaire, such as structured, focused observation and observation tasks, and these were clarified in the interviews.

Third, a questionnaire's closed questions tend to be shallow and 'they also offer little scope for discovery, for the unexpected, since the answers are already ready-made' (Gillham, 2008: 30). This problem may be counterbalanced by mixing methods and triangulation (see section 4.5). Other potential problems in questionnaires are low response rates, particularly if the questionnaire is long due to some people's preference for verbal communication, and the researcher's lack of ability to discover respondents' 'flippant, inaccurate or misleading answers' (Gray, 2009: 339).

Other demerits of using questionnaires are the 'subjectivity' of the questionnaire designer, the demanding skills which are required particularly when analysing open-ended questions and the respondents' tendency to choose what they think the researcher 'wants to hear' (Koshy, 2010: 84). These were addressed by refining the questionnaire through multiple drafts and piloting.

4.4.5 Questionnaire procedures

The questionnaire (see appendix 5) was based on the research questions, which is reflected in how the majority of the questions are comparative; for example, questions about observing experienced teachers had identical counterparts in relation to observing

peers. The vast majority of the questions were derived from the literature on observation such as using structured observation, observation tasks and reflection. The questionnaire, which was tested for validity and reliability (see section 4.6 and 4.7), was not time consuming since most questions were comparative, which should have made the respondents more familiar with them.

I administered the questionnaire during a taught university session so that it could be completed and collected before student teachers left the session. This should have resulted in a very high response rate. Unfortunately, the plan was disrupted by a heavy snowfall which resulted in the taught session being terminated before the end of the morning. This affected the response rate so I arranged for the questionnaire to be made available during a subsequent taught session for those who had not had an opportunity to complete it to do so. In addition, the questionnaire was not too long (four pages) and there were very few open-ended questions in order not to deter respondents from completing it. The number of completed questionnaire copies was 136 student teachers, which represented almost exactly two thirds of all the student teachers in the course at that time.

4.4.6 Piloting the questionnaire and interviews

To enhance the quality and validity of the interviews and questionnaire (see section 4.6.1), both were piloted. Piloting the instruments helped eliminate superfluous, duplicate and irrelevant questions and improved clarity of questions particularly in interviews. It also helped in ordering the questions logically since an illogical order may distract the respondent and disrupt his or her line of thought. Piloting aided in gauging how much time the questionnaire and interviews typically took and in adapting their lengths accordingly. An advantage of piloting interviews was honing the my interviewing skill, which could be exemplified by my attending carefully to the

interviewees, being in control of the interviews, knowing what prompts to use and when to use them, keeping interviewees on track, knowing when to ask improvised questions on the spot, showing interest in respondents' ideas and knowing how to establish rapport with them. The interviews were piloted with 4 tutors in September, November 2011 and November 2012.

Some of the advantages of piloting the questionnaire were obtaining feedback from respondents about its length, clarity, coverage of key areas about observation advantages and disadvantages and layout. The questionnaire was piloted in January 2012 with 11 ITT student teachers who discussed it with me afterwards. The questionnaire received positive feedback from student teachers who completed it due to the variety of pertinent matters it raised, not being too lengthy and not containing many open questions.

Since the questionnaire was piloted prior to the introduction of Collaborative Paired Placement (CPP) in the ITT course and since the researcher wanted to take advantage of this opportunity to examine this innovation, there was a change in the questionnaire questions. Mainly, the change was repeating the questions for observing experienced teachers in a new peer observation section in a comparative way, whilst the core questions for observing experienced teachers remained largely the same. Whereas the questionnaire was piloted once, the interviews were piloted twice. This was beneficial considering the more demanding skill of interviewing over conducting a questionnaire which normally takes place once.

4.4.7 Document analysis

A document is 'a record of an event or process . . . produced by individuals or groups' (Cohen et al., 2011: 249), which helps to illuminate a researched topic (Prior, 2003 in Cohen et al. 2007: 201). Document analysis was implemented in this research

through the following procedures. An electronic Word file of the official course handbook of the studied ITT course was analysed via content analysis to ‘reduce large quantities of data’ (Flick, 2009 in Cohen et al. 2011: 563) and to portray ‘the *relative frequency* and importance of certain topics’ (Anderson and Arsenault 1998 in Cohen et al. 2011: 263). The keywords ‘observation’ and ‘feedback’ and ‘learning to teach’ were searched for electronically, identified, highlighted and summarised via attaching comments to them. The table of contents of the handbook was also carefully read and the sections relevant to the literature review and the findings of this research were treated in the same way as the keywords above. After that, the highlighted sections were grouped thematically to form sub-themes such as consolidating one’s subject knowledge, observation as a research-based activity and engaging in reflection. These sub-themes were compared with each other and relationships among them were investigated, which resulted in combining groups of related sub-themes into three major themes or patterns: conceptions of observation as a learning to teach opportunity, observation requirements and recommendations for observation and observation objectives. Since documents need to be explored ‘in their own contexts’ as ‘they are social products, located in specific contexts’ and since they need to be ‘interrogated and interpreted rather than simply accepted’ (Cohen et al., 2007: 203), there was a degree of interpretation on the part of the researcher.

4.5 Mixed-methods approaches

There is no one perfect way of designing one’s methods as different methodologies might work with different researchers depending on many factors such as the context of the study, the nature of the research questions, the participants. The methodological design of this study, mixed-methods, can be described as a ‘design where there is a substantial element of qualitative data collection as well as a substantial

element of quantitative data collection in the same research project' (Robson, 2011: 161). Another definition is the 'planned use of two or more different kinds of data gathering and analysis techniques, and more rarely different kinds of inquiry designs within the same study or project' (Green *et al*, 2005: 274). This framework enabled the present study to combine a quantitative questionnaire (see appendix 5) with qualitative semi-structured interviews (see appendices 2, 3 and 4) and document analysis (see section 4.4.7). The approach to combining these methods was 'parallel' (Cohen *et al*. 2011: 25) or 'concurrent triangulation' as the research methods were used 'separately and independently' at first before comparing the results and gauging their 'convergence' (Robson, 2011: 165). This design was also 'nested' since the secondary research method, the questionnaire, was 'embedded' in the primary ones, the interviews (Robson, 2011: 165) since the latter provided richer details and contributed to answering the research questions more.

Many reasons support using multiple methods such as the existence of contrasting constructs in educational research; Rorty, who is a pragmatist, contends that 'there is a growing acceptance that there is no single method for success and that the criteria for good work change through time' (Rorty in Baert, 2005: 133). Therefore, adhering to only one method would be less likely to achieve success. Furthermore, due to the complexity and variety of social phenomena, there is a need for social researchers to be methodologically 'eclectic in their search for the truth' (Pring, 2000:33), which is conceptualised as 'what works' in the pragmatic paradigm mentioned above (Robson, 2011: 28) (see section 4.3). Another important reason for using 'multiple methods' is the existence of diverse research questions which require different methods for approaching them (Gray, 2009: 36). Since one of the research sub-questions asks about the change in students' conceptions during the course, this was more aptly explored via interviews rather than a questionnaire because interviews, unlike questionnaires, can

permit follow-up questions and more time to explore issues. Whereas the semi-closed questionnaire provided student teachers with items specifying ready-made observation strategies, the semi-structured interviews granted students the opportunity to both elaborate on pre-identified issues and to raise new ones. Another reason for using mixed methods is that the biases inherent in any single method could neutralize or cancel the biases of other methods (Creswell, 2003: 15); that is, whereas interviews can be subjective due to the influence of the interviewers such as their age, sex, status, interviewing style, questionnaires tend to be less subjective due to the lack of direct influence of the questionnaire designer. This lessens the number of intervening factors which may interfere in the way respondents complete a questionnaire. Therefore, by utilising a questionnaire alongside interviews, this should have lessened the inherently subjective element of interviews when research and its findings are examined as a whole.

The main goal for employing mixed methods is complementarity, which can be achieved if ‘quantitative and qualitative methods are combined to measure overlapping but also different elements of a phenomenon’ (Green *et al.* in Gray, 2009: 212). To do this, similar questions were included in both interviews and questionnaire such as the questions about frequency of observing other teachers and training to observe. Interview questions not asked in the questionnaire, such as asking students about imitating the teachers they have observed and whether their observation styles had changed, were added. Complementarity was enhanced by the different nature of the methods utilised. The specific examples given in the closed questions of the questionnaire were not, for the most part, given in the interviews whereas the open-ended interview questions provided interviewees with more freedom to provide their own examples and improvised questions were asked which were not planned in the original interview schedule, such as asking student teachers what exactly they look for when observing.

Additionally, participants' perceptions were contrasted with the official course book guidance where appropriate via document analysis. The other goal of mixing methods is triangulation (Green *et al.* in Gray, 2009: 212).

4.5.1 Triangulation

Triangulation can be defined as 'combining several qualitative methods or combining qualitative and quantitative methods' (Green *et al.* in Gray, 2009: 212). Another definition is 'the integration of different research methods in order to 'balance out any of the potential weaknesses in each data collection method' (Gray, 2009: 36). To apply triangulation, two criteria were proposed: a 'theoretical perspective' and 'methods and data' which will be congruent with that perspective (Fielding and Fielding in Silverman, 2005: 121-122). Triangulation incorporates protocols such as 'data source triangulation', which examines data at different times, places or interactions between individuals (Denzin in *ibid*: 112-113). This can be exemplified by utilising different 'sources of evidence' via triangulation (Yin, 2009: 18). For instance, not only were student teachers interviewed but also their tutors and mentors and some student teachers were interviewed twice to examine their perceptions at different times. Additionally, data from document analysis of the official course book were compared with the three stakeholder groups' perceptions to arrive at a more complete and complex picture of the researched phenomena. Some of the advantages of triangulation in this study were better 'accuracy' and 'alternative explanations' (Stake, 1995: 107). By combining quantitative and qualitative data and exploring different groups' perceptions with different statuses and experiences, the precision and validity (see section 4.6) of this research improved. However, despite the advantages of mixing methods and triangulation, an awareness of their potential problems should not be overlooked.

4.5.2 Some challenges in using mixed methods

Having argued that using mixed methods is beneficial for this study, some potential problems and how the study addressed them will be clarified. Using mixed methods can be both time-consuming and relatively expensive (Bryman in Flick, 2009: 452). This was exemplified by offering financial incentives for student teachers and travel expenses for the researcher. The time-consuming feature of this research was manifested through transcribing 40 interviews, which lasted on average for 35 minutes, as well as triangulating the findings between the questionnaire, the interviews and document analysis. Another potential challenge is that integrating the findings resulting from different methods can cause incongruous conclusions (Bryman in Flick, 2009: 452). Since a respondent's interaction with a questionnaire tends to be impersonal because they are interacting with a text rather than a person, interviews usually have much more room for exploration of responses and a tendency to make the interviewer influence the interviewee's responses sometimes in unexpected ways.

Other obstacles in using multiple methods are 'the limited use of particular methods' (Gorard and Taylor, 2004: 144-145) and what is perceived to be a quantitative-qualitative schism (Gorard and Taylor, 2004: 147). This 'divide' can be exemplified by the notion that 'the choice of a research method represents commitment to a certain kind of truth and the concomitant rejection of other kinds of truth' (Snow in Gorard and Taylor, 2004: 150). However, many scholars agree that the rift between qualitative and quantitative approaches to research represents a 'false dualism' and some propose viewing the two on a 'continuum' rather than as a 'dichotomy' (Gray and Densten, and Frazer in Gorard and Taylor, 2004: 6). Another reason for this divide is the lack of appreciation of the multifacetedness of research and the researched (Pring, 2000: 48). For instance, one can refute 'positivism' without relinquishing 'the realism of the physical' (Pring, 2000: 50). In fact, there is an inevitable overlap between

qualitative and quantitative research since ‘the patterns in qualitative analysis are, by definition, numeric, and the things that are traditionally numbered are qualities’ (Gorard and Taylor, 2004: 150). Since this ‘dualism’ between the quantitative and the qualitative is questionable, it should not be seen as an insuperable hurdle for using mixed methods and the pragmatist philosophical stance, which does not subscribe to only one way of viewing knowledge, seems to override this dichotomy. Having discussed the theoretical paradigm, the research instruments and the mixed-methods nature of this research, this study will turn now to discussing some important requirements in relation to research methods namely validity, reliability, sampling and analysis.

4.6 Validity

Although validity is fundamental to good research (Cohen et al, 2011: 179), it is defined differently by different researchers. This concept is far from easy to grasp due to the different conceptualisations associated with it. Previously it was construed to mean that ‘a particular instrument in fact measures what it purports to measure’ or that a certain description precisely signifies ‘those features that it is intended to describe, explain or theorise’ (Winter in Cohen et al, 2011: 179). This concept has acquired new meanings recently as in qualitative research it could be achieved through ‘honesty, depth, richness . . . the extent of triangulation and the disinterestedness or objectivity of the researcher’ (Winter in Cohen et al, 2011: 179). In quantitative research, however, validity can be enhanced via ‘careful sampling, appropriate instrumentation and appropriate statistical treatments of the data’ (ibid.). From a realist perspective, validity refers to ‘the accuracy of a result’ (Robson, 2011: 85) if the research instrument and the defined subject area are identical (Gray, 2009: 155). If a given interview or a

questionnaire asks a question that is irrelevant to its research questions, this shows a sign of lack of validity in that research.

Not only do different terms exist which denote different nuances of validity particularly in qualitative research such as '*trustworthiness, authenticity, and credibility*' (Creswell & Miller in Creswell, 2009: 191) but also this concept has many types: internal, external, criterion, construct, content, predictive and statistical validity (Gray, 2009: 155). This study attempts to achieve internal validity, which signifies 'the extent to which causal conclusions can be drawn' (Gray, 2009: 156) or the attempt to show that 'the explanation of a particular event, issue or set of data which a piece of research provides can actually be sustained by the data' (Cohen et al., 2011: 183). To do so, different research instruments were triangulated and content analysis (see section 4.10) was used, which involved the generation of codes based on the data itself and checking the validity of these codes.

External validity refers to 'the extent to which it is possible to generalize from the data to a larger population or setting (Gray, 2009: 156) or 'the degree to which the results can be generalized to the wider population, cases, settings, times or situations, i.e. the transferability of the findings' (Cohen et al. 2011: 186). However, given the small scale nature of this study (89 questionnaire copies and 40 interviews in one university during one academic year) and the intention of comparing and contrasting a standard approach to observation with a more innovative approach, external validity was not a relevant concern. Rather, internal and content validity were much more pressing matters.

To meet the condition of content validity, 'the instrument must show that it fairly and comprehensively covers the domain or items that it purports to cover' (Carmines and Zeller in Cohen et al., 2011: 188). Therefore, a review of the literature

on observing experienced teachers and peers and learning to teach was conducted and the resulting research questions were matched with the questions of the research instruments, particularly interviews. This was done through colour-coding both the research and interview questions then by matching each research question with its relevant interview question counterparts at the drafting stage and then deleting the irrelevant ones. This ensured that the research instruments adequately represented the research questions. Furthermore, both the questionnaire and interviews were piloted to ensure the ‘representativeness’ of the ‘sampling of items’ in the research instruments.

Another type of validity, which is evident in this research, is consequential, as ‘the ways in which research data are used (the consequences of the research) are in keeping with the capability or intentions of the research’ (Cohen et al. 2011: 188). To do so, this study does not claim to be a definite changer of certain practices or be completely generalizable everywhere. Rather, it has the simple aims of identifying effective practices in observing teachers primarily and evaluating the innovation of a form of peer observation in a specific ITT course as a secondary aim.

4.6.1 Threats to and strategies for validity

It is not easy to enhance the validity of a study due to a multitude of threats. Maxwell identifies three of these: description, interpretation and theory (Robson, 2011: 156). Description involves ‘inaccuracy or incompleteness of the data’ which can be offset by audio-taping interview data (Robson, 2011: 156). To counter this, all interviews were audio-taped and they were, as far as possible, accurately transcribed to avoid data ‘inaccuracy’ or ‘incompleteness’ by listening to interview segments multiple times if they were unclear to record exactly what was said. Another threat is the kind of interpretation that imposes a framework or meaning on what is happening rather than this occurring or emerging from what the researcher learns during their involvement

with the setting (ibid.). This does not mean that one cannot adopt ‘a style of research that starts with some kind of prior framework’ (ibid.). However, adhering to one’s own theory to the extent of not seeing or acknowledging other possibilities or forcing data to fit a pre-determined framework which offers a poor match are also potential problems which can be offset by searching for ‘data which are not consonant with your theory’ (Maxwell in ibid.: 157). However, this was not a big issue in this study due to its exploratory nature.

Another threat to validity, as well as reliability, is bias. One way to decrease bias is being aware of it and explaining it. Explaining the researcher’s bias can be done through relating their analysis of the results with their gender, culture, history and socioeconomic origin (Creswell, 2009: 191). However, although being aware of the bias a researcher may bring into the research is only a first step in lessening it, such awareness can prove useful. Some strategies are suggested to offset it which are triangulation (4.5.1), member checking during interviews, ‘audit trail’ (Robson, 2011: 157-159) and peer debriefing.

This study attempted to reduce bias in the interviews by not elaborating on the researcher’s views and ‘expectations,’ trying not to view the interviewee ‘in [the researcher’s] own image’, and trying not to search for responses which matched his preconceived ideas (Cohen et al. 2007: 150). The researcher attempted to give as much time to the interviewee as possible rather than himself and the questions were derived mostly from previous research rather than from the researcher’s own viewpoints. Moreover, the researcher endeavoured to minimise his own misunderstandings by making sure he understood what the interviewee was saying by asking extra questions or repeating questions. He also tried to avoid misperceptions on the part of the interviewees by clarifying to them what he meant when necessary (ibid.)

In short, although Cohen et al contend that eradicating ‘threats to validity’ is impossible, alleviating such risks is not (Cohen et al., 2011: 179). Thus, validity should be viewed as a ‘degree’ rather than an ‘absolute state’ (Gronlund 1981 in *ibid*). However, validity is not only a complex concept with various types and threats, but also it can be manifested differently in different research methods such as interviews and questionnaire, which is addressed in the next section.

Different validity-enhancing strategies have been identified by different authors. Some of these strategies, which were employed in this study were: triangulation (see section 4.5.1), ‘peer debriefing’ (Creswell, 2009: 191-192; Robson, 2011: 158-159) and ‘audit trail’ (Robson, 2011: 159). Peer debriefing, which involves finding a peer who examines the study and asks questions about it (Creswell, 2009: 191), was undertaken by asking the help of a fellow PhD researcher whose field was similar, applied linguistics. This researcher was presented with an overview of the research, its methodology and research questions and provided some valuable feedback. He agreed with the content and format of my research questions and with my way of presenting the data theme by theme due to the exploratory nature of my thesis, but he drew my attention to adding the word reported/perceived to my secondary questions and he convinced me that a chapter dedicated to the questionnaire was redundant.

Finally, an audit trail refers to ‘keeping a full record of your activities while carrying out the study’ (*ibid.*). This may involve documenting the researcher’s actions such as ‘interview transcripts’ (see section 4.4.3), ‘field notes’, ‘research journals’ and details of ‘data analysis (Robson, 2011: 159). This was done through keeping a detailed, factual record of the procedures of developing and administering the questionnaire and conducting the interviews, as well as transcribing the interviews and analysing data from both methods (see sections 4.4.2 and 4.4.5).

One of the most important steps of increasing the validity of semi-structured interviews is ensuring that the interview questions match the research questions (Gray, 2009: 357). This was done by deriving the interview questions from the surveyed literature in general and research questions in particular. Some examples are the degree of structure in observation, participant versus nonparticipant observation and the apprenticeship approach to observation (See chapter three). In addition, this study applied the following strategies to increase interview validity:

- Using interview techniques that build rapport and trust, thus giving informants the scope to express themselves.
- Prompting informants to illustrate and expand on their initial responses.
- Ensuring that the interview process is sufficiently long for subjects to be explored in depth.
- Constructing interviewing schedules that contain questions drawn from the literature and from pilot work with respondents (Arksay and Knight in Gray, 2009: 376).

The researcher endeavoured not to interrupt the interviewees, which resulted in some very long interviews (about an hour) occasionally, although this was balanced by staying in control to avoid making the interviews considerably longer. Whenever something interesting or relevant emerged or whenever the researcher wanted to make sure that he understood what they were saying, additional questions were asked to elaborate or repeat what they said if it was not clear.

In order to increase the validity of the questionnaire, the questionnaire questions were derived from and built on the research questions (Gray, 2009: 263). To do this, the researcher not only referred back to the research questions before designing the questionnaire questions, but also double checked after the completion of the questionnaire to make sure that no questions were irrelevant. Second, to avoid 'poor' or 'confusing' 'sequencing' of the questions (ibid: 262), (see section 4.4.4) the questionnaire was piloted. Having discussed the idea of validity in this research, another related and important concept is that of reliability.

Since documentary analysis is ‘an unobtrusive measure’ with little chance to have ‘reactive measurement effects’ (Robson, 2009: 425) from the composer of the document ‘because they have not been created specifically for the purposes of social research’, these characteristics contributed to its validity (Bryman, 2012: 543) in this research. Having discussed the concept of validity and how it was applied in this research, the next section will address another important research criteria, reliability.

4.7 Reliability

Reliability, which is important to good research, can be defined as ‘the stability or consistency with which we measure something’ (Robson, 2011: 85) or ‘an indication of consistency between two measures of the same thing’ which could be either ‘two separate instruments’ or ‘two halves of an instrument such as a questionnaire’ (Black in Gray, 2009: 158). However, reliability in quantitative research is different from its qualitative counterpart (Cohen et al. 2011: 200) since in quantitative research, reliability basically signifies ‘dependability, consistency and replicability over time, over instruments and over groups of respondents’ and it focuses on ‘precision and accuracy’ (ibid: 199). Reliability in qualitative research entails that ‘the researcher’s approach is consistent across different researchers and different projects’ (Gibbs in Creswell, 2009: 190) and it incorporates ‘fidelity to real life, context- and situation-specificity, authenticity, comprehensiveness, detail, honesty, depth of response and meaningfulness to the respondents’ (ibid: 203-204). For qualitative research to be reliable, it must demonstrate that if it were to be carried out on a comparable population in a comparable setting, comparable findings should ensue (ibid.). In order to improve the reliability of a study, certain measures are particularly helpful.

4.7.1 Threats to and strategies for improving reliability

One reason for unreliability arises from participant error and bias (Robson, 2011: 86-87). Participant error can happen if their answers change or if they misunderstand a question and they may introduce bias if they give the researcher answers they think he/she wants to hear (ibid.). Researcher bias can happen if he/she biases their analysis in line with their ideological commitment (ibid.). This can be lessened if the researcher employs triangulation, and finds and acknowledges the existence of different interpretations and counter examples.

One technique for improving reliability particularly in qualitative research, which is part of the mixed design of this study, is ‘reflexivity’, which involves ‘showing the audience of research studies as much as is possible of the procedures that have led to a particular set of conclusions’ (Seale in Lewis and Ritchie, 2003: 271). This helps ensure that claims are supported by adequate evidence (ibid.). Another technique that helps enhance reliability, particularly in qualitative research, is an ‘audit trail’ (Robson, 2011: 159) (See section 4.6.1). Interestingly, conducting an audit trail requires a certain degree of reflexivity on the procedures adopted during the research to arrive at certain findings. The audit trail in this study took the form of the factual description of research procedures such as interview, questionnaire and analysis procedures and keeping a detailed record of transcripts, notes and findings over their several stages of analysis (see sections 4.4.2, 4.4.5 and 4.9).

Although reliability in qualitative research is different from that of quantitative research, it includes, generally, ‘replication’ or repetition of:

- the status position of the researcher;
- the choice of informant/respondents;
- the analytic constructs and premises that are used;
- the methods of data collection and analysis (LeCompte and Preissle in Cohen et al., 2011: 202).

The researcher endeavoured to adhere to the above conditions within the context of this study. That is, the research project was conducted by one researcher and the selection criteria of respondents, (see section 4.8) were consistent since purposive sampling was used for all interviews with university tutors and mentors whilst volunteer sampling was used for all student teacher interviews. Also, care was taken to ensure that the analytic constructs and data collection methods and analysis were, as far as possible, consistent (See sections 4.10 and 4.4). Additionally, other measures were identified to increase reliability such as examining transcripts to ensure that they did not contain ‘obvious mistakes’, preventing a change in the ‘meaning of codes’ by frequently matching data with codes and ‘writing memos about the codes and their definitions’ (Gibbs in Creswell, 2009: 190). To avoid transcription mistakes and to provide accurate transcripts, the researcher listened several times to unclear sentences and words. Due to the nature of the qualitative interviews in this study, reliability was less of an issue in them than in the questionnaire. Generally, however, a reliable interview ‘*consistently* measures what it set out to measure’ (Gray, 2011: 376), which implies that the interviewer should ask the questions ‘in the same way and in the same tone of voice (ibid.). Nevertheless, this does not mean that all interviews should be exactly the same since the interviewer needs at times to clarify certain issues and concepts and help interviewees in general to answer the questions; however, a skilful interviewer does this without changing the interviewee’s answer (ibid.).

Since bias decreases reliability (Gray, 2011: 376), several measures were used to counter it; first, a highly consistent interviewing approach was followed with interviewees and the wording of ‘factual questions’ was consistently preserved, and prompting was provided normally when an interviewee requested a clarification; standard probes were utilised in the form of short follow-up questions (See appendices 2, 3 and 4) or improvised and questions were not usually asked ‘out of sequence’

(Oppenheim in Gray, 2009: 376-377). While adhering to the sequence of the questions in the interview schedule, additional questions were asked when they seemed particularly relevant. However, since each participant responds differently, the researcher needs to be quick and reactive to adjust astutely to these unavoidable diversities and interviewees need to interpret the questions in the same way (Silverman in Cohen et al. 2007: 150-151). To improve reliability of documentary analysis, it was combined with interviews and the questionnaire (Robson, 2009: 425).

4.8 Sampling

Sampling is an essential factor in determining the quality of a research study (Cohen et al. 2011: 143). It refers to ‘defining the population’ which the study will concentrate on since in real life, issues such as ‘expense, time and accessibility’ normally do not permit the researcher to study the entire population (ibid.). Choosing a sampling strategy depends on the ‘criterion of suitability’ regarding ‘the purposes of the research, the time scales and constraints on the research, the methods of data collection, and the methodology of the research’, which increases the validity of the study (ibid.:163). There are two main types of sampling: ‘probability’ or ‘random’ sampling and ‘non-probability’ or purposive sampling (ibid: 153). In probability sampling, the possibility of choosing each participant is ‘known’, but in non-probability sampling, this possibility is unknown (Robson, 2011: 271). Put differently, in probability sampling, anyone in the whole population has an equal chance of being chosen to be included in the sample, whereas in non-probability sampling some people will be certainly included and others certainly excluded (Cohen et al. 2011: 153).

This study employed purposive sampling with tutors and volunteer sampling with student teachers. The aim of administering questionnaires during a taught session and collecting them in at the end of the session was to obtain as close as possible to

sampling the entire population. It was hoped that, although student teachers were made aware that participation was voluntary, the fact that they were familiar with completing questionnaires in session time and were not asked to use their own time nor to take responsibility for returning the questionnaire would make a very high response rate possible. However, two thirds of the whole population, 89 out of 136 completed the questionnaire, as some of them were absent due to extreme weather conditions at that time.

One of the advantages of sampling strategies is that although purposive or volunteer sampling are not deemed as ‘representative of the whole population (Gray, 2009: 153) or generalizable to other populations, they can be beneficial indications of trends, if they are treated with caution (ibid.). This is in line with the goals of this study, which does not claim findings from this research will apply to all ITT courses in the UK; rather, it explores patterns and common practices and perceptions in a specific course to identify effective observation practices. It also seeks to examine how effective the innovation of observing peers as part of collaborative paired placements was, compared to observing experienced teachers.

The researcher’s supervisor facilitated the identification of university tutors and school mentors for the interviews. The study focused on university tutors who were also course and subject leaders because of the prominent role they play in the decision-making process in the course and as they generally have greater experience and expertise than other tutors. Their subject specialisms were maths, science, English with drama, drama with English, history and Modern Foreign languages (MFL). An advantage of interviewing course leaders is that they serve as representatives for their own subjects, which is essential for making claims for the course as a whole. Purposive sampling allowed me to focus on experienced mentors who were recognised to be very

competent and thoughtful practitioners who were likely to be able to make a valuable contribution to the research. Although some of them had retired from school-mentoring, they were employed on a part-time basis as university tutors and were able to view the research topic from both perspectives.

The study adopted a different strategy to secure interviews with student teachers who were placed in different schools. They were asked to provide their contact details on their completed questionnaires and a financial incentive was offered, which resulted in 38 providing contact details out of 89. All of those volunteers were emailed which resulted in 18 student teachers agreeing to be interviewed. To answer the secondary research questions of examining change in student teachers' perceptions, and to enhance the validity and reliability of the findings, a second round of follow-up interviews was conducted with 9 of the previously interviewed student teachers and the same strategy of providing financial incentives was used. Having discussed procedures for validity, reliability and sampling in this thesis, the last parts of this chapter will address how the data were analysed and the ethical issues encountered.

4.9 Data analysis

Analysis can be defined as a 'breaking up' of something complex into smaller parts and explaining the whole in terms of the properties of, and relations between, these parts (Robson, 2011: 412). In this section, qualitative data analysis will be presented first, due to its importance in this study, before discussing the quantitative part. Qualitative data analysis, which is part of the mixed-methods approach, can be conceptualised as 'making sense of data in terms of the participants' definitions of the situation, noting patterns, themes, categories and regularities' (Cohen et al. 2011: 537). It can involve 'identifying themes from interview transcripts and writing about them' and 'quoting extensively in verbatim format' (Kumar, 2011: 277), which was the case in

the qualitative part of this study. Although there are many approaches to analysing qualitative data, the choice of analysis method was informed by *fitness for purpose* (Cohen et al. 2007: 461). Despite the advantages of computer-assisted qualitative data analysis software packages such as handling substantial amounts of textual data quickly, lack of ‘risk of human error’ (Cohen et al. 2011: 544), this study did not employ them because such software packages (bullets added):

- might ‘distance’ researchers from their data
- normally pertain to ‘grounded theory’ rather than others types of qualitative inquiry
- concentrate on ‘code and retrieve’ strategies at the expense of ‘more complex interrogation of texts’
- emphasise ‘coding’ and its manifestations with the risk of overlooking important contextual factors from the analysis
- may result in poor analysis if the coding is poor (Cohen et al. 2011: 545)

The interviews were analysed using content analysis for the following reasons: first, it ‘focuses on language and linguistic features, meaning in context’ and is systematic and verifiable (e.g. in its use of codes and categories) (Cohen et al. 2011: 563). Second, the rules for analysis are explicit, transparent and public’ (Mayring 2004: 563 in *ibid.*). Third, ‘the data are in a permanent form (texts),’ and ‘verification through reanalysis and replication is possible’ (Cohen et al. 2011: 563).

4.10 Content analysis

Since a problem in qualitative research is the large amount of data one needs to deal with, ‘data reduction’ is an essential feature of qualitative analysis, which involves categorising ‘many words of texts’ into ‘much fewer categories’ (Cohen et al. 2011:559). Content analysis can be defined as ‘making inferences about data (usually

text) by systematically and objectively identifying special characteristics (classes or categories) within them' (Gray, 2009: 500). Another definition is 'a research technique for making replicable and valid inferences from texts . . . to the contexts of their use' (Krippendorp in Cohen et al. 2011: 563). This process includes 'coding and categorizing' which means assigning categories to 'units of analysis' such as 'words, phrases and sentences', comparing categories and establishing connections among them and 'concluding' via 'drawing theoretical conclusions from the text (Cohen et al. 2011: 564).

My approach to content analysis focused on finding themes rather than counting words (Beardsworth 1980 in Bryman, 2012: 290) although there was an element of quantification. It included a few a priori theoretical categories, such as the concepts of structure, focus and observer training, which were 'modified' as a result of 'empirical data' (Cohen et al., 2007: 475). I utilised both quantitative and qualitative analysis of data since I 'interrogated' and summarised texts by using both 'pre-existing categories and emergent themes' (Cohen et al., 2007: 476) to answer my research questions.

The content analysis of the interviews followed several procedures. The first was determining the units of analysis which were derived from the research questions (Robson, 2011: 352; Mayring in Flick, 2002: 190-191). These units of analysis were then combined for ease of analysis to form five colour-coded categories:

1. Perceptions of current practice of observing experienced teachers (green)
2. Perceptions of current practice of observing peers (blue)
3. Perceptions of effective practices in observing experienced teachers (purple)
4. Perceptions of effective practices in observing peers and (red) and
5. Emerging ideas/patterns (yellow).

Because of the large amount of data, 'tabulation', which is 'the most common technique used to render data comprehensible' (Krippendorff, 2004: 192) was applied in the form

of a table, (see appendix 6), designed to be complete with summaries and short citations from all interview transcripts. This table has the above five colour-coded units of analysis to make comparisons easier between perceptions of different issues. The ‘emergent ideas/patterns’ unit of analysis was utilised in order not to miss any important ideas which may not fit directly into the other categories. Interview transcripts were read several times to locate such units of analysis and to add them the analysis table in the form of summaries of ideas or direct quotations from the interviewees, which resulted in 40 tables. All the suggested perceived effective observation practices from each group’s (school mentors, university tutors and student teachers) tables were combined separately into another table dedicated wholly to perceived effective observation practices to facilitate comparisons and theme identification. These practices, in the form of summaries and direct quotations, were re-labeled as themes and sub-themes and were assigned codes and read several times to ensure they were ‘exhaustive’ and ‘mutually exclusive’ (Robson, 201: 354). Accordingly, many codes were re-categorised and combined under more general ones until six main themes and 22 sub-themes were identified (see Chapter 5).

4.10.1 Questionnaire analysis

To simplify the process of analysis, SPSS, which is a well-established programme for conducting statistical analysis in social sciences, was used to store the data electronically and to perform the analysis. Only frequencies of variables were utilised and compared due to the large amount of data and number of variables. In addition, SPSS was used to generate tables for each questionnaire question which contained the number of frequencies, their percentages and any missing values. Then information in tables was studied carefully in order to detect patterns, themes and percentages in the analysis. The patterns and themes of observing experienced teachers were compared to

their peer observation counterparts and a summary of results was provided for each main section in the questionnaire. The three open questions in the questionnaire were analysed in a similar way to content analysis procedures; although very few student teachers answered them, they were grouped also in tables and a commentary about each one was provided to discover patterns and compare their results. In chapter 5, the questionnaire analysis will be combined with both interview analysis and the literature to discuss any similarities and discrepancies between them.

4.11 Ethical issues

In order for research to be ethical, it needs to adhere to a few general ethical principles which are: '*Voluntary participation*', '*informed consent*', '*no harm to participants*', '*anonymity and confidentiality*' (de Vaus, 2001: 83-87;) and 'honesty and integrity' (Denscombe, 2003: 134) or, put differently, avoiding 'deception or misrepresentation' (Denscombe, 2003: 136-138). First, the voluntary nature of respondents' participation in research signifies that they not only should not be forced to participate in the research (Denscombe, 2003: 138) but also they should know and feel free to leave the research at any time (Oliver, 2003; de Vaus, 2001: 83). In accordance with this, both the questionnaire respondents and the interviewees were offered the choice to participate and no pressure from staff or peers was imposed on them. However, the interviewees were offered financial incentives for 'giving their time and effort to the research . . . just as in other kinds of work' (Oliver in Cohen et al., 2011: 80).

Second, the principle of informed consent which means that 'participants should be fully informed about a research project before they assent to taking part' (Oliver, 2003: 28), does not necessarily mean giving them all the information about the research

since what they need is adequate information on the basis of which they can decide whether to participate in the research or not (Denscombe, 2003: 138). To illustrate, participants need to know the aims of the research, who the researcher is and how the data will be used (de Vaus, 2001: 85). Accordingly, the participants were informed about the identity of the researcher and the general research aims. To audio-record the semi-structured interviews, participants' permission was asked and given and they were informed why the interview needed to be audio-taped (Oliver, 2003: 45). Since such agreement needs to be 'written' in order to document it 'formally' (Denscombe, 2003: 138), prior to conducting the interviews, the respondents received a voluntary informed consent form to read and sign if they agreed with its conditions. The informed consent principle needs to be applied not only to participants but also to organisations (Oliver, 2003: 28-29). Consequently, permission was obtained from the Director of the institution and the Director of Teacher Education where the study was conducted through a formal letter and an ethical approval form was filled in and approved prior to any data collection in the research site.

Third, since researchers need to protect their participants from all kinds of harm whether it is 'physical', 'psychological' or 'personal' (Densecombe, 2003: 136), the venues for conducting the interviews were all known public places such as cafes and libraries and they were chosen collectively by the participants and the researcher. Also, the interview schedule did not contain personal or sensitive questions which would distress the respondents who voluntarily answered all the questions. Since participants' 'interests' should also be preserved via making their data 'confidential' and storing them in a safe place (ibid.), participants' data were not 'accessed by a third party' (Oliver, 2003: 50) and they were 'stored electronically' and password-protected (de Vaus, 2001: 87).

Since confidentiality may encourage respondents to provide ‘frank’ and ‘honest’ responses (de Vaus, 2001: 87), one way for enhancing this involves anonymising identities (Oliver, 2003: 78-79), which involved replacing participants’ names with numbers. Another example of anonymising is that the ‘full details’ of a respondent’s position should not be revealed unless they are particularly relevant to the study (ibid.: 80). Therefore, since comparing subjects is not an aim of this study, this detail was omitted.

Last, since researchers are expected to be truthful and straightforward to participants in relation to their research, this was exemplified by informed consent above (Denscombe, 2003: 137). Also, providing the respondents with too much data could ‘confuse, distract and overwhelm rather than inform’ them, which may be remedied by informing them of basic information (de Vaus, 2001: 85). Therefore, the researcher can postpone informing the respondents of the full details of a study, provided that he/she explains clearly why it was necessary not to reveal this information, the ‘true nature’ of the study and the reason they were not informed about it before (ibid.). Therefore, respondents were informed of the general purposes of the study but they were not informed initially of one of the sub-questions which asks about change in their perceptions. This question was relevant only to those who did a second interview and if they had been aware of this question in advance, this may have affected the way they answered it. However, respondents were told about this, were offered an explanation of why they were not informed about it and were asked for permission again.

4.12 Conclusion

This exploratory study faced many challenges such as using three completely different methods rather than merely one and combining data from three different

stakeholder groups. Another challenge consists in the relatively small scale of the data, which affects its external validity. However, these challenges can also be viewed as strengths since adopting a more complex view of reality and meaning is more fruitful than adopting a simple one-way approach to methodology, which deprives it of the benefit of the other approaches. Combining views of different stakeholder groups is also more likely to arrive at a more panoramic, comprehensive view of the research matter under investigation rather than a one-sided story, which may not coincide with the views of other potentially important groups to this study. After all, the aim of this study is not to claim that its findings are applicable everywhere; rather, it aims to offer suggestions for good practices in observation for the course it examined and its findings could be tested in a comparable context elsewhere.

5. Analysis and discussion

5.1 Findings related to the main research question

This chapter is divided into two main sections: one dealing with the main research question, which is:

1. What are student teachers', university tutors' and school mentors' perceptions of effective practices in observing experienced teachers and peers?

The second section addresses the secondary research questions, which are:

- a. Which type of observation do participants prefer (observing experienced teachers or peers)?
- b. What is the degree of agreement among participants regarding these perceptions? And
- c. Do student teachers' perceptions change throughout the course and do they have plans for change?

The reason for dividing this chapter into two main sections is to make the analysis and discussion more oriented to research questions and to facilitate making sense of the data by organising them in a more manageable way.

5.2 Introduction

Both analysis and discussion of the research data are combined because of the nature of this study and to lessen verbosity. Due to the exploratory nature of this study, many themes and sub-themes were identified. Presenting all these themes and sub-themes in a findings chapter before summarising them and referring to them in a discussion chapter would not only make the results dry and less interesting to read but also would substantially increase the word count. Another reason was to make the data,

which were collected from several groups using several methods over the duration of the course, easier to compare and analyse by placing the findings and discussion side by side. Consequently, not only themes such as techniques during observation were divided into smaller sub-themes such as structure and focus but also the numerous sub-themes were analysed systematically. For a great majority of sub-themes, there is a short introduction before presenting the quantitative findings of the questionnaire. This was blended with student teachers' two sets of interviews, their school mentors' and university tutors' and the literature as well as the course handbook's guidance where appropriate. Analysis of the data in relation to the main research question identified the following main themes: techniques employed during, pre and post-observation, the institutional aspect and personal qualities.

5.3 Techniques employed during observation

Since the main research question is identifying perceived effective strategies and techniques student teachers can utilise when observing experienced teachers and peers as part of ITT, the observation techniques themes and sub-themes represents the most significant part in both the questionnaire and the interviews. Whereas many observation techniques were asked about explicitly, others were suggested by participants and hence were less frequently mentioned. Three themes were identified, among others: pre, during and post observation strategies. The most frequent among them is observation techniques which take place during observation itself, which were classified into several sub-themes, many of which corresponded to the literature, which are: structure, observing other subjects, imitation, participation, focus, writing notes, using technology, observing a variety of teaching styles, observing good teachers and observing in groups with a discussion.

5.3.1 Structure

One of the sub-themes in the data is the degree of structure for observation. Structured observation for the purposes of this study signifies using a quantitative observation schedule or a checklist (Fish, 1995: 113) and alternatively it is termed 'system-based observation' (Wallace, 1991; 75). Although a structured type of observation with a quantitative observation form is necessarily focused, despite the existence of several focuses, structured observation is distinguished in this research from the focused since even observations in which the only structure is a blank piece of paper and one's own personal notes can be focused if the observer manages to focus primarily on one or two focuses throughout the observation.

Student teachers' responses to the questionnaire showed that the vast majority of them (four fifths or 48 out of 59 student teachers) wanted to use observation checklists (See table 2). Nevertheless, about a third of the whole questionnaire respondents indicated that this question was inapplicable.

Student teachers' first round interviews:

Structured observation, which was raised in the interview schedule, was discussed in detail by all student teachers in the first round of interviews. Student teacher 8 indicated that she deemed a structured approach to observation which involved a 'tick-box' form as a formal way of doing observations. Such a formal, OFSTED-like way of doing observations contrasts sharply with the informal approach of writing notes on a blank piece of paper as they spring to the mind of the observer or to not recording notes at all. Whereas 9 student teachers preferred structured observation, a small number (4) preferred an unstructured approach. Student teacher 1 explained why she preferred structured observation:

Structured is definitely easier because you know what to look for and you feel like you have a reason for being there. A bit of a problem I found in unstructured is . . . I used to feel a bit guilty for just sitting, I didn't know what I was looking for and pupils had their hands up and I was just sitting at the back so maybe structured definitely. . .

The advantage of having a structure for observing according to this student teacher was to have a clearer sense of purpose when she observed. Having no structure to observe was equivalent to being a passive observer, which she did not like. Another advantage of structured observation was making the act of noticing more manageable by breaking down what is observed into specific focuses according to student teacher 2:

. . . I would like structured in the sense that I would have a focus for the lesson because if I haven't been given a focus of things to observe for, then it's really broad and it's really quite hard to put all the broadness of every aspect of the lesson into one of these forms . . .

In other words, she associated success in using the forms with having a specific focus rather than attempting to cover all items which might not be all relevant in every lesson. However, she did point out one of the challenges of using a structured observation form, the broadness of the checklist items. Another challenge according to student teacher 2 again was the relevance or its lack of the items included in the structured observation schedule:

. . . I think some of the questions in the observation form aren't relevant in every lesson and then you sort of looking for something in the lesson that's not there because it's in the form.

Indeed, Fish contends that although 'schedules', 'checklists' and the 'ratings approach' claim to be unbiased, they 'may blind the observer to other issues' (1995: 113).

Likewise, the observation schedule might be inadequate in that it might include too many categories or such categories may not be well explained (Payne, 1943: 233). Such shortcomings were some of the reasons for the preference of the minority of student teachers for unstructured observation; for example, student teacher 4 explained why she preferred unstructured observation:

. . . I sometimes think I'm an unstructured person to be honest . . . there are other things I can pick up that might not be on a sheet, they're almost quite intangible but not. . .

However, Wragg warns against the selectivity of our thinking which is not easy to dissipate in qualitative methods, which can be assuaged through ‘rigorous scrutiny of barriers to accurate perception’ (Wragg, 1999: 54). Despite an awareness of the potential of observation checklists to restrict the observation to a list of boxes, most student teachers preferred having such a structure as a means to focus their observations.

Not only did most student teachers prefer structured observation but also they suggested some strategies to increase its effectiveness. Student teacher 12 suggested using an observation checklist and observing as a group before discussing the findings in groups as well, which is discussed in detail below as a post-observation strategy:

There was some kind of a sheet to fill in with lots of different questions like how do they start the lesson. All the standard observation questions; we had to fill it in as we went along. And then when we went back to university, we discussed it with them as agreed, so I think that was quite effective.

Another strategy is using the observation forms which are used to assess student teachers and seeing qualified teachers fill them as student teacher1 contended:

I would like to observe teachers using the observation sheets that we’re observed on because there’s a huge pressure as a trainee to think that you have to tick every box every lesson and I don’t think even qualified teachers do that . . . I think it’s about doing it over time, over a few lessons . . .

Thus, attempting to focus on all aspects in a structured observation schedule can prove too challenging in one lesson which can be alleviated by choosing certain issues in the observation schedule to focus on in each lesson. Although observation forms whose purpose is assessing student teachers are designed for a different purpose, seeing an experienced teacher or mentor managing the time and effectively using such a form and discussing how this was done could be an effective practice for student teachers. A possible challenge in using such forms is that the observed teachers might feel threatened if an assessment observation schedule was used by a student teacher who normally lacks teaching experience.

Another strategy suggested for structured observation was using a variety of observation forms to suit different classes. Student teacher 2 maintained:

... I need ... different forms; they had like a class with heavy SEN ... then an SEN observation form which have specific questions relevant to that lesson and I think that would be a lot more structured and a lot more beneficial because I think one form for every lesson doesn't work.

Not only can some items in the observation schedule be irrelevant, but also some observation schedules as a whole may not be tailored to a specific class with specific characteristics. This is important as the strategies used in observation need to be compatible with the 'focus' and 'purpose' of observation (Wallace, 1991: 82)

To counter the disadvantage of focusing only on the observation sheet, one suggestion was to have a balance of the two methods, namely both structured and unstructured. Using more than one observation method at a time is attainable provided that the observer is 'systematic' and strengths and weaknesses of tools, data types, 'recording' instruments and ways of utilising them in debriefing are considered (Fish, 1995: 114). Student teacher 1 maintained:

... but at the same time if you see something that you think is amazing or something that isn't, you'll just write this down, having some way to write your personal thoughts . . .

This student teacher seemed to favour a more eclectic approach to observation since she did not exclude noticing other interesting aspects in the lesson and writing about them even if they were not present in the original observation schedule. Similarly, according to student teacher 5:

Because when you're looking in a structured way, you can narrow your visuals and you can miss other aspects that work as well. If I was just looking for, for example, assessment for learning opportunities I could miss the way that they are engaged ... so kind of sitting back without a focus is nice because you can just appreciate what is going on in the classroom and not worry too much ... I think it's important to have a balance ...

Despite pointing out a disadvantage of using a structured observation schedule, this student teacher also preferred a combination of both structured and unstructured approach to observation to benefit from both.

Although the majority of student teachers preferred using a structured approach to observation which involved the use of pre-made observation checklists, very few of them actually used one since only student teacher 15, who specialised in Modern Foreign Languages (MFL), did that. In response to the question of whether he used an observation form, he responded:

I did a couple of times. The university didn't mention them very much . . . They're in the three, four booklets in the start of the year and there was one called planning and observing and inside that there was a form. You have to find it yourself.

This was very similar to what student teacher 17 said:

. . . We have been encouraged to make our own structured forms that we can use and there were some available online as well . . . on the university's website in Modern Foreign Languages subject studies section.

In other words, designing one's own observation form rather than utilising the ones available in the booklets of each subject was encouraged. Since student teachers 15 and 17 were in the same subject, MFL, other subjects may have had different booklets with either different or no observation forms.

In summary, although most student teachers preferred structured observation mainly to have a sense of purpose and to gain something tangible from the observation, some of them were critical of observation forms due to their restrictiveness in accommodating new insights in lessons. Even among those who preferred a structured approach, some thought that a mixture of both approaches should be their goal. Several potentially effective strategies for structured observation were proposed such as observing in groups and discussing what they saw afterwards, using different types of

observation checklists which are suitable for different classes and covering the items in an observation schedule over several lessons rather than in one lesson.

Student teachers' second round of interviews:

The inclination towards structured observation was also evident in the second round of interviews. Of the nine student teachers who were interviewed a second time, four still explicitly expressed their preference for structured observation. Student teacher 8 maintained:

... So, throughout my whole training experience, I've only ever done an informal observation of teachers or peers. We've never had the opportunity to sit down and tick like a checklist or complete a formal observation. Only it's been my written notes, but I do think it would be helpful actually because I've been assessed so much using the university checklist format ...

However, different reasons were mentioned for not using an observation checklist.

Student teacher 8 found it strange that such observation forms made teachers less inclined to be observed:

Perhaps maybe I would have a look at the forms like the formal checklist forms and it's weird because it kind of put the teacher off a bit, they might feel they're being assessed. It's strange. A lot of teachers get a bit funny about being observed, a bit nervous ...

Thus, not only did many student teachers not utilise formal observation checklists which are designed to improve their learning to teach rather than to assess, but also some experienced teachers' attitudes about being observed by student teachers using structured forms were not positive.

An interesting perspective is that of student teacher 13 who contended that unlike placement 1, it was at this stage student teachers' responsibility to structure their own observations:

No, it's much less structured than it was before February and now it's much more about finding our own as we kind of grow as professionals, I think the nature of observation changes and it becomes less about finding, the school wants to show us this and us looking for things in the school.

This is similar to what student teacher 17 said when he talked about the need to set one's own targets rather than following ready-made order ones:

. . . It's quite nice to have the freedom to write whatever you want to write, to set it out because I wanna make notes so quickly, so it's kinda scribbling all over the place as opposed to doing it in any kind of logical order, so no I do like my exercise book. I guess a checklist as well would be quite nice . . .

This shift in the perspective about the role of observation and the responsibility for providing the structure is evidence of the increasing self-reliance of some student teachers who, at this stage in this ITT course, were trying to be proactive in setting their own goals and furthering their own development rather than relying entirely on the schools.

Student teachers in this round offered some interesting suggestions for making observation more useful. Student teacher 8 suggested using the Ofsted observation form to familiarise herself with their standards:

The standards, yeah, I think so because at the end of the day that's what Ofsted is gonna come in and observe you and to get to know these standards it is helpful even though it is, you feel like, 'Oh, it's just ticking a box or whatever.' I think a tickbox with a section to write comments as well or notes.

Familiarising themselves with the Ofsted standards seems like an emerging concern at this point particularly since student teachers were interviewed toward the end of their ITT course in May 2013. However, a caveat should be made since the purpose of the Ofsted form is different from that of student teachers, formal assessment. This student teacher wanted a somewhat balanced approach since she suggested a section to write notes rather than a wholly tick-box checklist which was also evident in the first round of interviews.

Another interesting suggestion by student teacher 12 is designing one's own pro forma which is not boxes to tick but rather boxes to fill in to remind herself of points which Ofsted would look for:

I'd like to have myself my own pro forma or something to use but will look specifically at things like differentiation and assessment for learning rather than sticking to how the lesson is structured or something like that . . . kinda have a box for engagement and a box for differentiation and a box for assessment, so you can use it as an observation tool in itself rather than just a blank sheet of paper which I've got at the moment . . . and also that's what Ofsted will look for as well . . .

In other words, she preferred neither a blank piece of paper nor a checklist with boxes to tick only. Rather, she wanted some kind of structure to make the observation more focused through boxes to fill in with ideas rather than only ticks, which is a balanced approach rather than wholly structured or unstructured. She also made another interesting suggestion about organising and formalising the process of observation by checking it formally and making it part of student teachers' Professional Development Profile (PDP):

. . . for example if you've written up things you've seen during the lesson kind of a place for that in your PDP folder . . . So, it's more of a formal part of the course because at the minute observations . . . there's kind of no place for them . . . So, because there is no space for them there, they kind of like slipped down the priority file maybe . . . Yeah, not to create work for future PGCE students, but yeah if it was organised for you not necessarily assessed but kind of monitored . . .

Maintaining a PDP, which includes student teachers' lesson observations is one of the requirements of the course (11). It is a 'record of [a student teacher's] progress towards the Teachers' Standards and development as a teacher, auditing the strengths and experiences and then for helping to set targets and track [their] progress made during the course' (43).

Formalising the process of observation and checking it formally does not necessarily contradict with designing one's own structure, which was suggested by two student teachers in this round. This is particularly the case if student teachers were encouraged and supported to design their own structured observation schedules which are based on their own goals and preferred focuses such as Qualified Teacher Status (QTS) or Ofsted standards. Although the concept of formal observation was associated with checklists used for assessment, formalising observation in this sense does not

necessarily require using such forms. Instead, it is formal in the sense of being monitored and academically recorded but not assessed.

In summary, there was a decrease in the general preference towards structured observation at this stage and there was a growing tendency towards a more self-dependent approach. More student teachers in the second round endorsed a balanced structured approach of observation in which they can write their own comments rather than merely tick boxes and they provided some useful but fewer and different ideas than in the first term to improve their observations. The fact that fewer different ideas were proposed could be ascribed to the difference in their increasing experience in the course and the smaller number of interviewees in this round. Their ideas included establishing one's own structure, goals and pro formas and prioritising the process of observation by formalising.

School mentors' and university tutors' interviews

Structure in observation was also discussed by all mentors and tutors. Five school mentors explicitly preferred student teachers to have a structure for observation such as using an observation schedule. This is the case particularly in the first placement because they argued that student teachers needed to be sufficiently trained to observe before starting to observe in an unstructured way. In the second placement, according to mentors 6, student teachers could observe in an unstructured way. Mentor 6 contended that:

The structured form, the structured set of focuses, is particularly effective in placement one when the trainee is just beginning to be experienced, how teachers work and it gives them a framework. In placement two, we have another form that's very popular and it's called form C and this is an open page and here the trainee is expected to lead the reflection . . .

This is reminiscent of the debate about whether student teachers are ready to reflect at the beginning of their training or only after acquiring some teaching experience, which

was classified as a personal quality. Observing in a structured way at the beginning of student teachers' training is consonant with research evidence, which documents student teachers' inability to know what to look for at the beginning of their training (Maynard and Furlong, 1993: 72). Five mentors indicated that student teachers were sometimes expected to use an observation form although two mentors added that they were informal pro formas.

Surprisingly, unlike the vast majority of school mentors, not many University tutors approved of adopting a structured way solely of observing as opposed to the unstructured one. Whereas two tutors explicitly endorsed having a structure, one tutor preferred the opposite approach if structuring one's observation meant addressing all aspects in the lesson. Those who deemed using an observation schedule as conducive for effective observation explained that it ensured that student teachers covered what they needed to cover and helped them avoid shallow observations. Tutor 3 maintained that a successful student teacher was the one who tended to use observation schedules:

If they see observation as useful, I would say they usually use our schedules or they use the way we have trained them to do it. But if they don't see observation as useful, then they just sit at the back of the classroom and watch, but I'd also think that these people don't get much out of it either . . . but the ones who seem to get anything out of it and keep doing it throughout the placement are the ones that tend to use the schedules. Sometimes, one of them adapts the schedule and finds their own on the internet, but they tend to be more successful or maintained it if they have a schedule to work to.

However, the other four tutors were more eclectic and maintained that both approaches are feasible depending on student teachers' needs and stages of their learning to teach.

Tutor 1 argued:

The point is it has to speak to the need of trainee at that current point; there's no one way to any of this. It's about negotiating, it's about being professional, negotiating your professional outcomes. Observations are more useful if they focused on a particular thing, but that doesn't mean that, in a certain sense once they started the course, all observations are focused to a certain extent because they are given guidance on that.

In fact, there was a lack of agreement regarding whether structured observation forms were used or not. Only two tutors talked about the actual use of observation forms and

whereas tutor 1 denied that student teachers used observation forms, tutor 7 contended that student teachers used the university designed pro formas.

To sum up, despite the wide variety of views, there were three general tendencies among many of the participants; namely, a slight preference for structured observation, a realisation of its restrictiveness and a tendency towards combining it with an unstructured approach in an eclectic manner to increase its effectiveness. Another observation is the lack of a structured approach to observation. Student teacher 8's experience of not using an observation schedule was common among student teacher interviewees, which is supported by the percentage of those who viewed this issue as inapplicable in the questionnaire (33 per cent). Even questionnaire respondents who thought that structured observation would be useful may not necessarily have utilised it and some responses may have stemmed from being observed according to such schedules. Other evidence consists in the three observation forms available in the student teachers' handbook for their teacher training course, which aimed to assess student teachers on qualified teacher status standards. Student teachers also volunteered many ideas such as formalising and monitoring the process of observation to become part of their profiles, observing in groups using an observation form and discussing their findings afterwards, watching experienced teachers fill in observation forms and using different observation forms depending on the focus of the lesson.

5.3.2 Focus

A recurrent sub-theme closely related to structure was having a focus during observations, was evident in the questionnaire and the interviews. In the questionnaire, the most popular proposition for improving the observation of experienced teachers was observing experienced teachers who are skilled in an aspect of teaching a student teacher needed to improve. Observing experienced teachers to improve a certain aspect

of teaching necessarily implies having a focus, namely one's weakness in teaching. Not only all student teachers who answered this question agreed, but also three quarters of them (75.3 per cent) agreed strongly (see Table 3). A category like 'strongly agree' was not a frequent choice generally in this questionnaire, which shows not only how important this aspect is in student teachers' teacher training but also their awareness of it. This sub-theme was the most endorsed practice for peer observation. Although not all student teachers approved this suggestion more than nine tenths (93.3 per cent) agreed with this idea (see Table 4). The reason why fewer student teachers strongly agreed with it in the context of observing peers was consistent with their preferences to observe experienced teachers. That is, student teachers found it more worthwhile to have a focus on a given weakness of theirs when observing experienced teacher because who normally have more teaching experience and more refined teaching techniques and confidence.

Student teachers' first round of interviews

All student teachers talked about having a focus except one, which shows its importance to them and their awareness of it. Some of its identified advantages were the impossibility of observing everything in the class (student teacher 3) and being less susceptible to losing concentration (student teacher 15). Eight student teachers out of nineteen recommended having a focus more explicitly whereas only one student teacher preferred unfocused observation because she liked the 'bigger picture' (student teacher 12). Additionally, seven student teachers were implicitly in favour of focused observation when they talked about how focused their observations had become particularly after the beginning of the course due to their increasing teaching experience and knowing their weaknesses. Student teacher 13 said:

In the beginning when I was doing my own observations . . . You just kind of you don't really know what to look for and I think having your own classes where there is a lack of something or a problem generates that need to see it done better and then work

backwards so you can work good practice . . . so in the teacher observations of us, the classroom teacher or the school observation of us, they would make notes on things, so they might say, 'OK, your questioning wasn't so good in the lesson, so that is something you need to think about.' So, I need to work on questioning, so I find a teacher who is good at questioning

This indicates that having some teaching experience, facilitates, if not enables, student teachers to have a focus in their own observations based on their own needs and weaknesses. However, identifying one's own learning objectives requires having started to teach. This explains why their observations at the very beginning of ITT, which normally intend to acclimatise new student teachers to the school culture, many student teachers do not know what to look for. Ironically, as student teachers progressed and their observations became more meaningful, they had busier teaching timetables and incidentally less time to observe.

In short, the vast majority of student teachers in the first round of interviews explicitly and implicitly preferred having a focus for their observations that is based on their learning needs in order to know what to look for. However, this high tendency to have focused observation was more apparent in the questionnaire.

Student teachers' second round of interviews

All student teachers talked about having a focus in their observations. The majority of student teachers in this round, six out of nine, talked about how focused their observations were, but the degree of focus and number of focuses among these six student teachers were different. Whereas student teacher 8 and student teacher 16 had two or three focuses per lesson, student teacher 6 had one only. This is a change in student teachers' observation technique. The reason for adopting a more focused approach in the second placement according to student teacher 17 was due to the teaching experience they already had which was exemplified by being unable to comply with the instructions to focus his observations in the beginning of the course:

To be honest, they do encourage you to have a specific focus right from the start; the university tells you, ‘When you’re doing an observation, don’t try and put everything; just have a specific focus, which is the advice I started taking two or three months into the course . . . Yeah, there was a lot going on and you don’t really appreciate what the teacher is doing, but whereas when you get more experience, you become more aware of what the teacher is doing . . .

This is similar to the first round in which the correlation between the role of teaching experience and focusing one’s own observation was exemplified by student teacher 13.

Another reason for the lack of focus at the beginning of their training according to student teacher 6 was being overwhelmed by the amount of aspects they can see in the lesson and their desire to become accustomed to routines in the beginning:

. . . I wouldn’t have any focus, it was just like you go and watch sort of, sit back and just kind of mainly observe . . . it was probably a bit overwhelming and I was just trying to get used to how the classes work and the structure of everything that I find it more useful at that time maybe to sort of just sit and watch the lesson as a whole rather than looking at the specific things I think.

To have a more focused observation student teacher 3 cautioned against telling the observed teacher about the focus of observation in order to observe as natural a lesson as possible and to avoid teachers’ attempts to impress student teachers.

In short, although fewer student teachers talked about the importance of having a focus in this round, most of them not only preferred having a focused observation but also talked about their own focuses. This change could be conceived as a sign of moving from just endorsing a practice to starting to apply it. An aspect which did not change is their awareness of the role of teaching experience in focusing one’s observation.

School mentors’ and university tutors’ interviews

This sub-theme was mentioned by four mentors and four tutors. All school mentors who mentioned it approved it greatly; according to mentor 2, student teachers’ observations of lessons need to be linked to their learning to teach goals and needs to avoid experiencing shallow observations due to the wide variety of good teachers and

lessons particularly after the first stage in their ITT. This is analogous to the view that learning to teach is a complex, multifaceted skill (Maynard and Furlong, 1993) and of classrooms as a context in which a huge number of events happen simultaneously, quickly and unpredictably (Doyle, 1986: 394-395).

A technique suggested by three mentors, was observing part of the lesson. This strategy, which can make one's observations more focused was endorsed by mentor 2, who expressed the lack of effectiveness in observing whole lessons:

. . . you don't need to go in for a full lesson and sometimes going in for a full lesson, it's an hour and hour and a half long, it defeats the purpose because you go in to pick up elements and atmosphere, introduction and how teachers might interact with the pupils in different ways but by the time you got through an hour and a half of that, it all merges together and all becomes vaguely blurred.

In other words, observing full lessons is more likely to confuse student teachers and overwhelm them due to the huge number of phenomena happening concurrently and instantaneously in the classroom.

Four university tutors out of seven stressed its importance of this sub-theme and they were emphatic regarding the importance of focused observation because student teachers cannot observe everything, to the extent that some of them described unfocused observation as useless. Tutor 7 stressed the importance of a focus for observation in relation to a question about the sufficiency of the current amount of observation:

Is it ever enough? It depends, it depends how focused the trainee is of what it is they are observing for because if they are not clear about what, why they're observing the lesson, then they can observe as many lessons as they like, they're not going to get anything out of it, so it's understanding the purpose of observation that's important I think . . .

According to this view, student teachers do not benefit from observations and become better at observing and teaching automatically no matter how many observations they do if they do not have a purpose for observations, which they fully understand. It is the quality of observations, being focused, rather than their quantity that should be the goal

for observations to make them more effective. One way of doing focused observation according to tutor 4 was rather than ‘making a judgment’, ‘being able to identify key moments in that experience.’ Both Richards and Wajnryb underscore the importance of having a focus through observation tasks to collect information from the lesson and to get a better understanding of teaching rather than to evaluate the lesson or to copy it (Richards, 1998: 143; Wajnryb, 1992: 8). Generally, most mentors and tutors mentioned having a focus and emphasised its importance particularly when it is tied to student teachers’ learning goals and needs. Not only did they equate unfocused observation with shallow, ineffective observations, but also their views regarding it coincided with the literature. A suggested way of focusing one’s observation was observing part of the lesson.

In summary, the vast majority of participants endorsed focused observation, which was very difficult to achieve at the beginning of student teachers’ training due to their lack of teaching experience and being overwhelmed by what happened in the classrooms particularly in the beginning of their first placement. Although some were able to focus on more than a single aspect at this stage, most were observing to familiarise themselves with the school culture at the very beginning of their training.

5.3.3 Focusing on pupils

Student teachers’ first round of interviews

A sub-category of focused observation which emerged in interviews was focusing on pupils. All student teachers in this round talked about what they focused on except three who were not asked this question. Seven student teachers focused more on pupils, three focused mainly on the teacher and five did not have a preference or changed their focus depending on the context. To illustrate, student teacher 14 described

how focusing on pupils occurred as she progressed in the course rather than something which occurred naturally in the beginning of her training:

As you progress through the year, it's been more and more gets towards, what the kids are doing, how the kids are reacting, what the kids are writing, what the kids are saying. Because there's a temptation very early on to look at the teacher and being like, 'what are you doing? What can I do to be you?' Whereas the more comfortable you get being in front of the group, the more you actually look at the kids.

Interestingly, she attributed the ability to focus on pupils to being comfortable and by extension confident, which is normally the result of experience. Similarly, four other student teachers confirmed having different focuses at the beginning of their training such as classroom management or the teachers, which changed later to focusing on pupils. Some of the advantages of focusing on pupils are gauging their learning and enhancing the observer's reflection according to student teacher 3:

. . . so I think there was a shift in my focus from the teacher to the students because ultimately I think, you have to see like if I'm gonna be a reflective teacher, you have to acknowledge what the students are doing and how much their understanding and I think you could have a teacher standing in front of the room doing everything right, but it might not be right for that class, see how to sort of, I think you have to focus sort of on the students in observations.

A good way of checking pupils' learning when focusing the observations on them is to interact with them (see section 5.3.7).

There were some difficulties in shifting the focus from the teacher to pupils. One reason was focusing all one's attention on acquiring new teaching skills which is exemplified by student teacher 8's experience:

. . . I know that you sort of should be looking at the learning and, as a trainee, I am always so aware of how I teach rather than how they learn, which I'm trying to swap, but it's really hard. I'm just conscious of everything that I do at the moment, so mainly looking at the teacher and their strategy or their approach and then I look at how it has affected the students . . .

The difficulty of focusing on pupils at this stage (February 2013) is understandable due to their relative lack of teaching experience. Although this student teacher was not able to focus on her pupils, she was aware that a more important focus was available.

However, since different student teachers learn to teach differently and at different paces, such student teachers may be able to prioritise their own observation focuses, the more experience and confidence they have.

In summary, there was a general awareness and tendency at this stage of student teachers' training towards focusing on pupils due to their developing teaching experience to enhance their reflection and teaching. However, there was also an awareness of the difficulty of changing the focus from the teacher to the pupils.

Student teachers' second round of interviews

Six student teachers out of nine talked about this topic in the second round of interviews and they were divided almost equally in terms of who they preferred to focus on. Whereas two student teachers preferred an equal focus on both the teacher and the pupils, three student teachers preferred focusing on pupils although student teacher 3 preferred it later in the course and student teacher 9 implicitly preferred it since he started doing it more in the second placement. A good rationale for adopting a pupil-focused observation approach is provided by student teacher 1 who contended:

Because one day that teacher isn't going to be there; you are . . . if it's a class you're going to take, you have to see the dynamics in that classroom: what motivates them, what engages them. My first few lessons that I observed, I noticed that there were some classes that hated coming out with freeze frames . . . I used it more in my second placement where I didn't learn much from the teacher; I learned more from the reactions of the pupils because I could teach them, I could deliver lessons that I knew they would find engaging . . . That's why we do the job, isn't it? You do it for the pupils. It's got to be all about them. The minute it is about you, it's not the right job I think . . .

Focusing on pupils in this sense portrays teaching as a dynamic, flexible profession catering for different learners' needs, which is compatible with a reflective approach to learning to teach rather than as an imitation of skilled professionals.

Only student teacher 6 explicitly preferred focusing on the teacher until she became confident of her teaching, which is when focusing on pupils became more

important. Such slight preference to focusing on pupils is more congruent with a reflective approach to observation and learning to teach (Maynard and Furlong, 1993: 81) than an apprenticeship approach (see section 2.3.3) although some student teachers may not be ready for it in the first placement since they feel overwhelmed by the amount of things happening in the lesson and they may lack the confidence to do that.

School mentors' and university tutors' interviews

Only one mentor talked about the sub-category of focusing on pupils. Mentor 2 provided some examples of how he asked student teachers to look at pupils to see if they needed any support or encouragement by interacting with them and to see how the teacher was dealing with their needs. He also trained his student teachers to be able to gauge pupils' different levels of readiness to learn, which was not an easy intellectual exercise. Such practices not only break the lesson down into manageable segments to observe but also provide some kind of structure to student teachers' observation particularly in the overwhelming initial stage of their training course.

The five university tutors who discussed this topic agreed that student teachers' focus should be pupils' learning, rather than the teacher's teaching and hence the need to interact with pupils during observation according to tutor 6:

I guess if you're looking at it and you're saying, 'Ok, I'm only looking at teaching. I want to be a teacher, so I am only looking at teaching.' Perhaps participating in the lesson will distract you. But, in essence, you should not be looking at teaching; you should be looking at learning that is going on within the classroom and that's why getting involved in the observation is actually quite good, quite useful. As teachers, we talk about teaching, but realistically the focus should be on students' learning and preparing a lesson that gets them engaged in with what it is they have to learn.

One obstacle to this according to one of the tutors was student teachers' concern at this stage to deal with pupils' behaviour.

5.3.4 Tracking pupils

One way of focusing on pupil learning is pupil tracking which was built into the course in the first placement. Although there was no mention of this technique in the general course handbook, many student teachers mentioned this in their first round of interviews only (February 2013) since they did not practice it after that, which explains the absence of the second round of interview data for this theme. According to the interviews, student tracking involved following a particular pupil for a whole school day overtly or covertly to empathise with them and to find out the everyday challenges pupils had to face. However, this topic was usually volunteered by student teachers when asked about observing other subjects, which indicates that many of them understood it in a different way than what it was intended to be formally.

Student teachers' first round of interviews

Half of the student teachers in the first round talked about their experiences of tracking pupils, and surprisingly, student teachers' reactions to it ranged from 'loving it' (student teacher 18) to finding it 'awkward and uncomfortable' (student teacher 1). Seven student teachers found it useful and attributed some benefits to it, while two found it uncomfortable. Some of the advantages of tracking pupils were sympathising with them (student teacher 15), seeing if their needs were met and whether they enjoyed the lesson or not (student teacher 14) and seeing how pupils can be 'disoriented' by moving from one subject to another (student teacher 6):

It was more seeing how students' days seem to be very structured but they can be disorientated to go from different subjects; that was useful to sort of think about how I structure my lessons and where students are coming from and where they're going . . .

Nonetheless, the awkwardness of tracking pupils can stem from the lack of boundaries between the student teacher and the pupils and lack of knowledge about the school's behaviour policy according to student teacher 1:

. . . it felt like blurring the boundary between teacher and friend because she was introducing me to her friends and I was sitting with them and I felt like the new girl at school, not the new teacher. So, I think you've got to be careful I think. You've got to be separated from that . . . especially if you're new in the school and don't know the behaviour policy . . . I felt really stupid all day.

However, since the majority of student teachers who experienced it found it useful and since its disadvantages can be addressed by knowing the behaviour policy of the school and maintaining the barrier between the teacher and pupils, tracking pupils seems like an effective observation technique to focus one's observation on pupils' learning, which is not as intuitive and easy for student teachers as focusing on the teacher particularly in the early stages of their learning to teach.

School mentors' and university tutors' interviews

There is a strong affinity of tracking pupils with having a focus and focusing on pupils since tracking pupils necessitates in theory paying a close attention to the children. However, tracking a pupil or a group of pupils was not mentioned by many tutors and mentors. Only two mentors and a tutor talked about tracking pupils and described it as an effective observation strategy. Mentor 5 explained how one of her student teachers benefited from tracking a group of pupils she was struggling with their behaviour management to learn the strategies, tasks and activities from their other teachers which work with them. Mentor 2 pointed out that tracking a pupil also includes their different classmates in different sets and how different classes impact pupils' learning. Other advantages of tracking pupils according to Mentor 2 were to see how different subjects were taught differently and to see a class from the perspectives of pupils:

it's not tracking an individual pupil necessarily because. . . sometimes you got lots of classes so although you're with Freddie, you're actually with kids that you've not seen so far . . . so it's a really good way of getting around in sets of finding out about different teaching styles and finding out the way in which some subjects inevitably deliver their subject differently, . . . so generally speaking tracking is a very good form of observation . . . but the real value there is actually not just seeing it from the point of view of few other teacher, you're seeing it from the point of view of the child.

In this sense, tracking pupils has several valuable advantages such as seeing how other subjects are taught, which was identified by the majority of student teachers.

Concerning university tutors, the vast majority of them did not talk about this topic since it emerged from student teachers' interviews which took place after the university tutors'. Tutor 7, however, pointed out that the purpose of tracking pupils is not to observe other subjects; rather, it is to empathise with pupils and understand what they feel before, during and after their lessons:

. . . And they're coming into your classroom and you expect them to behave in a particular way, go on with your lesson, off you go. And you have no understanding of where they've been before, where they've got to get to next, so the idea of having them trail a pupil is so that they can actually appreciate how difficult that child's day might be sometimes . . .

Thus, tracking pupils not only can be utilised to establish empathy with them but also to help student teachers focus their attention on pupils' learning, which can be challenging to student teachers.

In summary, tracking pupils was associated with several important advantages by the vast majority of interviewees who discussed it, such as examining the learning conditions for pupils, seeing a classroom from their perspective and learning how each subject is taught differently. However, four out of the nine student teachers who experienced pupil-tracking mentioned it in response to the question of whether they observed other subjects or not, which reveals a discrepancy between them and the course leader, university tutor 7, regarding the purpose for tracking pupils.

5.3.5 Observing other subjects

Although one of the goals of this ITT course is preparing student teachers with sufficient subject knowledge (6), the course also aims to enable student teachers to make inter-subject associations in the curriculum and to see what one's own subject can offer to it (6). In the first phase of the course (from September to December) (17),

student teachers were supposed to consolidate their subject knowledge and in the second phase (January), they were expected to ‘explore relationships between their subject and other subjects’ (17).

Observing other subjects was highly rated by the vast majority of student teachers (93.3 per cent) who completed the questionnaire (see Table 5). This shows student teachers’ preparedness to consider and adopt different teaching techniques and strategies from other subject domains. Not only observing experienced teachers in different subjects but also observing peers in different subjects received similar endorsement by more than four fifths of participants (88.8 per cent) (see Table 6). Student teachers’ degree of agreement that observing other subjects in experienced teachers’ classes was a helpful technique in their ITT was very similar to their responses of observing other subjects in peers’ classes. However, like other techniques such as utilising structured observation schedules, this was not a very frequent practice.

Student teachers’ first round of interviews

All student teachers talked about observing other subjects in detail and they mentioned many of its advantages such as being consistent in teaching with other teachers in the school, attempting to understand why pupils reacted differently to different subjects and discovering effective strategies for pupils:

... they [pupils] are going all through the school and experiencing different teachers, I think it’s good to get a sense of the differences because you need a consistency. You need to know that what you are doing follows what other teachers are doing and also to see how pupils change their behaviour in different lessons ... what is this teacher doing that the other teacher wasn’t doing that works really well for this particular class (student teacher 1).

This holistic awareness highlights the significance of being a part of the school culture and community rather than an isolated individual. This is consistent with conceptualising learning as a ‘process by which newcomers become part of a community of practice’ in which ‘newcomers move toward full participation in the

sociocultural practices of a community' (Lave and Wenger, 1991: 29). This process requires student teachers to be 'both absorbing and being absorbed in the culture of practice' which enables them eventually to make the 'culture of practice theirs' (Lave and Wenger, 1991:95).

Another advantage according to student teacher 18 is the standardness of certain teaching techniques:

Because teaching is teaching regardless of what subject you're teaching. There are different techniques for different subjects, so I'm not saying there aren't, but the style of teacher, the method of differentiation, AFL, they're fairly standard in lots of texts . . .

This shows an awareness of the importance of pedagogical content knowledge, which is 'the ways of representing and formulating the subject that make it comprehensible to others (Shulman, 1986: 9)'. Other advantages of observing other subjects are concentrating on pedagogy, making cross-curricular connections with subjects (student teacher 2), avoiding being stuck in how one's subject is taught, taking new ideas from different subjects (student teacher 6) and seeing the wider school life and how pupils are responding differently to different subjects (student teacher 9).

Although student teachers mentioned various advantages of observing other subjects, only three preferred observing one's own subject and only student teacher 3 mentioned a disadvantage of observing other subjects, which was its confusing nature since not every teaching technique was applicable in every subject. In short, observing different subjects was one of the most highly rated observation techniques by the vast majority of student teachers and the advantages they listed were many despite their use of different terminology to express similar ideas. Moreover, not only was there a striking similarity regarding views of the advantages of observing other subjects but also there was an emphasis on the importance of acquainting oneself with the practices

of the bigger community of practice rather than isolating oneself from the other members of school.

Student teachers' second round of interviews

All nine student teachers who were interviewed for the second time talked about observing other subjects. Although four student teachers indicated that they did not observe other subjects in the second placement, almost all of them mentioned some of the advantages of this technique. Some of the advantages were learning new techniques (student teacher 3) and seeing how pupils responded to different subjects to try different techniques with them (student teacher 6), both of which were mentioned in the first round of interviews. Another mentioned advantage was to find a teacher to aspire to, particularly when one's own subject teacher was not the best example to look up to (student teacher 1). According to student teacher 12, observing other subjects enabled avoiding stereotypical ways of delivering lessons and fostered having a 'global' view of pupils at school:

I think maybe it's quite easy to have like a stereotypical lesson like this is the way the Modern Foreign Languages are taught or this is the way History is taught. If you go into other lessons, you see different routines in different things in different departments adopted and also you got kind of a more global view of what kids or the students do in school, so for example you find out that if every lesson they just sit in front of a Powerpoint and in different lessons they do different things or more active things, a more rounded view of what they do

Having a holistic perspective also contrasts sharply with isolation from one's own community of practice and narrow-mindedness.

Another advantage according to student teacher 13 was breaking the boundaries between departments and sharing techniques among themselves, which was also mentioned in the previous round of interviews:

I think there's a massive tendency in a lot of schools to become very subjects area and in your department and I think it helps you to kind of break down the boundaries between professionals and help departments collaborate more and help us to learn from

each other as teachers and we will teach the same students and all have the same knowledge about the students so we know their strengths and weaknesses. I don't think it's done enough actually new sharing of how ideas and methods between departments.

Interestingly, such collaboration across different departments not only aims to make student teachers benefit from others' ideas and innovations, but also it encourages sharing the knowledge about pupils and their strengths and weaknesses to improve one's teaching. Focusing on pupils is an advanced, reflective learning to teach technique. However, there seems to be a lack of utilisation of this technique particularly in this second placement when student teachers are tasked with more teaching responsibilities and have consequently less time to observe other teachers.

An effective approach to observing other subjects according to student teacher 13 was getting 'inspiration' from them and 'reinterpreting' techniques:

Something that helped me when I did maths is reinterpreting things, 'is that a word problem?' Start making of a problem in words for the maths problem, so turning a division problem into, 'OK, you have seven cakes, and three pupils, how many cakes each person gets?' and making it creative and more word based –help some of the students and supported.

Interestingly, getting inspiration from other subjects contrasts sharply with blind imitation (see section 5.3.6).

In summary, there was a consensus among the student teachers interviewed at the end of their second placement that observing other subjects is very valuable and it has many advantages including breaking the boundaries between departments, having a global view of the pupils and reinterpreting practice.

School mentors' and university tutors' interviews

Student teachers' views on the benefits derived from observing outside one's own subject specialism were shared by their school mentors and university tutors. 12 school mentors and university tutors out of 13 mentioned observing other subjects in detail and all of them endorsed this. Most of the advantages were similar to those

mentioned by student teachers, such as exposure to different teaching skills (mentor 2), the possibility that teaching in one's own subject may be traditional (tutor 3), focusing on behaviour management (tutor 6) and avoiding complacency in the strategies used in one's subject only (tutor 7). Mentor 6 expressed the value of focusing on the pedagogy rather than the subject matter in observing other subjects eloquently:

. . . an English trainee observing a science lesson, it takes the trainee into the world of the pedagogy of the classroom teacher; they're not sidetracked by features of their subjects, they're not worried about, 'Is that bit of the subject right?' They could concentrate on the pedagogy for the whole lesson so that's very good because the trainees we train here, you could argue teachers first and subject teachers second but they are teachers and they need the full range of pedagogical skills in order, I think, to be able to teach their subject effectively. If they can't teach, they can't teach their subject.

Subject matter knowledge according to this mentor is an obstacle to acquiring essential pedagogic content knowledge.

Another advantage of observing other subjects is seeing how pupils reacted to different subjects (tutor 1):

. . . It's useful to see how students respond in different subjects . . . and you can see they are not the same in all classes and they respond differently to different subjects, differently to different teachers . . .

This concordance in terms of identifying focusing on pupils' reactions to different lessons and teachers as a potential benefit of observing other subjects is evidence of the recognition of the importance of observing pupils rigorously not only on the part of educators but also their student teachers, which needs to be maintained and emphasised by teacher educators.

In short, there was a very high correspondence in mentors', tutors' and student teachers' perceptions regarding the usefulness and the type of advantages of observing other subjects in this study.

5.3.6 Modelling

Modelling is synonymous with apprenticeship in the context of preservice teacher training (Hockly, 2000: 118) and it is an essential component in the majority of ITT courses (Hockly, 2000: 119). Although it tends to happen during teaching rather than observing, thinking about observed techniques does start during observation itself and has an impact on it. Its definition in the Oxford English Dictionary is ‘to form (something) after, or in imitation of, a particular model; to use as an example to follow (Oxford English Dictionary online, 2014). In developmental psychology it is defined as ‘a process in which one or more individuals or other entities serve as examples (models)’ (VandenBos, 2009: 302) and in cognitive behaviour therapy, it is ‘a technique in which learning occurs through observation and imitation alone’ (VandenBos, 2009: 302). It can be inferred from these definitions that modelling involves three important elements, a model or an example of certain behaviour, observation and then imitation on the part of the observer. Interestingly, observation is a fundamental step in modelling since imitation happens as a result of shown or demonstrated behaviour rather than verbal instructions. Modelling or apprenticeship not only can help student teachers learn complex teaching activities, but also it demonstrates the importance of the concept of situated learning in pedagogy:

Modeling is the early and repetitive demonstration of complex, holistic, and goal-centered activities, as situated in their actual contexts of use rather than decontextualized and broken down for ease of teaching and learning (Collins et al. in Atkinson, 1997: 88)

Whereas there was no question about modelling in the questionnaire, observing with the intention of imitation was widely discussed by student teachers, mentors and tutors.

Student teachers' first round of interviews

All student teachers talked about this sub-theme and the majority of them (11 out of 18) opposed direct imitation and endorsed modifying observed techniques,

adding one's own personal touch and having one's own distinct teaching personality.

Instead of directly copying what he observed, student teacher 13 talked about how he asked himself in every observation how he could modify the techniques he observed to fit his own purposes:

I would see teaching as a social science because it's a science that has the infinite human variable. You can't plan or write down the differences between human beings . . . but I think it's a specific science that changes in every context and in every class, every lesson would be different. And so although there is a lot that can be learned from observing teachers in contexts, you kinda have to make that leap between, 'OK, that teacher teaching and in that classroom how I do that work in my classroom.' That's the question I kinda ask myself after every observation . . .

Direct imitation is not necessarily an example of an effective, successful technique in teaching due to the countless differences among teachers. As Thornbury points out 'the issue is not whether models *per se* are good or bad, but which models to choose from' (1999: 5). Just because an observed teaching technique seems very effective it does not necessarily mean that such a technique can be safely applied in the same way with the same degree of success without taking into account contextual and personal factors and differences. This in turn encourages adopting a reflective approach to observation, rather than a wholly apprenticeship mentality, whereby the observer analyses the pros and cons of observed techniques before deciding to transplant them, albeit in an adapted version into one's own classroom.

Three student teachers in contrast liked the idea of imitation and two others thought that imitation is possible if there is a similarity in personality between the student teacher and the class teacher. The minority's approval of direct imitation could be ascribed to their desire to survive this intensive stage in their learning to do this demanding job, which involves imitating certain classroom routines to help boost their confidence at the beginning of their ITT.

In summary, the majority of student teachers at this stage thought that direct copying was not good for their developing teaching identity and many of them were

already engaging in relatively advanced processes such as figuring out how a good teaching technique can be modified and utilised for their own lessons. This is an indication that the majority of student teachers had a growing understanding of their role as new teachers as early as the beginning of placement two. This also signifies that most of them were aware that adopting an apprenticeship model solely was not sufficient for them to learn to teach, which explains their tendency to reflect on and critically analyse what they observed and to modify what they saw to fit their own classes.

Student teachers' second round of interviews

Modelling was also one of the most discussed themes in the second round as all nine student teachers in the second interview talked about it in detail. All said that they imitated what they observed, although three of them indicated that this happened more at the beginning of their training because according to student 3 'you don't really know what you're doing' and because they were still learning and their teacher personalities were much less developed at that time, as student teacher 1 maintained. However, imitation was not confined to techniques alone since four student teachers modelled themselves on the personas of experienced teachers as well. Student teacher 1 explained why she had to imitate the persona of another teacher:

No, it's like being in a role which as a Drama teacher, it's like, 'right, I'm him now,' especially if it's an intimidating student, it helps to have a strong, male teacher in your mind because as a young blond, it's powerless sometimes . . .

Modelling in this particular example was of a personality rather than a technique as such to manage pupils' behaviour in class by empowering this student teacher rather than for subject matter or pedagogical content knowledge.

Although all student teachers in this round indicated that they engaged in imitation in some form or another, a slight majority of them, five out of nine, said that

they did not imitate directly; they modified the observed techniques and added their own personal touch to them. For instance, student teacher 13 mentioned ‘taking inspiration’ from observed teachers and ‘reinterpreting’ their practice. Despite the widespread use of imitation among these student teachers, two of them implicitly indicated that imitation was a necessary but not a favourable option in the course since they were teaching somebody else’s classes and needed to maintain the routines. For instance, student teacher 16 said:

Yeah, they said, ‘Try to bring your own style in the classroom’, but you’ve got so many hoops to jump through I think it’s impossible. You try to please the school and the university and in between that you try to bring your own yourself . . . I think if you’re quite calm and quite a confident person, it’s probably possible to do that, but personally I find it very difficult. I think you need that class to be your class from day one and have your own set of rules . . . Then you can make mistakes and try again but you can’t make mistakes in your PGCE, it’s all recorded . . .

Whereas mistakes are often regarded as learning opportunities, this student teacher was very aware of the needs to qualify and to please what she regarded as two separate entities: her school and the university. Thus, she deemed experimenting and being creative as risks to avoid because she implied that she lacked confidence, which is an important criterion for improving pupils’ learning and increasing their participation (Le Cornu and Collins, 2004: 30). Imitation in this sense limits creativity and experimentation for student teachers and it shows that what can be necessary to satisfy course requirements may not necessarily be what student teachers desire to do.

To sum up, although modelling was very widely practised by student teachers in their second placement, most of them did not tend to imitate directly. In addition, although imitating a strong persona directly was associated with some benefits such as better classroom management, it was also viewed as an inevitable yet not very desirable measure to pass the course.

School mentors’ and university tutors’ interviews

Modelling was discussed by all mentors and tutors and most mentors (four mentors out of six) did not oppose partial copying of techniques especially for struggling student teachers or to make the transition smoother for pupils when student teachers take over classes from more experienced teachers. Mentor 1 explained the benefit of adopting and adapting the regular teacher's established classroom rules and routines:

I think it has some value; I think it's a balance again because if it's not your style, it can feel very difficult. So, for example, again, my [relative] had another class, the teacher was very experienced, male teacher, big guy, rugby player but very laid back in the classroom. The class was a very difficult class, a challenging class and she couldn't work the way he did because it relied on his relationship with those kids, it relied on the way he had built up that relationship over the years and she couldn't do that again, she wanted it much tighter, much more formal, more disciplined and of course the kids didn't like that at all . . . so that's why sometimes it can help you if you use some of the characteristics or the structures and systems that the teacher uses . . . but you can apply them in a different way.

The importance of history, which can be defined as 'a common set of experiences, routines, and norms which provide a foundation for conducting activities' (Doyle, 1986: 365), is evident here. Because student teachers did not share with the pupils the same kind of interactions, activities and background which were established with their regular teacher, imitating their experienced teachers' techniques directly may not lead to the same pedagogical results that were achieved by the experienced teachers. Another point, which is similar to what student teacher 16 expressed in the second round of interviews, is there seemed to be a clash here between having one's own distinctive teaching personality and surviving in the classroom, particularly since the modelling teacher and the modelled teacher were very different from each other. Although having her own style and personality in a class she was going to take over was risky according to this mentor, the student teacher in this citation should have 'reinterpreted' some of the techniques she observed, modifying them for her own purposes. This problem is more apparent when student teachers take over classes from experienced, popular teachers.

Another example of support of a certain degree of modelling was manifested by mentor 5 who contended that student teachers:

... shouldn't be encouraged to 'I'm just gonna do it my way' because they don't know, they have to learn what the way is, they have to learn a certain amount, there has to be some apprenticeship input ... so it's the coaching model really ...

This is supported by Hockly's contention that modelling is an essential component in the majority of ITT courses (2000: 119), particularly since complex abilities like teaching are most effectively acquired via imitating skilled practitioners and under 'guided supervision' (Maynard and Furlong in McIntyre *et al.* 1993: 78). Thus, imitation was not deemed as a mistake by this mentor; rather, it still had an important role in teacher training, but this was both limited in value and conditional in application since most of the mentors and tutors made compatibility in terms of the strengths of the teacher and the developmental needs of the student teacher a condition for modelling to work.

The majority of school mentors and university tutors (five tutors and two mentors) also contended that student teachers should adapt the imitated techniques to suit their own styles to assert their own teaching identities in front of pupils. Indeed, mentor 2 pointed out the problem in imitation in the long term:

... let's go back to driving again. I guess you could say that if you know the route the driving examiner is likely to take you to, to take your driving test and you practise that route and I guess you've got a better percentage of passing your driving test because you know where all the junctions are and you know where the danger points are and you rehearsed it over and over again so I suppose you could, but does that make you a better driver on the road once you get your test passed? No, it doesn't. It only makes you a good driver in that circle. I think that's the real danger with an apprenticeship model; if you keep it on too long, you lose the individuality, you lose the flexibility and I think you probably get a poorer training as a result.

This means that although imitation can be useful to pass the course, it may not be a viable solution in the long term. An approach that is wholly dependent on direct, blind imitation sacrifices one's own distinctive, teaching personality and hence creativity and

makes a student teacher as a result more reliant on other teachers and less able to adjust to new situations and challenges as a result.

In short, all groups agreed that modelling in the sense of partial copying seemed to be a convenient solution in the short term and earlier in the course whereas the majority endorsed modifying the observed techniques to suit their own classes. Direct copying of techniques and personalities was deemed as a less favourable yet necessary option in the short term in order to pass the course, especially if student teachers had very different teaching personalities from their experienced counterparts. The problem with relying heavily on direct imitation without attempting to modify observed teaching techniques for different pupils and situations was obscuring one's own teaching personality, which may lead to inflexibility and less creativity. A stark contrast can be detected between an apprenticeship approach of direct copying and a more reflective one of reinterpreting observed practice and adapting it for one's own purposes.

5.3.7 Participation

Participant observation is consonant with an ethnographic, research-based approach to observation, which can be discerned in its description by Wallace in which the observer:

... participates, overtly or covertly, in people's daily lives for an extended period of time, watching what happens, listening to what is said, asking questions, in fact, collecting whatever data is available to throw light on the issues with which he or she is concerned' (Wallace, 1991: 76).

This is consistent with the course handbook this thesis examined, which not only recommended adopting an active approach to observing other teachers but also deemed learning to teach, in accordance with the government's view, as a research-based profession (*Secondary PGCE Course Handbook*, 2012: 18). According to the course

handbook, student teachers were supposed to be shown how they can use observation as a research method ‘to examine concepts of teacher effectiveness’:

During the Professional Studies programme you will experience opportunities to work as teacher- researchers within real contexts. You will be introduced to and draw on basic research methodology to examine concepts of teacher effectiveness through interviews, questionnaires and observations of / with pupils, teachers and other specialist staff . . . (21)

Since active, participant observation is essentially a qualitative approach, it attempts ‘to probe beneath the surface of events, to elicit the meanings, sometimes deeply buried, the interpretations and explanations, significance and impact of classroom life’ (Wragg, 1999: 54). This is an important advantage compared to passive, structured observation approaches in which normally the observer prioritises rating certain a priori focuses at fixed time intervals at a more surface level commonly. However, Wragg warns against the selectivity of our thinking which is not easy to dissipate in qualitative methods, but which can be assuaged through ‘rigorous scrutiny of barriers to accurate perception’ (Wragg, 1999: 54). Taken literally, participant observation is congruous with social learning theories such as communities of practice and legitimate peripheral participation which conceptualise learning as a social activity and the result of collaboration and interaction between individuals in a community rather than as an individual, solely cognitive or behaviourist phenomenon.

Student teachers were asked at the beginning of placement 2 in January 2013 about the frequency of their active, participant observation. About a third of the participant student teachers (31.5 per cent) indicated that they interacted with pupils and played a part in the lesson regularly, whilst a little less than two thirds (59.6) did this ‘sometimes’ (see Table 7). This shows that although all student teachers sat at the back of classrooms to varying degrees, they utilised a mixture of observation strategies including participating in lessons and interacting with the pupils. However, for the

majority of student teachers who answered this question, playing an active part during observation and participating in the lesson was not a frequent practise at that point (Mid January 2013).

The frequency of participating while observing was also asked in the questionnaire but in relation to observing peers, which happened officially in the first placement (from September to December 2013). Questionnaire respondents in this study were more likely to participate in lessons and interact with pupils when observing a peer. Almost all student teachers interacted with the pupils and played a part in the lesson when observing peers and they were twice more likely to do that in a peer observation than in an experienced teacher's class (see Tables 8). This could have been because of the similarity of power status between peers and the fact that they were required to plan lessons together which had probably given them participant status even before the lesson started.

Student teachers' first round of interviews

The effectiveness of adopting a participant approach to observation or its lack was raised in interviews. All student teachers talked in detail about their preferences regarding participating during observation or observing silently and the great majority preferred interacting with pupils and being active during observations. Thus, 15 student teachers out of 18 preferred participating in the observation, and only 3 of them preferred observing silently. Some of the many reasons cited for participation were: seeing if the teacher's instructions were internalised by the pupils (student 1), having an idea about how effective teaching and learning were (student teacher 2), building rapport with pupils and gauging their learning (student teacher 3), preparing oneself in dealing with children when starting to teach (student teacher 4), loving to work with

children (student teacher 5) and making observations more interesting and less boring (student teacher 11). For instance, student teacher 16 contended:

Because you get to know what the pupils [are] thinking and otherwise it's only my view . . . I've got this extra activity and all it is translating [to] it's really boring whereas I think, 'Wow, it's really good; the child is being stretched to that and not sitting there cleaning their nails.' . . . you need to get to the minds of the pupils and see what they're doing . . . And you can ask them why they think maybe the teacher's doing what they're doing . . . You can also see how many pupils are on task . . . it's good to see how they respond to you as well . . .

Attempting to uncover pupils' perceptions of lessons and comparing their perspectives with the observer's seems very effective in forming informed conclusions about the efficacy of certain teaching techniques, as long as insightful questions are asked in a suitable manner and pupils are responding truthfully to the questions. In other words, interacting with pupils during the lesson to familiarise oneself with their thinking processes and attitudes towards the lesson is likely to enable the student teacher to go beyond a superficial, surface understanding of the observation in order to triangulate different points of view and form a more nuanced, realistic viewpoint. In addition, this not only trains student teachers in research-based approaches to observation but also focusing on pupils (see section 5.3.3) is more compatible with reflection (see section 5.5.1) which is one of the goals of the course (*Secondary PGCE Course Handbook*, 2012: 18). However, although the course handbook recommends a participatory, active, research-based approach to observation, most student teachers did not participate frequently in experienced teachers' classes according to the questionnaire.

Despite the high preference for participation, six student teachers explained that class teachers usually decided whether student teachers should participate or not. For example, student teacher 17 said:

. . . If they don't say that I'm there, if the teacher doesn't say, 'We have a visitor in the classroom today,' I will probably just sit there and not move, but if the teacher says, 'We've got a visitor. He can feel free to move around and talk to the pupils,' then I will.

This implies that experienced teachers can impose a certain observation approach on student teachers which may not be the most effective option for their learning to teach.

In short, adopting a participatory, active style to observing other teachers was deemed a more effective observation approach, particularly by the great majority of student teacher interviewees, to make observations more interesting, to help pupils and to triangulate different perspectives on the observed lessons. However, such a potentially more effective approach was not always deemed as readily available in an experienced teacher's class due to their authority. Nevertheless, active observation was deemed to be a frequent practice for most student teachers when observing a peer. Therefore, peer observation seemed more conducive for equipping student teachers with a more active, student-focused, self-reliant approach to observation in this sense. To facilitate a participant observation approach, retrospective reporting rather than checklists is a potentially valid idea:

. . . If retrospective reporting, rather than checklists provided by the instructor, is used in the classroom, observations and questions generated by students could guide instruction and perhaps result in greater participation in the learning process (Berg et al. 2002: 277).

Although this combines the advantages of adopting both a structured and a participant approach to observation, one of its disadvantages is the shortness and difference in people's memory retention particularly when it is not feasible for a student teacher to record one's notes immediately after a lesson.

Student teachers' second round of interviews

All nine student teachers in the second round talked about participating during their observations and all of them except one did a mixture of participating and observing silently, depending on several factors such as the class teacher's attitude towards participation. Five student teachers out of eight explicitly expressed their preference for participation and only one preferred observing silently and taking notes.

A reason for participating in observation was to avoid forming impressions based on appearances that could be deceptive, which was also mentioned in the previous round.

For example, student teacher 16 explained:

No, I do interact with pupils; I think it's quite good and important to interact with them because what you see and what is actually going on maybe isn't always the same thing. No if you think they're listening as a teacher when you're teaching, you think, 'Oh, they're doing really very well,' when they're really drawing pictures in their books.

Other reasons for participating were to make observations more enjoyable and less boring according to student teachers 13 and 17 and to be useful to pupils and to help them according to student teachers 1 and 13. Interestingly, two student teachers attributed the increase in their participation to having more confidence; for instance, student teacher 1 said:

Yes, if I feel like I can be useful and the lesson isn't going well, I feel like I can intervene; I feel like I'm qualified enough now to intervene whereas before I felt like, 'Oh, what do I know; I'm only a trainee; I only just started,' whereas now I feel like I understand the standards. I understand how to be a good teacher

Despite the similarity in preference for a participant approach to observation in the second round, being more confident to participate due to an increase in experience was more apparent at this stage. However, participating was not always an easy decision to make according to student teacher 9, for it raised several issues such as:

That something I found interesting as well just going back from placement one, how impartial do you want to be as teacher? Where do these boundaries stop? So, if I was sitting the back of the classroom and watching a teacher and I could see pupils messing around, should I intervene? Should I say, 'Right, you should stop messing around and focus now on your work?' Or should I wait and see how this teacher deals with it?

This ambivalence in this student teacher's decision to participate might have stemmed from differences in school policies and experienced teachers' attitudes towards the value of student teachers' intervention in their lessons which could be seen as weakening the experienced teacher's authority in front of their pupils.

In short, there was a high degree of preference amongst the majority of the nine student teachers in this round of interviews for participating in observations to achieve

many advantages which might not have been available otherwise and provided that the teacher allowed such interaction. This preference remained consistent in both rounds of interview (February and May).

School mentors' and university tutors' interviews

Participation in observation was discussed in detail by all mentors and tutors. Like student teachers, most school mentors, four out of six, agreed that participation and involvement with the pupils during observation was needed in order to gauge pupils' understanding and to avoid boredom which is inherent in a passive approach to observation, according to mentor 4:

I encourage students to get, maybe not to get involved in the activities but to get certainly circulate when it is appropriate when the students have sort of got on to a task, go and look at the books or go and ask the students some questions to see how they're getting on or go and speak to the teacher when it's appropriate and ask them why they did certain things. I think it will be just sitting at the back can be quite a boring experience and I think if you get involved with the students and ask them whether they're enjoying their subject or have a look at their books, it can make it a lot more meaningful.

Unlike student teachers and mentors, university tutors were divided regarding their views on student teachers' interaction with pupils or observing silently. Whereas two university tutors explicitly endorsed a participant approach to observation, one preferred a non-participant approach. The other five tutors, out of seven, did not have a clear preference since they saw both styles as equally valid depending on many variables such as the school, the teacher, the lesson and the pupils. Although the majority did not consider participation as ineffective, they were more cautious regarding the potential disadvantage of the observer becoming part of the lesson rather than observing, which was expressed by two tutors, such as tutor 7 who said:

. . . If they are too actively involved, they're not observing anymore, they're doing, they are not thinking about it. There is a technique to observation; now, you may be able to say, 'OK, I'm looking at what's happening here, the fact that I can't intervene is making me feel uncomfortable and it's probably making it look to the classroom as though I should be doing something that I'm not because that can be difficult. . .

However, tutor 4, who was emphatic regarding the potential benefits of participation, described it as more 'conducive to producing an effective teacher' and tutor 6 contended that:

. . . Some people who're being observed, want you to get involved . . . But sometimes students need to be coaxed to do that, so it's not always intuitive for them; they often think that observing means sitting in the back and taking notes and not necessarily getting involved. I think the more developed trainees will get involved.

This indicates that not all student teachers participated in observations despite of their positive attitudes towards it. Additionally, the degree of student teachers' participation during observation is an indication of their level of training. This is not to say that a non-participant observation style necessarily indicates a lack of training and experience; rather, it is suitable under certain conditions according to a majority of university tutors.

In sum, student teachers in both rounds of interviews and school mentors preferred a more interactive, participatory approach to observation, which was recommended by the general course handbook as a research-based method. Some of the most frequently cited advantages were gauging pupils' learning and comparing their perspectives with those of the student teachers' and avoiding boredom. However, the potential disadvantages and benefits of a non-participatory approach were given very little attention by student teachers and school mentors. University tutors were more cautious about their preferences and listed conditions for participant observation to be effective. In addition, student teachers claimed that they participated more in observations of their peers than in those of experienced teachers, who often controlled whether student teachers could participate in their lessons.

5.3.8 Using technology

Although the focus of this study is not video-taped observations, this was included since this study is exploratory. A little less than three quarters of the

questionnaire respondents (70.5 per cent) endorsed using live or recorded video to observe experienced teachers (see Table 11). Interestingly, despite this wide agreement on the part of student teachers, this theme was not apparent in student teachers' interviews. This is because the interviews intended to explore some of the issues in the questionnaire and literature in detail rather than focus on a very different type of observation, video-taped observation.

School mentors and university tutors

Using technology to enhance observations, particularly video, was volunteered by three mentors and three tutors as their suggestions for observations. Two suggestions for utilising technology in observations were one-way glass to observe and video recordings. For example, mentor 6 pointed out:

I like the idea of videoing colleagues' lessons for joint evaluation afterwards. Having full control of the video film offers the observee and observer the opportunity for incredibly close and effective scrutiny of the teaching at any point in the lesson. Some schools in the partnership have this facility, but sadly nowhere near enough. Also, watching through one-way glass is an effective way to observe a lesson. Again, only some schools can offer this opportunity.

Despite the potential of these two techniques, they were not sufficiently available in schools due to financial and logistical reasons.

The use of video was mentioned in several ways; examples included videoing both colleagues and experienced teachers to discover ideas. Videoing experienced teachers incorporated having a discussion with them about the decisions they took and having them analyse their own lessons. Tutor 3 explained how she used video at university, '... we do things in university time where it's a video of a lesson and we try to teach them to pull out the key points ...' The value of this strategy is that if student teachers are already shown how to identify and recognise important events in classrooms at university, they should be in a better position to utilise this strategy when

they start their actual, real-time observations in schools. In addition, tutor 1 explained an unconventional and not very frequent use of videoed lessons:

I don't think it's very practical but one of the things which you do get in schools is videos of lessons. There are few schools in our partnership who have video classrooms, and so teachers as part of their normal practice will book in to the classroom, will video themselves teaching and then watch it back, so to a certain extent, watching or observing an experienced teacher, analysing and evaluating their own lesson, will probably be a useful observation experience, so not actually observing a lesson but observing and evaluating themselves.

The lack of using video in schools highlights the logistical difficulty and high expense of using it. Another interesting observation is that tutor 1 suggested videoing experienced teachers as a basis of student teachers' self-evaluation rather than only for learning new techniques. University tutor 6 used videos of excellent and struggling past student teachers to help current ones to see the differences in teaching experiences.

Using video in observations has its own advantages and disadvantages, which can be exemplified by mentor 5's anecdote of how her student teacher succeeded in identifying the reason for lack of enthusiasm from her pupils. However, this method was not used frequently because it was very time-consuming:

. . . I did it again with a trainee who was struggling pitching and projecting their voice in the classroom and couldn't understand why . . . she wasn't getting animated, engaged responses from the students, from the pupils, but when she saw herself on video, she realised she wasn't showing animation and interest and enthusiasm and that's why she wasn't getting it back from the pupils so then she worked on that and she practised that so I think from that point of view videoing more is just time-consuming because you then have to watch and you have to analyse it, so we tend to use it sparingly because time is an issue . . .

Additionally, tutor 3 complained about two problems which were, some student teachers' lack of realisation of its importance and the difficulty and randomness of finding a suitable naturally-occurring video for a specific purpose:

. . . but actually not all students see the value in that or treat it as valuable . . . They're naturally occurring videos; have been used for research but we also have consent to share. The problem is finding the right video to make the right point. Because when you're collecting naturally occurring data, you've got no guarantees about what's gonna happen in that lesson whatsoever. So, it is luck whether you can find a data extract.

Other problems of using technology such as video in observing other teachers were again logistical due to their high expense and the amount of time they take to incorporate in the training.

In short, although this idea was appealing to most student teachers who participated in this study, it is logistically challenging to achieve on a regular basis; it adds the financial costs of buying and maintaining the required equipment, there are time management problems, particularly for busy school teachers and student teachers who may need to re-view certain segments several times and discuss them and there are ethical considerations for obtaining permission from parents to use videos of their children for training purposes. In other words, although video-taping experienced teachers' classes presents learning opportunities for student teachers, it also presents a set of challenges which are non-existent in traditional on-site observation.

5.3.9 Observing a variety of good teaching styles

Having the opportunity to observe good teachers in the first two phases of the course was one of its requirements (26-28). In the third and last phase of the course, the handbook guidance expected student teachers to observe excellent teachers (*Secondary PGCE Course Handbook*, 2012: 28). This can be justified as the performance of outstanding, experienced teachers might look too fluent and deceptively simple for student teachers to learn (Hagger et al., 1993: 40). The introduction of peer observation, which should have been easier to make sense of in the first placement supports this explanation. Field contends that 'Mentors need to act as examples of good teachers, or at least to recommend colleagues to be observed' (1999: 56).

Student teachers' first round of interviews

Four student teachers talked about the benefit of observing high-quality teachers 'at various points' (student teacher 4), particularly in areas where student teachers are

weak (student teacher 16) and two echoed this contention by criticising the criteria of the school for assigning teachers to observe which were based on availability (student teachers 11 and 15) rather than quality:

... The choices weren't always that considerate; I felt like who would have us rather than what would be best for us. It wasn't done for our benefit; it was done because we had to do something because we're in the placement; we couldn't just stay in the staffroom, so we were given observation (student teacher 11).

Unlike what some of these student teachers wanted, the course book recommended observing good teachers rather than outstanding ones at this stage of the course.

Interestingly, in the second round the nine participant student teachers did not talk about observing good teachers as such. Instead, they talked about observing a range of different teaching styles, which by implication signifies good ones.

Student teachers' second round of interviews

Two student teachers mentioned the value of observing a variety of teachers and teaching styles. Student teacher 16 associated observing a variety of teachers and teaching styles with being 'open-minded' and asking questions since resisting change and not accepting new ideas from different teachers render this suggestion useless. Since student teacher 12 did not have the opportunity to observe enough teachers in the second placement, she felt that this was something she should have done:

... the department I'm in as well, they've only got two members of staff in it at the moment as well as me maybe that is one other reason why I haven't done that much observation because there is only two people to observe, so more people to observe several times I'm sure there is always things you could learn, but there is a whole range of different people I could be watching as well but there is definitely you'd have to learn much from it especially with different groups as well.

Although she was talking initially about her own subject, she seems to emphasise the importance of exposure to a variety of not only teaching styles but also pupils.

School mentors and university tutors

Although not many mentors mentioned observing a variety of good teachers, (two mentors and two tutors), those who did described it as the way many student teachers learn. According to Mentor 5, student teachers are encouraged to observe certain good teachers based on their current needs and focuses:

We also encourage them depending on their weekly targets so if they got a target to focus on assessment for learning, then as a subject mentor will say, 'A good person to observe doing this in Modern Languages is teacher x and a good person to observe doing this in the school is teacher y so they know who to go to and watch to see good practice . . .

Although this contradicts what student teacher 11 said about observing teachers based on their availability rather than needs, it is difficult to draw a valid conclusion considering the small number of participants who suggested this idea.

One advantage of observing a variety of good teachers is to cater for pupils' various needs, which require a variety of teaching strategies according to mentor 5:

. . . And variety is also important in the classroom for the pupils as well, it's no good doing it one way all the time because you're only hitting those students who're learning in that way; you've got to use a variety of different approaches and a variety of different activities and a variety of different techniques; otherwise, I would get bored as the teacher, the pupils will get bored and actually no learning will take place.

Although not many university tutors mentioned observing a variety of good teaching styles, the two who did were enthusiastic about its value and tutor 3 described it as fundamental in 'informed practice':

But it's making sure your practice is informed. You see a range of practices. You see a range of different people doing different things in different ways and you think, 'That won't work for me and that might work for me and it was effective.' But you will also say, 'Well, that teacher did that but it didn't work; I won't do that as well.' So, it's all about making those decisions for your own practice which is better than just saying, 'I'm gonna do it this way.' It's having an informed choice for doing it.

Therefore, the aim of seeing a range of different teachers and teaching strategies is not to imitate blindly; rather, it is to reflect on and analyse which practices are most likely to fit into one's own teaching style and are effective for one's own class.

In summary, despite the small number of participants who mentioned this strategy, it was suggested and hence endorsed by them. Since the student teachers mentioned observing good teachers only in February 2013 and suggested observing a range of different teachers only in May 2013, this shows a change in their conceptions about what constitutes an effective practice for observing experienced teachers and their peers. The inter-relationship among sub-themes in this study can be exemplified by the observation that this theme can also be linked with other themes such as modelling good teachers.

5.3.10 Writing notes

Student teachers first round of interviews

One of the sub-themes which emerged solely from student teachers' interviews was writing notes, which was discussed by 10 out of 18. Some of the advantages associated with writing notes were to help the observer to remember (student teacher 4), to know the focus of the lesson (student teacher 9) and to 'establish a rhythm' at the start of one's training (student teacher 14). However, different ways of writing notes were characteristic of these student teachers; half of the 10 student teachers who wrote notes opted for making detailed ones. Student teacher 3 mentioned how he would document some factual details about the setting of the lesson and how activities were executed if they were effective:

. . . I write on the date, subject and the teacher's name and then I do a sort of quick sketch of what the classroom layout is and write down how many students are in the class and then as the class goes on, I search for . . . things that I pick out so maybe if I were with a slight focus, behaviour management, then I'll be writing down things to do with that. So, if they're doing like if the teacher is doing a countdown or something to get silence, I should write down how they do that and sort of trying and judge how effective it was . . .

Similarly, student teacher 9 came up with a comparable note-making scheme which attempted to reconstruct the lesson plan, which he found challenging and mapped it out for his own benefit:

. . . I would try and map out what I could see of that teacher's lesson plan because we are having to plan lessons has been tough because we didn't have experience in doing so, so we wanted to make sure we were doing it right. So, in a way we compare what we'd planned to what that teacher had planned, so during the lesson, I'll be looking for whether the lesson objectives were clearly displayed and how the teacher went about letting the class know what they're gonna do always look out for behaviour management and always look out for techniques you can improve yourself on . . .

In line with his own approach, he suggested teaching student teachers to write their notes in the form of a timetable to reconstruct the teacher's plan, which could be helpful to them when they teach. In both examples these two student teachers complemented their note-taking with a brief discussion with the teacher to determine focuses for their observation and to discuss the rationale for some of the teachers' decisions.

Additionally, both examples represent a proactive, self-reliant attempt to add structure and focus to an otherwise congested amalgam of happenings. However, although a majority of student teachers wrote notes for observation, not all of them adopted these detailed ways of reconstructing the lesson plan due to an inclination to participate during observations (student teachers 2, 6 and 9) and to lack of knowledge about teaching at the beginning (student teacher 15).

In summary, although a majority of student teachers indicated that they took notes and mentioned some of its advantages, a minority still preferred adopting a participant, active approach to observation to help pupils. A minority engaged in a factual, detailed scheme of writing notes to record facts and to reconstruct the lesson plan coupled with a discussion with the class teacher to focus their observations more and increase their value.

Student teachers' second round of interviews

As in the first interview, most participants, six out of nine, said that they engaged in writing notes. Some of the attributed advantages to writing notes were to help them in remembering certain aspects in observed lessons (student teachers 6 and 8) as in the first interview and to choose one's own targets (student teacher 19) rather than

to follow the targets of an observation checklist, which may not all be relevant to a teacher at a certain stage in their training.

Two student teachers indicated that they wrote fewer notes; for example, student teacher 9 had deviated from his scheme of writing detailed notes by the first interview because of team-teaching in which he became a fully participating assistant teacher. Student teacher 8 mentioned another reason for writing fewer notes which was becoming more selective and being more able to concentrate on what was important for her by that time. Another advantage of this practice for student teacher 8 was the opportunity to go back to her notes and to attempt to incorporate techniques she wrote about in her own teaching.

The first placement when I was observing, I thought of writing down everything; I did become more selective of what I write down in the second placement. I think I sort of assessed myself; I knew where my strengths were, so I'd find it more helpful to write down things that I wasn't so good at yet or wasn't so confident in, so I could sort of see how they did it and that became more important than everything that I did . . . I felt like I wouldn't write something down for the sake of it; I would write something down to help myself remember the way that they've done that and that and I would then look back at some observation notes and try and experiment myself and maybe adapt what they've done.

This is reminiscent of what student teacher 3 mentioned in the first interview. Writing observation notes here seems to be a part of a cyclical process of teaching, observation, note-taking and then teaching again, rather than an isolated activity. In this cycle, being selective in note-taking and the choice of what to focus on were heavily influenced by the student teacher's experience of teaching. However, this was not the case with student teacher 1 who did not make use of her observation notes and student teacher 14 who continued to write down notes about everything she noticed rather than focus on a certain aspect.

In short, half of the student teachers who indicated that they wrote notes in observations by the second interview explicitly preferred this practice. The observation notes for the most part became fewer and more focused due to increasing teaching

experience. However, only one of these participants explicitly indicated that she did not make use of her notes. These results signify an increasing amount of evidence of the variability of school training practices as well as a degree of randomness in terms of the benefits of observations for different student teachers. Surprisingly, despite the tendency for being more selective and focused when writing notes by the second interview, the scheme of reconstructing the lesson plan was not mentioned in the second interview.

5.4 Pre-observation techniques

Two strategies for observation have been identified by student teachers, university tutors and school mentors which tended to happen before the act of observation itself. These were having a pre-lesson discussion and having the lesson plan in advance.

5.4.1 Having a pre-lesson discussion

Since student teachers require some information about the teaching objectives and reasoning behind the lessons they observe (Tomlinson, 1995: 48) before and after the lesson, the usefulness of pre-observation discussion with the experienced teacher, was asked about in the questionnaire. A little more than a third of the respondents (41.6 per cent) indicated that they did not engage in any pre-observation discussions with the experienced teacher (see Table 10), which is understandable considering that experienced teachers are usually very busy. The vast majority of those who had a preliminary discussion thought that it was ‘helpful’ rather than ‘very helpful’, which is almost twice the number of those who perceived it as ‘very helpful’. This is a little surprising and could be attributed to experienced teachers’ tight schedules.

Student teachers’ first round of interviews

Not many student teachers mentioned talking to the teacher before the lesson, only 3 out of 18 and even those who did, did not talk in detail about it. However, student teacher 3 mentioned many important advantages of talking to the teacher before the lesson such as having some background knowledge or expectations about the lesson and being on the lookout for some pupils or points of interests.

Ideally I talk to the teacher beforehand sort of to find out what they are actually covering in class and maybe I'll ask them sort of to give them a generic question of what I need to look for in this class and some teachers would tell me about an SEN student where some would tell me about student who have behavioural issues . . . so they sort of immediately flag up something that I can watch out for and see how they're dealing with that . . . because obviously they know them better so if I can mingle with them and see sort of their expectations and know what to look out for, yeah.

Despite these important advantages, this student teacher was realistic in terms of the occurrence of this practice since he said 'ideally', which may explain the dearth of student teachers' references to this technique. In fact, the likelihood of having a pre-observation discussion depends on several factors which are, on a formal level, mainly made by the institution or administration of the course and informally depends on the relationship between the student teacher and the class teacher and how busy they are.

Student teachers' second round of interviews

Only one student teacher out of nine in the second round of interviews suggested having a pre-lesson discussion with the class teacher. Despite the potential of such discussions in making student teachers' observations more focused, this could be due to lack of time on the part of both student teachers and school teachers particularly in the second placement when student teachers were expected to teach a 75% of a teaching timetable. Other explanations are possibly that this question was not in the interview schedule or simply because there was a lack of awareness of its importance on the part of small number of participants in the second round of interviews.

School mentors' and university tutors' interviews

Having a pre-observation discussion was suggested by only one tutor and one mentor.

The reason for this was to help student teachers have a focus and a purpose before observing. For example, tutor 4 contended:

I think you always need to know what it is you're going to look at, and I think sometimes if there isn't any sense of dialogue prior to that observation, it's not about looking for the wrong things, but you don't have that sense of focus . . .

However, although this suggestion and having the lesson plan beforehand facilitate focused observation, which is discussed below, they do not always happen due to time constraints particularly for class teachers. This is supported by questionnaire results in which a little more than a third of the respondents indicated that they never had pre-observation discussions with experienced teachers. However, the vast majority who had discussions agreed that they were helpful.

5.4.2 Having the lesson plan beforehand

School mentors and university tutors

Student teachers did not mention this strategy possibly due to rarity. However, it was suggested by a mentor and a tutor in order to know the purpose and aim of the lesson.

Tutor 7 expressed this idea:

Before the observation, they should get the lesson plan from the teacher so that they understand what the focus of the lesson is and what the aim of the lesson is and what the objective, the particular objectives within that lesson are going to be so they know what they're looking for in terms of how the pupils progressed; that's how they should be usually focusing on.

The idea of having the lesson plan prior to the lesson is one strategy that can be utilised to facilitate focused observation during the lesson. Having the lesson plan before the lesson can also be accompanied with having a pre-discussion with the class teacher although this is not necessarily always the case. However, as mentor 3 observed, accessing the lesson plan before the lesson was not always the case since it took time and not all teachers were able to do it:

. . . Ideally, they should meet with the teacher they're going to observe beforehand to talk through the plan of the lesson, then observe, then have time afterwards to discuss the lesson, but in the real world of the school, that is often very difficult to fit in, so the time available is very short, some make time for it, some teachers, but others don't.

This idea raises the challenge of applying potentially beneficial observation strategies which are feasible within the constraints of the ITT course. Since not all schools applied this strategy, this raises the issue of the variability of teacher training practices across different schools and the possibility of ensuring that good practice is adhered to by all schools which train teachers.

5.5 Post-observation techniques

Not many strategies were identified by student teachers, school mentors and tutors for post-observation. The suggested ones included having a post-lesson discussion with the observed teacher, linking theory to practice and using blogs and journals.

5.5.1 Having a post-lesson discussion

One of the most frequent post-observation techniques was discussion, which can be exemplified by having a dialogue with experienced teachers and pupils about effective and not very effective teaching strategies. Discussion was considered as another way of learning to teach and one of the requirements of the course (18). Student teachers' learning benefits greatly from observation when mutual examination of the observed lesson with observed teachers occurs (Tomlinson, 1995: 38) and Field asserts the importance of a post-observation discussion (Field, 1999: 50). This strategy was asked about in the questionnaire and the vast majority of questionnaire respondents (97.43 per cent), who saw this option as applicable agreed that post-observation discussions with experienced teachers were helpful whereas only 12.4 per cent indicated that post-observation discussions were not applicable (Table 11).

Concerning the helpfulness of post-observation discussions with peers as part of student teachers' Collaborative Paired Placement (CPP), student teachers' perceptions

were very positive since the vast majority of them (94.52 per cent) thought that it was either 'helpful' or 'very helpful' whereas a little less than a fifth of the participants agreed that this question was not applicable (Table 12). However, it seems surprising that as many as 17 per cent did not engage in this kind of discussion as part of their CPP considering that they were required to spend part of their time collaboratively planning, observing and discussing lessons with their peers.

Student teachers' first round of interviews

Most student teachers in the first round suggested having a discussion with the observed teacher, 11 out of 18. Some of the benefits associated with such discussions were asking the teacher about things that were difficult to notice such as differentiation (student teacher 1), promoting reflection (student teacher 3), comparing the perspective of the observer with that of the teacher (student teacher 3), linking theory to practice (student teacher 4) and seeing whether the lesson went according to plan or was an irregular one (student teachers 3, 11 and 16). For instance, student teacher 11 maintained:

. . . So, you've done the observation, you've written all these notes and maybe reflect really quickly on what and talk so that you know what's going on in the teacher's mind when such and such happened whether that was intentional, whether they planned that, whether they did improvise. You can understand the process more because when you're observing, you're only seeing the end result; you're not seeing what's going on in the teacher's head and that's the missing part because you've talked to the students and you can't talk to the teacher when the teacher is [teaching] you can't stress the teacher too much . . .

This is evidence of awareness of the complexity of teaching and an attempt to transcend what is observed by triangulating it with the perspective of an important member in the classroom. Such awareness not only fosters reflection on the part of student teachers but also it is interesting that it could occur as early as the beginning of placement 2.

One of the suggestions to foster discussion was observing in groups. Group feedback discussions are an important part of feedback, which can promote reflection

on teaching and the spreading of good teaching techniques (Pattison et al. 2012: 136). However, only four student teachers mentioned it. An advantage of observing in groups according to three of the four student teachers who suggested having a discussion after such an observation was sharing ideas. Student teacher 2 suggested choosing a difficult aspect such as differentiation to observe and tallying it to compare one's findings with other student teachers' and student teacher 12 suggested using an observation sheet while observing in groups. Student teacher 12 also suggested that such observations should be focused because she was not good at focusing her observation. However, despite the appeal of this idea, student teacher 15 mentioned two disadvantages; first, pupils may become nervous especially if the number of observers is big and class teachers may tend to attempt to impress student teachers rather than teach normally.

Student teachers' second round of interviews

Surprisingly, only two student teachers out of nine mentioned post-observation discussions as a suggested technique for their observation. However, some useful suggestions were provided. Student teacher 3 recommended that the focus of the discussion should be the training of the student teacher rather than the lesson as such and student teacher 16 proposed some practical steps to deal with the problem of lack of time of experienced teachers to do such discussions:

. . . I think lunch time we have one hour each week just for PGCE meetings; I could write them down and then ask them at a later date or just send an email later on after the lesson or in the evening . . .

Since student teachers had less time to observe toward the end of their second placement due to their increasing teaching responsibilities, this explains their lack of mentioning of potentially effective techniques such as post-observation discussions compared to their responses in its first part of this placement.

School mentors' and university tutors' interviews

The sub-theme of post-observation discussions was discussed by three mentors and three tutors; one of the mentors discussed with her students what they observed in the first week of their course. Another useful way of utilising discussion is to observe a class with an experienced teacher or member of staff and to have a discussion afterwards according to mentor 4:

I think if they jointly observe with a member of staff, with an experienced member of staff that would help and I think actually when you mentioned about training for observation; I think that would be really useful because I think you can have a dialogue and you can say, 'Right, did you notice?' The experienced teacher could take them through what they should be looking for or what they could notice and I think that could be a really good tool . . .

The importance of this strategy is that student teachers' learning can be scaffolded, preferably as early as possible in the course, to see how an experienced teacher views a lesson, dissects it and evaluates it rather than to leave new student teachers to learn to observe solely by trial and error. It also reveals to student teachers some of the shortcomings with their observation approach particularly through discussion with an experienced teacher.

Regarding university tutors' perceptions of this strategy, one of the benefits of a discussion with a subject mentor according to tutor 4 was understanding learning and its effects on pupils rather than judging teachers and such discussions according to tutor 3 help them make decisions about what works for them from a range of different teaching practices.

. . . So, actually, they weren't very good at handling a particular behaviour in terms of students' worrying of short answers not detailed answers. I might say, 'What practice have you seen? How do other teachers handle that?' It leads us to show me they haven't seen any teachers do that and they need to go and do more observations or they haven't thought about that at all and made those connections and that discussion generally enables them to make those connections.

The challenge was to find teachers who were free and willing to observe with student teachers and to have a discussion with them.

In summary, although this suggestion was mentioned by few student teachers in the second round and almost only half of the school mentors and university tutors, nearly all the research participants endorsed this strategy. However, a slight minority who found this practice inapplicable in the questionnaire, less than a fifth, may have had very few to no opportunities to do this. A good suggestion was observing the lesson with another experienced teacher and to discuss the lesson together who can provide more objective, disinterested feedback.

5.5.2 Linking theory to practice

Another post-observation strategy identified in this study is linking theory to practice. One of the objectives of the ITT course according to its general handbook is to help student teachers link theory to practice in their professional studies via the school context (*Secondary PGCE Course Handbook*, 2012: 20). Indeed, one of the potential benefits of observation in an ITT context is facilitating the linking of theory to practice for student teachers, which will become beneficial when they teach (Young and Bender-Slack, 2011: 325-326). However, a common problem among many student teachers is that they ‘often struggle with what to record and their critiques in their observations are often superficial and lacking in theoretical connections and analysis’ (Scherff and Singer, 2012: 266). Korthagen and Kessels propose achieving such linkages via ‘active reflection on the development of beliefs’ of student teachers (Korthagen & Kessels in Hancock and Gallard: 2004: 282).

Student teachers’ first round of interviews

Despite the importance of the concept of linking theory to practice, only three student teachers talked about it. Student teacher 13 mentioned attempting to figure out the relevance of one’s observations to one’s teaching. Additionally, although student teacher 11 maintained that it was the student teacher’s responsibility to make

connections between theory and practice, this was facilitated by having onsite training where they could look for issues in their observations they discussed earlier during the day

. . . I think it is difficult . . . but I think what went well was having the Enhanced Partnership Days in school we could discuss something in the morning and then immediately go and see it in practice, so that was really useful because that was very focused and usually structured observation and I think that went really well for our professional studies and much more so when we sat and then . . . talked about it because the disconnect between that and what happens in practice is quite large whereas when you're having the training onsite then immediately see it in practice that such link is very useful. The theory and the practice is something that you did it yourself . . .

Linking theory to practice is far easy and it requires analysis and reflection. What makes this skill even more elusive is student teachers' priorities and concerns at their specific stage in their training. For instance, student teachers at the beginning of their training might be more inclined to learn survival techniques (see section 2.6), specific routines, learn about the school culture and atmosphere and focus on honing their classroom management skills rather than engage in higher order, abstract cognitive associations of theory to practice.

Student teachers' second round of interviews

Only two student teachers out of nine talked about linking theory to practice in the second round, which was similar to the first one. Student teacher 9 described the second placement as more school-based and incidentally more practice-based than the first one. More importantly, although student teacher 1 did not deny the importance of observing in learning to teach, she emphasised the importance of actual teaching and even participating in observation over merely observing silently and making notes. Whereas she likened non-participant observation to theory and reading books in driving, she described teaching and participant observation as actual practice, which was more important:

Yeah, teaching is doing, isn't it? You have to be confident in your classroom and you can't learn that from sitting at the back of the room and making notes; it doesn't matter how inspirational the teacher is, you're not applying it to your own practice . . . Yes, it's like learning the theory before you learn how to drive, you can study the theory of learning to drive, but it doesn't mean that when you get behind the wheel, you can drive a car, you have to practise it, you have to do it. I think it's just like that. You can't read all about teaching and then walk into a classroom and teach in that standard lesson. You have to apply everything as you go along or you'll forget it.

If we accept these two student teachers' perceptions of the first placement as more theory-based and of silent, non-participant observation as theory, this confirms the existence of a certain amount of apprenticeship (mentor 5) and imitation particularly in the first term. Another related theme is the interplay between theory and practice which can be exemplified by the desire of many student teachers to observe again after obtaining some teaching experience in order to focus on some of their weaknesses in teaching. In this sense, the relationship between observation and teaching or theory and practice is symbiotic and cyclical rather than linear or hierarchical. The lack of responses regarding this theme in both rounds of interview is not necessarily an indication of its lack of importance; rather, it may indicate that not many student teachers were able to notice it and act on it especially if they had little to no prior experience in teaching.

School mentors' and university tutors' interviews

Like their student teachers, few mentors and tutors volunteered this practice. Only one mentor mentioned linking theory to practice whereas three tutors suggested this idea. This is done by giving student teachers examples of informed teaching practice which are informed by research in the literature in university sessions'. Tutor 6 explains the importance of both theory and practice:

. . . You can't teach solely through observation; you've got to know the theoretical underpinnings of what goes on in the classroom, but you also have to know how the theory into practice and I think that's where observation comes in . . . I do think that you can become a better teacher through observation but I also don't think that it's only through observation; you have to read, you have to engage in research, you have really to be cutting-edge.

In other words, observation can be deemed as theory, which can inform and enrich practice but which cannot substitute it. However, although the main goal of school placements is to enable student teachers to link theory to practice (Garner and Rosaen, 2009: 329), they often do superficial critiques which lack ‘theoretical connections and analysis’ (Scherff and Singer, 2012: 266). One suggestion to link theory and practice is through reflection on the development of beliefs’ of student teachers (Korthagen & Kessels, 1999 in Hancock and Gallard: 2004: 282). Another possibility for establishing this link is through observation tasks (see section 3.4.6) where student teachers have to make those links and to report and discuss them with their mentors, which were very rare if at all in this course.

5.5.3 Using blogs and journals

The last two strategies which were raised only with university tutors are blogs and journals. According to the six tutors who discussed it, these strategies were used in the past and although they were useful, they could ‘get very descriptive like an outlet’ or they may be not very effective if student teachers did not respond to them as Tutor 4 explained:

This year we chose not to because actually it works for some and it felt like it was giving them another thing and unless it’s going to have impact, which, there were some interesting observations made but I think the other areas that we were focusing on were sufficient rather than to then labour or put them under the pressure of doing something every time they observe . . . and they’ve got enough, they lead a busy life. It wasn’t right for us. But I do see the value in it but . . . and then I think there is something I found, it became slightly invasive because it’s quite a personal space in terms of those reflections and not for me really to make a judgement or intervention on a blog . . .

One of the advantages of blogs and journals pertains to reflection. Tutor 1 contended that blogs are intended to assist student teachers to reflect, tutor 5 indicated that blogs exemplify student teachers’ reflective skills. Despite the lack of time and being stressed on the part of student teachers, Hoult and Carpenter describe a learning

journal as a ‘means for students to engage on a regular basis in order to reflect on their learning’ (2008: 12).

... writing forces time to be taken for reflection; the pace of writing slows the pace of thinking and can thereby increase its effectiveness; they cause learners to focus their attention; they help learners to appreciate whether or not they understand something . . . (Moon 1999 in Hoult and Carpenter, 2008: 15).

Therefore, although the majority of mentors and tutors did not suggest learning journals, they seem very important to improve student teachers’ reflection if sufficient time and attention are allocated to them.

5.6 The institutional aspect

One of the recurring themes in the analysis is the institutional aspect of observation which indicates administrative and managerial decisions on the part of the course providers. The following institutional sub-themes were identified: training to observe, observation tasks, formality of observation and best time for observation. Although these sub-themes are not observation techniques per se, they play an important role in making the process of observation more effective.

5.6.1 Training to observe

Observation is a complex skill which encompasses not only seeing but a range of sub-skills such as ‘perceiving, interpreting, assessing, and reacting’ which normally take place concurrently (Malderez, 2003: 179). It is far from being an in-born, automatic skill as it requires sufficient support from teacher educators (Young and Bender-Slack, 2011: 333-334). However, about half of the questionnaire participants indicated that there were no training sessions in learning how to observe (51.7 per cent) (see table 13). Those who replied that there were training sessions were divided concerning their helpfulness. A little more than half of the remaining respondents indicated that these training sessions were ‘helpful’ even though the vast majority of them did not perceive

them as being ‘very helpful’. Nonetheless, a little less than half of the remaining participants believed that training to observe was ‘unhelpful’ with the majority of them opting for ‘not very helpful’ rather than ‘unhelpful’.

In addition, a little less than three quarters of the student teachers (70.1 per cent) supported the idea of further training in observation techniques when observing experienced teachers and only (29.2) disagreed with it (see Table 14). Further training in observation techniques to improve peer observation was endorsed by the majority of student teachers (71.6 per cent) is (see Table 15). Interestingly, this is almost the same percentage of student teachers who approved it regarding experienced teachers (70.1 per cent). This shows although a slight majority were satisfied with how the course handled observation, a big majority ‘agreed’ that there is a need for further training in observation of both peers and experienced teachers.

Student teachers’ first round of interviews

All student teachers talked about training to observe and most of them said that they had received insufficient or no specific training for observation. In fact, only five student teachers were satisfied with how observation was handled in the course and 6 student teachers explicitly expressed their need for further training in how to observe. For instance, student teacher 11 said:

... sometimes I think time could be wasted because you just end up writing everything down; you don’t really take anything in. I think at the beginning particularly, you’re so overwhelmed by what’s happening and the fact that you’re about to do it; you’re kind of terrified (laughs). I think a bit of guidance would be useful – trying to make the most of it really because it’s such an opportunity and once you’re teaching, you don’t have that opportunity again in your own lessons and you don’t get to see anyone else teach ...

Not all the 11 student teachers who said they received little to no training explicitly requested it, for five were satisfied or thought it would not be necessary, which can be exemplified by student teacher 13’s contention about the difficulty of training student teachers to observe:

Because I think it's a very individual skill and I think as individuals we look for what we need in our teaching practice even as a beginner teacher you come to the profession with certain things of how to do and things like listening skills or behaviour management skills student confrontation or dealing with difficult questions or questioning . . . I think some of the skills come from certain students' backgrounds and their own experience in schools and all the experiences they bring to the PGCE from different workplaces . . .

Although a third of student teachers neither expressed a satisfaction about the way they observed nor indicated a preference for further training for observation, which can be detected in the ambivalence or lack of enthusiasm about its efficacy by student teacher

18:

I don't know whether I need it; I appreciate it. I am training and anything can help you if I see it beneficial. I don't know, it's hard to know what you need; I could come out of that training and [think 'What] a waste of time!' But I wouldn't say no . . . I'm not saying I don't need it, I don't know. You're not marked on your observation skill.

In summary, there was a very high agreement that there was very little or no specific training for observation by February in the course despite its importance in the research literature. Also, there were three competing tendencies in perceptions: a preference for further training in it, a satisfaction with how the course handled it and an ambivalence or lack of awareness of its potential. Interestingly, those who were not very excited about more training did not really oppose it except for student teacher 1 who thought it would be 'boring'.

Student teachers' second round of interviews

The vast majority of student teachers in the second interview said they had no specific training for observation in the second placement, six out of nine, whereas the other three did not specify whether there was any training. One of the two student teachers who indicated that there was training, student teacher 3, mentioned Continuing Professional Development (CPD) sessions as an example of such training. Although the student teachers did not deny the existence of training, they said it was not specific to observation.

Three mentors and all tutors mentioned this sub-theme and five of them agreed that formal training would be beneficial for student teachers. Mentor 2 explained why student teachers needed to be formally trained to observe:

. . . we always task them to do some observations before they come for the formal interview and say, 'Would you make sure you go into the local school and do a couple of days of observation, but what is very interesting is when you say, 'Did you do that?', 'Yes, we did,' 'Fine, what did you discover?' That's when you realise there is a need for some formal training . . .

Another reason for training to observe is the essential nature of observation to student teachers even after the course and according to tutor 6 to know what to look for and to avoid critical judgements of experienced teachers:

I think observation is a double-edged sword, ok? In one sense, they have to know what it is that they are looking for, so they have to be trained to observe. They also have to know that when they sit in the back of the classroom, they often make judgements; they're very keen to be teachers and often the judgements that are made are very critical, which can put a very experienced teacher into a situation where they think they're being criticised by somebody who has got maybe two weeks of experience . . .

However, there was a disagreement in terms of the form of training on the part of tutors; whereas tutor 3 maintained that there was no university based training but only school-based one, tutor 1 indicated that training to observe was not specific to any given session and tutor 2 said that training took the form of a handbook which may have not been enough. Similarly, tutor 5 indicated that training to observe was carried out 'probably implicitly' through 'being shown or explained.'

In summary, the importance of specific further training in how to observe was identified by a majority of participants, which is analogous to Tilstone's contention that learning effective observation requires training (Tilstone, 1998: 2) and implied in Wajnryb's contention that learning to observe is not an easy skill (Wajnryb 1992: 1). Most student teachers indicated that they had no such training sessions, which could be attributed to the conception that observing is an intuitive skill that is learnt on the job or

to logistical constraints such as a lack of time or resources. Although a little less than half of the questionnaire respondents agreed that the training sessions they had were not useful, which suggests some degree of dissatisfaction about the quality of such training for observation, an obvious majority preferred undergoing further training for it. A possible explanation is that different schools might have had different approaches in training to observe. Additionally, participants differed concerning whether such training took place and the form it took as the concept of training was construed differently by different people. Whereas training for some was as simple as a session and some written guidance, it signified more significant portions of their training which were specifically designed for observation.

5.6.2 Observation tasks

Observation tasks are construed in this study as a formal observation assignment where student teachers are required to collect data from observed lessons to investigate a certain pedagogical phenomenon (Richards, 1998: 144). Whereas being required to observe using an observation form is mainly school-based, which is the type investigated in this thesis, writing a homework assignment is not necessarily the same. Observation tasks can be school-based or university based. Another classification is formal vs. informal since written assignments are necessarily formal whereas the actual activity of utilising an observation form and feeding back to one's mentor is not necessarily formal if it is not recorded in student teachers' formal profiles. The literature details many advantages of using observation tasks. Richards gives an example of how observation tasks could be used to foster reflection:

Participation in classroom observation is one way of developing a reflective stance toward one's teaching. An observer can assist an experienced teacher in this process by collecting information about aspects of teaching that a teacher wants to learn more about, information he or she would normally be unable to collect alone. This might involve the observer preparing a written description of the lesson or parts of it, or using checklists or coding systems to capture details of the lesson. The information so collected can be used by the cooperating teacher as the basis for critical reflection and

by the observer who is normally doing tasks as part of a teacher preparation course. (1998: 144).

Other advantages are concentrating on specific aspects, collecting factual evidence rather than making overall judgements (Wajnryb, 1992:8), avoiding superficial student teacher feedback (Copland, 2008: 15) and extracting theories and hypotheses from observed lessons to try them in their own lessons (Kolb in Swan 1993: 243).

Student teachers first round of interviews

All student teachers except two talked about whether they did them. Such tasks did not seem to be frequent since four student teachers said they did not do any at all and six student teachers said they had very few of them and the other student teachers did not mention their frequency but talked about their usefulness. Despite the lack of observation tasks according to these student teachers, six out of the 12 student teachers who did them found them useful and only one student teacher did not find them useful. Student teacher 6 described such a task and why it was useful despite its infrequency:

The only time that happened was during the first placement and we had our professional studies days every Wednesday the first eight weeks I think our placement and we would have a particular focus for the day and then we will spend one lesson where we're going and look for that particular thing that might have been we're focusing on behaviour management and then we will go and watch one lesson and try and make notes about how the teacher was using behaviour management, so that's the only time that happened having a specific focus, which was useful and then we'll come back and discuss what it was that we've seen, so that was quite helpful; that was sort of more organised; that was professional study organised by the school and the university I suppose; we did work for it and had all day then discussed it in the end.

Despite their rarity, this account seems to associate observation tasks with other sub-themes or useful techniques, particularly having to focus on one aspect in observation during the day, discussing their feedbacks in groups and linking theory to practice at the end of the day. However, student teacher 2 suggested that such tasks would be more useful later in their placements because they would have had more teaching experience to rely on.

Student teachers second round of interviews

Although all student teachers in the second interviews talked about observation tasks, none indicated that they had any formal specific tasks for observation since the first interview in February 2013. However, two of them elaborated on their views about observation tasks. According to student teacher 8, observation tasks should be individualised in the second placement since they had more experience to refer back to:

I think it would be helpful if it was individualised, so if it's based on you and your personal areas that you need to improve on . . . that would be helpful. I think if it's a generalised task for all trainees, it wouldn't be so helpful because it was quite generic in the first placement but it was helpful then because we didn't really have much experience in anything whereas now we do have experience

A similar and interesting perspective on observation tasks was that of student teacher 3 who imposed individualised tasks on himself due to the lack of official ones:

Yeah, I did but they were never given to me . . . that was something I sort of imposed on myself . . . which is quite good because they were tailored to what I was focusing on rather than if I feel particularly confident with differentiation and when they're doing an observation on differentiation, it would be useful but maybe it wouldn't be as useful as targeting one of the things that I feel weaker on so I think there's a self-imposed element that was quite nice because there's freedom to it to get out of the lesson what I need to get out of it but there's never any official

While being proactive is a good observation quality (see section 5.7.3), there was an obvious appreciation of observation tasks.

In summary, despite student teachers' claim in the second interview that they did not receive observation tasks, they made a good point about making individualised rather than generic ones due to their increased teaching experience, which could take the form of self-made tasks and were a sign of proactivity. Interestingly, in both interviews, some student teachers were either not clear about the meaning of observation tasks and many conceptualised them as theoretical homework assignments, which was addressed by providing them with an explanation by the researcher.

Although observation tasks were discussed by all mentors and tutors, school mentors did not go into detail about them and there was no one theme about them. Two mentors and four tutors endorsed them explicitly whereas one mentor conditionally by maintaining that they should be tailored to student teachers' needs, which echoed student teachers' suggestion of individualised observation tasks. Mentor 6 was very enthusiastic about them and stated that they help student teachers to 'critique' not only their teaching but also somebody else's:

It helps the trainees have the ability to critique their work and the confidence to critique someone else's teaching I think but generally speaking very effective. Some trainees struggle to take on board criticism and to self-reflect, which gives them a bit of a problem when it comes to looking at somebody else . . .

Although according to this mentor, observation tasks are helpful because they help student teachers to reflect, they are not easy to apply for all student teachers due to the difficulty of self-reflection and making use of criticism. Two other mentors mentioned brief examples of such tasks; mentor 3 mentioned giving student teachers an observation form to complete, whereas mentor 5 indicated that student teachers received MA-like assignments from the university.

In contrast, tutor 4 said that student teachers were required to reflect on their growing teaching personality via prior experience. She also indicated that student teachers had to analyse 'critical incidents' which occasionally pertained to their observations. Although many tutors rated observation tasks highly in terms of having a positive impact on student teachers' training, some of them pointed out student teachers' lack of appreciation of them, particularly because they were too eager to start teaching as quickly as possible, as tutor 7 contended:

I think they're extremely useful, but I'm not sure the trainees always appreciate how useful it is like I say until later on so I think sometimes and like I say they get frustrated

because they want to get started and we will say to them, ‘No, just sit back a little longer,’

This is related to idea of having some teaching experience (see section 5.7.2), which was also associated with a higher chance to reflect on the part of student teachers and having a focus.

Another problem regarding applying observation tasks, which was identified by student teachers, was their scarcity in the course, as tutor 6 said:

... that’s quite limited. I don’t think there are any mentors that I know of that say, ‘you need to do this,’ and ‘you need to write this up.’ I do know mentors will have discussions with their trainee about the observations that they have done, but there’s nothing concrete that could show to, say, an Ofsted inspector or an external examiner to prove that you had engaged in that as far as I am aware.

Although such discussions between mentors and student teachers could have involved or could be seen as informal observation tasks, a more profitable approach might be formalising them to make them perceived more seriously and applied more rigorously. Therefore, they could also be included in student teachers’ PDP’s.

In summary, although the participants agreed that observation tasks were scarce, they agreed about the benefits of observation tasks such as linking theory to practice, having more focused observations and reflection, which was described as both a goal and a challenge in such tasks. Also, the conceptualisations of many student teachers of observation tasks seemed to be restricted to theoretical homework assignment, which could be remedied by familiarising them with different types of observation tasks and their mechanisms.

5.6.3 Formality of observation

Student teachers’ second round of interviews

About half of the student teachers in the second interview, 4 out of 9, mentioned the sub-theme of formality of observation, which could be coded under the theme of the institutional aspect of observation. In fact, all student teachers in the second round of

interviews described the status of observing in the second placement as informal. Since observations were informal in the second placement, particularly after the first interview in February, some of them said they had to be proactive in seeking observations such as student teachers 8 and 12. However, half of these student teachers explicitly preferred formalising the process of observation and making it a requirement in the course throughout the second placement. Student teacher 12 suggested including student teachers' observations in their PDP files:

. . . there is kind of no place for them, observations that we've done in assessment folder. So, because there is no space for them there, they kind of like slipped down the priority file maybe . . . Yeah, not to create work for future PGCE students, but yeah if it was organised for you not necessarily assessed but kind of monitored, the observations that you've been made . . .

Although these student teachers were proactive in seeking observations in the second placement, some of them wanted to formalise it and to make it a requirement even in the second placement despite their busy timetables. This indicates their belief that observing other teachers was essential to improving their teaching even after acquiring some teaching experience. The fact that this sub-theme was not obvious in student teachers' first round of interviews could be ascribed to the requirement that student teachers needed to do intensive observations at the very beginning of the course. Another reason was the relatively little teaching experience student teachers had by the first interview to identify their own targets for observations.

School mentors' and university tutors' interviews

Two mentors and one tutor mentioned this sub-theme. Interestingly, all volunteered opinions, (two mentors and 1 tutor), recommended formalising the process of observation by making it built into the course in order for student teachers to acquire not only the subject knowledge but also the pedagogy as tutor 3 contended:

So, all students should be observing their peers three times a week, but not all schools put in the timetable that students should observe experienced teachers. So, sometimes it depends on the student being proactive and say, 'I would like to come and see you teach,' whereas I prefer it if it's built into the timetable that once a week face all these teachers . . .

According to mentor 4, student teachers can engage in informal observation once they have some teaching experience:

. . . so they got the confidence to go directly to staff and take initiative of their own learning I suppose rather than all be directed through the mentor . . . by the time they come to the end of phase 2, they are able to reflect on their own teaching practice and identify their own needs.

Interestingly, since being proactive is helpful when a student teacher searches for teachers to observe, this was identified as a personal quality for effective observation (see section 5.7.3), which signifies an overlap in the main themes identified in this study.

5.6.4 Doing more observations and the best timing for this

According to the course handbook, student teachers were expected to be given opportunities to observe throughout the course and although in phase 3 student teachers were supposed to teach about 75% of a teaching timetable, they were still expected to do observations among other things in the remaining time (*Secondary PGCE Course Handbook*, 2012: 28). However, according to student teachers' interviews, they were doing considerably fewer observations except some special cases.

Student teachers' first round of interviews

One of the emerging sub-themes was student teachers' need to do more observations, which was mentioned by 13 student teachers in the first round of interviews. Three other sub-themes emerged out of this one which were regularising observation, conceptions about its desired quantity and its relationship with teaching. First, five student teachers suggested maintaining observation regularly throughout the course, but not necessarily doing many observations, and they criticised having one

week full of observations in the beginning and stopping it later. Although five other student teachers wanted to do more observations and deemed an increase in its quantity as a guaranteed advantage, they did not associate this idea with a regulating or formalising procedure. That is, they thought that an increase in the amount of observations would be useful even if this was not on a regular basis. Although this scenario might not have been ideal for all student teachers since having no official requirement to observe regularly would put less pressure on their already busy schedules, it might have been more consonant with their situation since they were becoming busier in the second placement and may not have been very happy about any added commitments even if they deemed as useful in the long run. In fact, this problem of not having enough time to observe as much as they would have liked was mentioned by three student teachers. For example, student teacher 14 said:

I mean ideally I would rather do more personally . . . I would wanna see more classes, but I think I can understand why we sort of don't see very many really.'

Similarly, student teacher 12 said:

I could still have been doing more observation, but because I was finding the workload so stressful, maybe I wasn't enthusiastic to take out the hours doing different things.

However, wanting to do more observations was not always tantamount to being unsatisfied about the number of observations they had done which was the case with student teacher 12. In a nutshell, student teachers were divided equally between increasing the amount of observations and only doing it on a regular basis without necessarily increasing its amount. Another related issue was their concern about their lack of time to engage in more observations.

Student teachers' second round of interviews

The majority of student teachers talked about the need to do more observations in the second placement, six out of nine; student teacher 8 explained why she needed to do more observations in the second placement as a result of her increasing experience:

I would've liked to have had a couple more towards the end of my placement I think just to because at first I was so overwhelmed so many different things to think about. I didn't really know what to observe and gradually I've got targets so I went in there to focus on those different areas but now that I've got more general or generic understanding, everything really, it would be helpful just to go in and see a few different lessons so I would be able to say, 'Well, that was better than that one for this reason,' or 'I think the student might make more progress in that lesson than that lesson because.' And I don't and unfortunately I don't think we'll get that opportunity to have those observations at the end, but I think it would be helpful.

However, the dilemma here was logistical since student teachers in the second placement had full-time teaching timetable and were, arguably, busier compared to their first placement. The percentage of student teachers who preferred to do more observations in this round of interviews was higher than the first one. While student teachers should have engaged in more observations by the first interview, particularly at the beginning of each term, they normally did much fewer observations after the first interview (February). Because of this and since student teachers should have acquired more teaching experience by the second interview (May), which was associated with becoming more focused in observing, this can explain the tendency of student teachers to appreciate the value of observations more and the desire to increase its quantity.

School mentors' interviews

The last sub-category in the institutional aspect is the best time for observation, which was mentioned solely by two mentors. Both mentors who mentioned this issue, preferred observation to commence very early in the terms for two reasons; first, student teachers need to see the very first classes experienced teachers deliver to see how they establish themselves, their routines and expectations in the class and to become accustomed to it rather than feel it is an extra pressure later. For example, according to mentor 3:

And I think the most valuable time for trainees to observe teachers is in the first week of the year, the school year, which is they're not often in school in their very first week in September when the teachers in school have their classes for the first time, that is when they're doing getting the ground rules in place, establishing themselves with the class, expectations being set out and the way the lesson is being structured . . . By the time you get to October, you don't see that because actually an experienced teacher has then sorted out

the expectations, the children know what the teacher expects so things happen, you don't see what's done before.

Despite the importance of this suggestion, it seems surprising that it has not been applied unless external factors such as the logistics of schools and the teacher training course are the reason behind it.

5.7 Personal qualities

Another theme that is conducive to effective observation of other teachers is student teachers' personal qualities. Interestingly, this was an emergent theme and tutors particularly talked about most of the characteristics. The most frequent one was being reflective and analytical.

5.7.1 Being reflective

Student teachers' first round of interviews

This sub-theme is consistent with Alexander's definition of teaching as 'a continual process of hypothesis-testing framed by detailed analysis of the values and practical constraints fundamental to teaching' (in McIntyre, 1993: 43). Reflection is important in learning to teach as 'it is through reflection on professional action that professional expertise is developed' (Wallace 1991: 82.). Some suggestions for applying reflections in the literature are journal writing and critical incident analysis (Hamlin, 2004: 171). Understanding the importance of reflection and research regarding 'professional issues' is a goal according to the course handbook (*Secondary PGCE Course Handbook*, 2012: 6) as at university, student teachers were supposed to know important concepts, explore resources, reflect and compare their experiences with other student teachers which could be difficult to arrange in school (*Secondary PGCE Course Handbook*, 2012: 18). The course handbook recommended adopting an active (by extension participant), critical and reflective approach to observing other teachers (*Secondary PGCE Course Handbook*, 2012: 18).

Student teachers' first round of interviews

Seven student teachers out of 18 mentioned this topic. These 7 student teachers did not talk about reflection as such; rather, they talked about how other practices can enhance it, which implies that they deemed reflection as a valid goal in itself. Some of the practices which fostered reflection were post-lesson discussions (student teachers 2 and 4), focusing on pupils and gauging their learning (student teacher 3), observation assignments (student teacher 6), a structure for writing things up in an 'individual way' where reflection is 'encouraged' rather than 'forced' (student teacher 13) and analysing one's observation notes (student teacher 14).

Student teachers' second round of interviews

Four student teachers out of nine of talked about examples of being reflective as a result of observation. Student teacher 12 maintained that being asked to provide feedback for the lesson she observed improved her reflective skills:

Yeah, because it makes you kind of reflect a bit on it and you're kind of new to the next kind of step and it's nice because obviously they value your opinion a little bit even if you're just a student teacher; they're interested to know what you think . . . Yeah, I think it helps develop me because they're gonna make sure you're more reflective and to give them an idea of how deeply you're processing things.

Another instance of being reflective was student teacher 3 who moved from seeing what the teacher did to analysing critically their practice:

. . . so I did observations as a sort of to put me in the position as if I was examining the teacher sort of to see what I would pick out in the class so whereas before it was kind of to know what the teacher does, this time try to have a conversation and sort of critically analyse the other teacher . . .

It is interesting that in both instances reflection was accompanied by having a discussion with the class teacher. Another point worth mentioning is that reflection particularly in the second example, (student teacher 3), did not happen before; that is, an advanced skill like reflection was not easily attained in the beginning of the course

when student teachers had little or no teaching experience and were overwhelmed by the number of variables happening simultaneously in the classroom.

Whereas student teachers who mentioned reflection as a goal in the first interview, which was in line with the goals of the official course handbook, they gave examples of how they started practising it in their second interview. This highlights the difficult nature of being reflective in this ITT course, which is analogous to Hamlin's contention that it is difficult for student teachers to reflect on broader issues:

Expecting student teachers to maintain a reflective focus that connects practical decisions within their classrooms to broader social issues is problematic. Once engaged in practice teaching, student teachers' concerns become more focused on whether or not students like them and whether or not they are doing the task correctly . . . they rarely progress beyond issues of self, task and students to questions of whether or not their practices (or the practices of their mentors) are just or ethical or lead to the improvement of society . . . (Hamlin, 2004: 169).

Another implication of student teachers' change of responses in the interviews was the notion that being aware of the benefit and value of a certain goal or practice does not necessarily guarantee being able to accomplish it unless certain conditions are met, which involved having more teaching experience in this case.

School mentors' and university tutors' interviews

This sub-theme was discussed by four mentors and four tutors. According to tutor 4 and tutor 6, reflecting on another teacher practice was not an end in itself; rather, it was a step towards reflecting on one's own practice. Some of the identified advantages of reflection were being able to identify good practice and borrowing ideas that are compatible with one's own methodology and personality (mentor 5), to comprehend what one is observing and to utilise interpretation more. Mentor 5 explained the importance of reflection:

. . . they should be encouraged to be reflective enough, analytical enough to recognise good practice take the idea and adapt it to suit their methodology, their style, their persona, their character . . .

However, the same mentor contended that reflection should be balanced by some 'apprenticeship input' since student teachers did not have sufficient teaching experience and that the prevalent approach according to her then was the coaching model. This account is consistent with some researchers' contention that student teachers require some teaching experience to be able to reflect (Maynard and Furlong, 1993: 81). Likewise, despite the importance of reflection and the disadvantages of an apprenticeship model, mentor 2 talked about the risk of a wholly-reflective model on children's learning and the unpredictability in terms of student teachers' pace and progression towards becoming reflective practitioners:

... there's an element of risk in this and an element of risk is important in schools particularly with league tables that whenever a trainee teacher comes in whenever, they are borrowing children, they are taking those children from their normal experienced teacher and in a sense experimenting on them. Now that's great and needs to be done but I know for a fact that many schools will be thinking, 'This is fine as long as it doesn't impact on the results and children only go through schools once, we can be around for a long time, children go through once and taking a risk with children's lives is considerable risk ... to get to a point where you can be secure with your class and ensure that they're learning, progressing, to get from that security to becoming a free spirit, a reflective thinker is not a straightforward path and it'll depend on strength the mentors, it'll depend on the nature of the school, it'll depend on so many other issues involved in that ...

The element of risk on children's lives and unpredictability of student teachers' learning to become reflective complicate. However, the practised model seemed to be an amalgam of a certain amount of apprenticeship until gaining confidence and security and then pursuing one's own path in learning to teach.

In short, although all volunteered responses recommended reflection for observation and learning to teach, different participants identified different advantages, which indicates that reflection is a broad concept that has many applications and interpretations.

5.7.2 Having some teaching experience

Student teachers' first round of interviews

Another sub-theme which emerged from student teachers' contributions was the advantage of having some teaching experience in observation, which was mentioned by eight student teachers in the first round. Whereas three student teachers described this as a more useful approach to observation than observing without any teaching experience, the other five student teachers implied that by mentioning how they did not know what to look for before teaching, which made them aware of certain weaknesses in their teaching that served as their focuses in later observations. In fact, all the eight student teachers who talked about the importance of being even slightly experienced in teaching associated this with more focused observation, which can be exemplified by what student teacher 7 said:

I think at first it wasn't focused because I'll just see the overall picture like, how teachers teach because obviously I have been teaching in my first placement school and in my second placement school. Now, it's been more focused because I know what I need to focus on, that I need to work on specific . . . standards, NQT . . .

Other advantages mentioned less commonly than focusing on one's own weaknesses in teaching were having a different perspective in observation, the perspective of the teacher, and focusing on pupils (student teacher 11). However, the impediment of maintaining and regularising observation while not infringing on student teachers' teaching responsibilities is a challenge which should be addressed by decision-makers such as course coordinators.

School mentors' and university tutors' interviews

Having some teaching experience before observing was endorsed by two mentors and three tutors. This was because many student teachers did not know what to look for before they started teaching and only after they started teaching, did they realise their

own weaknesses and search for teachers who were good at them. Tutor 2 explained this concept cogently:

... observations at the start are very, not basic, but a bit more formulaic ... critical analysis is a bit more basic; 'the lesson was late', 'the lesson was on time', 'the kids enjoyed it', 'the teacher didn't have to do many warnings', 'it was a good activity because ...' Quite simplistic analysis. Over the time, their analysis should be deeper, 'what was the one or two things that really stopped that being a great lesson? Which of the kids were the most challenged? How do you know? Which were the key things that were actually could've made the lesson going better? But also, they will be more self-directive. At the start, they are just trying to get an understanding of what goes on in the classroom, but later in the year, they should have an awareness of, 'I'm doing well as a teacher. I'm going in the right direction, but my questioning is not as good as it should be. That's a target I've got to work on. Therefore, I will go into this lesson, and I will only look at questioning.'

Having some teaching experience according to this tutor facilitates reflection and deep analysis. However, this idea may seem to contradict establishing observation very early in the course although purposes for observation at each stage are different. That is, whereas some of the purposes of doing observations very early are to pick up how to establish ground rules and personality with the class and make student teachers become exposed and accustomed to the school culture and ethos, one aim for observing after acquiring some teaching experience is to identify teachers who are good at certain teaching strategies student teachers need to improve and to observe them. This, in turn, makes observation a more target-oriented, focused process.

5.7.3 Being independent, proactive and professional

School mentors' and university tutors' interviews

Another recommended personal quality, which was mentioned by two mentors and two tutors, was being independent and proactive and continual learners since the number of observed lessons becomes fewer towards the end of the course and hence the need to be able to manage one's own learning in a continual fashion. Tutor 6 expressed eloquently the importance of being continual learners:

But I also think teachers need to engage with pedagogy. It's not just I have my teaching and qualification, therefore, I get to teach for forty years. No, it's about coming back to

university, learning theory, learning practice continuously, developing your professional self. Observation is good but you have to have the second part to it as well.

Being a continual learner is consistent with Alexander's definition of learning to teach.

Additionally, being proactive does not limit the student teacher to the formal chances of learning to teach offered by one's own institution, which is linked to the sub-theme of formality of observation (see section 5.6.3).

Another personal quality was being professional and gracious in comments and questions with the class teacher, which was also identified by two tutors. For example, tutor 6 maintained:

So, they have to learn to be gracious, they have to learn to temper their comments so when they're asking at the end of an observation, 'Why did you do this? They have to do that in a way that is exploring so that they can learn as opposed to saying, 'Why would you do this? I wouldn't do this kind of thing.'

This not only creates a positive atmosphere for observation but also is conducive to creating good relationships between student teachers and class teachers and incidentally should facilitate their attempts to informally observe those teachers more. Acting as professionals and taking responsibility for their learning were recommended qualities in the course handbook. Being professional according to the handbook means the need to 'set high standards for themselves and their pupils in and outside of the classroom' (*Secondary PGCE Course Handbook*, 2012: 12), which is not limited to observation only as it includes learning to teach in general.

5.8 Findings related to the secondary research questions

5.9 Introduction

In this section, the three secondary research questions regarding student teachers' preference toward observing experienced teachers or observing peers, the degree of agreement in perceptions among the three stakeholder groups, the type of changes in

student teachers' observations if any during the course and future plans for changing their observation techniques are addressed.

5.10 Student teachers' preference for observing experienced teachers

Observing peers is an innovative technique that was required in the first placement, which was introduced in the academic year 2012-2013 according to the course handbook (*Secondary PGCE Course Handbook*, 2012: 26). However, the course handbook does not provide details about how it should be implemented nor does it elucidate it. Observing peers was recurrent in both the questionnaire and interviews. In the questionnaire, although student teachers were asked about the usefulness of observing peers as part of their Collaborative Paired Placement, (CPP), not all the participants agreed that observing peers had occurred. This is indicated by the fact that approximately a quarter of the respondents (23.6 per cent) recorded that the question of observing peer was inapplicable (See table 16). This is surprising given that the first term/placement was officially the main opportunity for this type of observation. Student teachers' perceptions of their experience of observing peers were generally positive: two thirds of student teachers thought that it was either 'helpful' or 'very helpful' (see 16). Nevertheless, this was still much less positive than observing experienced teachers: more than 97 per cent agreed that it was either 'very helpful', (71.9 per cent), or 'helpful', (25.8 per cent) (see 17). This could be attributed to at least two possible factors. First, since the practice of observing peers was new to the course, it may not have been implemented as effectively as the much more established observation of experienced teachers. Another possibility relates to student teachers' perceptions of themselves since many student teachers might have wanted to learn from outstanding teachers and they might have perceived each other as less capable. Indeed, their

comments suggested that they perceived themselves to be very similar in terms of experience and growth since the vast majority of them were young teachers.

In addition, more than four fifths of the questionnaire participants (84.3) agreed that observing peers as part of CPP made them change the way they taught (see Table 19). This is a little lower their responses to the same question regarding observing experienced teachers where 94.3 per cent ‘agreed’ (see Table 18). Similarly, more than four fifths of respondents (87.5 per cent) believed that observing peers helped them understand classroom dynamics better (see Table 21). Although this is a very high percentage, it is still noticeably lower for its experienced counterparts where 97.8 per cent agreed that observing experienced teachers helped them understand classroom dynamics better (see Table 20). The vast majority of student teachers (89.9 per cent) agreed that observing peers helped them understand individual pupils better (see Table 23), which was very slightly more than the counterpart of this question regarding experienced teachers in which only 84.3 per cent agreed (see Table 22). Student teachers’ responses to the statement that observing peers had given them useful teaching strategies to adopt were less favourable since less than three quarters (69.3 per cent) agreed (see Table 25), which is still a good percentage generally. However, their responses here were markedly different from those regarding observing experienced teachers where almost all of them (97.7 per cent) agreed that it had given them useful teaching strategies to adopt (see Table 24). This shows that student teachers preferred seeking experienced teachers for new, beneficial teaching strategies whereas they found their peers more helpful in developing their understanding of individual pupils. Student teachers’ reactions towards the statement that observing peers had given them new ideas to consider were noticeably more positive since more than four fifths of them (87.5 per cent) agreed (see Table 27). However, this was still slightly less than when the

statement referred to observing experienced teachers where almost all of them (98.9 per cent) agreed (see Table 26).

Concerning the negative statements in the questionnaire about observing peers, only about a seventh of respondents (13.6 per cent) agreed that they did not know what to look for when observing peers (see Table 29). This is slightly less than the counterpart of this question regarding observing experienced teachers in which 19.1 per cent 'agreed' with this statement (see Table 28). This slight difference between the responses could be attributed to the difficulty of observing experienced teachers over peers although the difference is surprisingly less big than the literature would suggest. Interestingly, a very small minority of student teachers (5.6 per cent) found observing peers 'unhelpful' (see Table 31), which was exactly the same percentage of student teachers who found observing experienced teachers 'unhelpful' (see Table 30).

In summary, student teachers again agreed, with normally slight margins of preference, that observing experienced teacher was better than observing peers to:

- make changes to their teaching,
- to understand classroom dynamics better,
- to provide them with useful teaching strategies to adopt
- to give them new ideas to consider,

The only exception to this is when the majority of the questionnaire respondents indicated that understanding individual pupils better was better provided by peer observation rather than by observing experienced teachers.

Student teachers' first round of interviews

All student teachers in the first round talked about peer observation in detail and, as in the questionnaire, the vast majority preferred observing experienced teachers to observing peers. Whereas 15 student teachers out of 18 preferred observing experienced

teachers, only two found both equally important. Some of the advantages of observing experienced teachers according to these student teachers were they were better role models (student 1), they had more confidence and teaching experience (student teacher 2), they had more understanding of their class (student teacher 3), they had control over classes (student teacher 6), and they had refined and honed their teaching techniques and corrected their mistakes, unlike peers (student teacher 11). To show why he preferred observing experienced teachers to peers, student teacher 14 likened observing peers to 'the blind leading the blind':

I think it's partly because there's a sense of the blind leading the blind sort of in a way. I mean my partner is obviously lovely and she's gonna be a fantastic teacher and she can give me great tips and techniques, but when you compare somebody who's been teaching as long as I have with someone who's got banks of experiences, years of stuff to draw on and they know what works, I'd far rather that and the notes that you take from your observations that I've been doing it in my placement: much, much more tips, much, much more little strategies to use and ways they incorporate, everything they need to know in a lesson . . .

However, this preference for observing experienced teachers may obscure some hidden problems which was acknowledged by student teacher 1 who was not 'impressed' by the quality of experienced teachers she had to observe in her second placement.

Likewise, having more experience in teaching is not always the same as better quality teaching and some experienced teachers may have developed bad teaching habits over the years or were more resistant to change and innovation. For example, student teacher 11 mentioned an experienced teacher who lacked enthusiasm in teaching and had 'jaded' practice. However, this example was not representative of student teachers' conceptions of experienced teachers which tended to be more idealistic (Furlong and Maynard, 1993: 72).

Despite the widespread endorsement of observing experienced teachers, half of these student teachers liked peer observation and some of them mentioned some of its advantages. Some of the advantages of observing peers were assessing oneself against

each other (student teacher 5), being more engaging due to the personal relationship and sympathy with them (student teacher 9), being easier because peers do not normally make lessons look easy to teach and they were easier to identify with because they were 'nervous and not as confident' (student teacher 16).

Student teachers' second round of interviews

Despite having no official peer observations in the second placement, eight student teachers out of nine talked about it and three of them had informal peer observations. Three student teachers talked about the best timing for peer observations; whereas only student teacher 1 preferred to have them later in the course, student teachers 3, 9 and 17 thought that it was more appropriate at the beginning to have the emotional comfort of knowing that other people also made mistakes (student 3) and to learn from their mistakes (student 17). Although four student teachers thought that observing peers was interesting and useful, four of them contended that observing experienced teachers was more helpful. For example, student teacher 1 was critical of the efficacy of peer observation generally in the course:

... like why would I want to watch someone else learn? I'm learning myself. It's more useful for me to focus on my own than to watch someone else. We're paying a lot of money for the course; I don't want to see somebody else learn to teach. I want to learn to teach.

Although learning from other people's mistakes can be considered as a valid learning opportunity, for this student teacher it was considered as an ineffective opportunity for learning. A more typical response was more appreciative of the value of peer observation despite an obvious preference towards observing experienced teachers which was the case, for example, for student teacher 8:

Probably an experienced teacher especially if they're an outstanding teacher though I would like to see a peer teach. It's difficult because I only wanna see them if they are good. I feel that if they are not good I'm not gonna learn much from it ... I think it's helpful to see either as long as they're good or maybe not even consistently good but

they're better at something like better in an area that you need to develop, that you need to work on . . .

Unlike the student teachers who wanted to observe only outstanding, experienced teachers, the criteria for observing an experienced teacher or peer in this citation drifted gradually from being very high, observing an outstanding teacher, to being more lenient and realistic, observing a teacher who was better at something than the observer.

School mentors and university tutors' interviews

Surprisingly, although all the interview questions explicitly asked about observing experienced teachers and peers, only two mentors talked about observing peers specifically. Both mentors described observing peers as being successful or potentially successful but mentor 5 objected to doing it in the second placement, which was not an official part of the course:

I like the Collaborative Paired Placement we have; the University did it for the first time this year in the autumn term and it seems to work really, really well in this school. I know some places felt it didn't work as well, but were we looking at all pairs, were really good pairings. I think it was really successful and that hadn't been something that we had done before, so having two trainees working together in placement one I think it's good; in placement two, they need to go solo, so I don't think it's such a good idea then . . .

This indicates that the quality of the newly-introduced peer observation was not always good in all schools.

In contrast, five university tutors out of seven talked about observing peers and listed some of its advantages such as enhancing reflection (tutor 4), facilitating the 'transition from pupil to teacher' (tutor 1) and helping each other especially if they are struggling:

. . . They often go to see somebody who they value as a colleague perhaps because they're struggling and they recognise that they're struggling and I think they learn more in those situations than when it's something required to do (tutor 6).

In this case, peer observation was practised for remedial, diagnostic purposes rather than for pre-emptive, proactive learning to teach objectives. This also highlights the

importance of making peer observations voluntary rather than forcing student teachers to do them, which is similar to Richards' contention that observations need to be voluntary to enable the observer to choose who to cooperate with (Richards, 1998: 147-148).

A good example of university tutors' endorsement of peer observation is manifested by university tutor 7 who talked very positively about observing peers and described it as having the same value as observing experienced teachers:

. . . actually it was important for them to see people who were going through the same process at the same time that they were going through that process because trainee teachers do not do slick presentations in class; they're quite nervous, they false start, it's a bit clunky for want of a better word and actually if you're another trainee and watching that, that's where you can see where the joints are, that's where you can see how transitions haven't worked quite so well. I can say an experienced teacher will just make it look very easy, very natural as though they put no effort into it at all, so if you're watching an experienced teacher, you can miss that transition because it looks seamless . . . so I think observing your fellow trainees is equally if not more important than watching an experienced teacher professional

This view is consistent with Hagger et al's assertion that student teachers find experienced teachers' classes deceptively simple due to their lack of teaching experience and their previous experience of observation as pupils (1993: 40). Many scholars contend that peer observation instigates reflection (see Cosh, 1999: 25; Peel, 2005: 489; Sivan and Chan, 2009: 253). Since engaging in 'critical thinking' can be laborious, help from peers can be essential (Peel, 2005: 498). The other can provide a 'mirror onto our actions from an unfamiliar psychological vantage point' (Brookfield in *ibid.*) and also can 'help us to interpret and to question our ideas and actions' (Peel, 2005: 498). However, although the majority of questionnaire respondents agreed that observing peers was helpful, more student teachers did not agree that observing peers is equally if not more important than observing experienced teachers.

In summary, many mentors and tutors showed more support and appreciation for peer observation than student teachers and all participants mentioned several advantages

of observing one's peers. Therefore, since most of the participants welcomed but did not necessarily prefer observing one's peer to observing experienced teachers and since some of its advantages cannot be attained by observing an experienced teacher, this practice can provide an effective way of observing for some student teachers. However, observing one's peer may be better perceived if it is encouraged rather than forced on student teachers as a requirement in the course.

5.11 High agreement among the participants' perceptions

A quantitative, tabular approach was adopted to classify the degree of agreement among the three groups' perceptions of effective observation practices without using a software package. It involved placing observation techniques in rows and the participant groups as well as a description of the degree of agreement among themselves in columns (see table 32). In the first column, the number of tutors and mentors who agreed with an idea was mentioned. In the second one, the percentage of student teachers in the questionnaire and the number of those who agreed among them with a suggestion across the two interviews were also cited. The last column contained a textual description of the numbers i.e. close, very close agreement or not applicable. This resulted in classifying observation techniques with very similar agreement by the three groups in the same categories or layers, which were seven in number. The first three layers of agreement among participant groups included a range from a very large number to nearly half of participants who agreed with an observation technique. The last four layers included fewer numbers ranging from slightly small to very small of participant groups who agreed with an observation technique.

The first layer of preference, which included almost all participants, was observing other subjects only. The second layer of preference included several practices which were endorsed by a large number of the participants. These included:

- having a focus in observation
- preferring structured observation particularly the opportunity to use structured observation schedules
- playing an active role interacting with pupils in observations
- observing peers which they liked but they preferred observing experienced teachers in comparison
- adapting modelled teaching techniques rather than imitating them directly.

In addition, the third layer of preference subsumed the effective observation practices perceived by nearly half of the participants, which were:

- having a post-lesson discussion
- being reflective which was a goal in the beginning and later in the second placement was put into practice
- the desire to do specific training for observation
- focusing on pupils during observations rather than on teachers
- using technology

Only two perceived effective observation practices were identified in the fourth layer, whose participants were relatively small, which were:

- doing Observation tasks more often and
- tracking pupils more often

Similarly, in the fifth layer a small number of participants suggested only two observation practices:

- observing a range of good teachers
- having some teaching experience before observing to engage in more focused observations

Only a very small number of the participants proposed observation practices in the six layer:

- having a pre-lesson discussion
- linking theory to practice on the basis of observations and
- formalising the process of observation by making it a mandatory component in the course rather than leave it for student teachers to seek them informally from busy teachers

The last layer of perceived effective observation practices, which missed at least one group among the participants, involved:

- writing notes during observations
- doing more observation and the best timing particularly at the beginning of each term
- blogs and journals
- being independent, proactive and professional and
- having the lesson plan before the observation

It should be noted that perceived effective observation practices in the lowest layers, particularly six and seven, tended to be volunteered responses rather than issues raised in the questionnaire or the original interview schedule. An exception to this is the third layer which included topics not asked about in the original interview schedule which were: post-lesson discussions, being reflective, focusing on pupils and using technology to observe. Although this signifies their importance, practices like engaging in reflective practice and post lesson discussions were common goals and recommended practices in the course according to its official handbook.

5.12 Changes to observation techniques

5.12.1 Past changes in observation

Student teachers' first round of interviews

All student teachers in the first round of interviews, which covered the period from the very beginning of their first placement to the beginning of their second placement in February, experienced some kind of change to their observation routines although some changes were more drastic than others. Despite the difference in such changes, most of the changes pertained to their focuses and to a lesser degree to their note-making routines. Concerning the changes in terms of focus, they were classified into two groups, becoming more focused and changing the focus. That is, whereas eight student teachers believed that their observations became more focused, seven student teachers changed their focuses. This indicates that the sub-theme of focus in student teachers' change in observation by the beginning of their second placement encompassed the majority of student teachers, 14 out of 18. Student teacher 8 explained how her observations changed by becoming more specific:

Yeah, I am a lot more specific now when I observe; I know what I am looking for whereas before I thought I knew what I was looking for but I wasn't, I didn't and it was more general; it was like, 'has a nice manner with the class!' Or things like that, but now I'm like, 'Oh, she's trying to have the class thinking deeply about something; she's using open questions. She's asking why, why, why. She's trying to get the classroom to act.' Things like that. It's a lot more focused now.

Although this student teacher did not explain why such a change had happened, other student teachers such as student teacher 2 and student teacher 13 attributed such a change to their burgeoning teaching experience. Another interesting note about student teacher 8's contention is that her initial perception that she thought she knew what she was looking for was misleading. Although this draws attention to the degree of validity and reliability of the perceptions of participants in this study, several measures have been taken to counter that (see sections 4.6 and 4.7).

Regarding student teachers' change of focus, out of the seven who changed theirs, five student teachers have shifted their focuses from the teachers to pupils and their learning (see section 5.3.3). Other less common changes in terms of focus are looking at teaching, as opposed to managing behaviour (student teacher 5), and observing with the focus of making use of certain techniques according to student teacher 4 as opposed to focusing on understanding the learning process:

Yeah, it's more and more now I go into it with a greater sense of, what can I get from this, so I know what I'm looking for, I know what I need to; I feel more a sense of whereas before I didn't know that I would be able to translate what I see into what I can do when I'm teaching. Now, I know that I can do that because I did it the first time round. I'd see my other lessons I've observed; I then started taking on those things and incorporating them into my practice, so this second time round when I observe, it's with a sense of eagerness to find something I'm watching it, thinking, 'right, give me something that I can use; what are you doing that's useful to me? Oh, great that's something I can take, I can incorporate that.' So it's with a greater sense of being able to use it, use what I see whereas before it was more trying to understand learning how learning how they do it trying to kind of grapple with the mystery . . .

This quotation compares her early observations, in placement 1, with her observations in the second placement until February. Her assuming the responsibility of teaching has transformed the way she observed and made her observations more pragmatic and practical and less about theory, which she was supposedly exposed to during the course. Thus, the course had been successful in making the observations of this student teacher and others more tangible and effective through some practices like teaching experience (see section 5.7.2).

Another change in student teachers' observation is their realisation of the importance of writing notes and their writing of more detailed notes, which was the case for four student teachers (see section 5.3.10). Other changes which occurred to a fewer number of student teachers were becoming less nervous and more confident and wanting to teach rather than to observe (student teacher 1) and more interaction with pupils and multitasking (student teacher 9).

In summary, the changes which occurred to student teachers in the first round of interviews were mostly other sub-themes identified throughout the questions of the interviews rather new ones. This is a little understandable given that this was the beginning of the second placement in their ITT course and some more advanced techniques in teaching and observations were still beyond their grasp at that stage.

Student teachers' second round of interviews

All student teachers except one talked about whether they changed their way of doing observation and all of them changed although the changes were different and some of them were more drastic than others. Whereas student teacher 1 became more confident to participate in an observation, the observations of student teachers 6 and 17 became more focused. However, the observations of student teacher 13 became less structured but he deemed focusing on pupils equally important to focusing on teachers and focused more on pupils compared to his first placement. Additionally, student teacher 8 became more selective in writing down notes and concentrated on what is important for her:

The first placement when I was observing, I thought of writing down everything; I did become more selective of what I write down in the second placement. I think I sort of assessed myself; I knew where my strengths were, so I'd find it more helpful to write down things that I wasn't so good at yet or wasn't so confident in, so I could sort of see how they did it and that became more important than everything that I did . . . Definitely was more helpful; I felt like I wouldn't write something down for the sake of it; I would write something down to help myself remember the way that they've done that and that and I would then look back at some observation notes and try and experiment myself and maybe adapt what they've done

Being more selective in writing down notes in observation and the other changes mentioned by other student teachers are not only related to their own experience of observation in the first placement but also with having more teaching experience since these interviews took place toward the end of their second placement.

In summary, becoming more focused and selective in writing notes during observations, focusing on pupils and observation with the intention of transferring some of the observed techniques into one's own teaching were the most commonly cited changes by student teachers in both rounds of interviews. Also, such changes were attempts, irrespective of how successful they were, to search for effective practices in observing other teachers and ultimately to improve their own teaching.

5.12.2 Future plans for change in observation and observer satisfaction

Student teachers' first round of interviews

All student teachers in the first round talked about whether they were satisfied with the way they observed or whether they wanted to change it except two. Whereas five student teachers expressed their satisfaction with the way they observed, the majority of student teachers, 11, either already had plans to change or were generally open to it, even though some of them were satisfied with their observations. Some of the suggested changes were having more discussions with class teachers either before or after the observation (student teacher 3), observing Ofsted-outstanding teachers in areas one is weak at (student teacher 4), devising one's own observation schedule (student teacher 6), becoming more active and writing plenty of notes to make observation less boring (student teacher 11), observing as a friend rather than a policewoman (student teacher 16) and developing a 'shorthand for brevity' when making notes (student teacher 17). Although there is no obvious pattern in the kind of changes they wanted to implement, the fact that the majority of student teachers were open to change rather than being adamant to it is good especially at this stage in their training.

Student teachers' second round of interviews

All student teachers in the second round talked about their plans whether to change their way of doing observations or not. A majority, six out of nine, expressed

their content about their observations and their lack of plans to change whereas 3 student teachers wanted to change. Student teacher 1 wanted to do more focused observations and to have the choice of who to observe. Student teacher 12 wanted to make her observations by having her own pro forma with specific things to look for, which is a 'watered down version' of the university checklist but not 'judgemental'

It's not tick boxes; you've done or you've not done that. Just like boxes to make notes and around similar points. It's something to kind of remind you or to trigger, how are they doing this? How are they doing that? Rather than just a blank sheet of paper where you might not spring to mind if you've not thought what you're supposed to be looking for.

In summary, there seems to be a good level of satisfaction among student teachers about the way they observed, which explains their lack of plans to change particularly in the second round. However, the most frequent plans related to having more discussions with observed class teachers, which was probably not very feasible during the course, and developing one's own personalised observation schedule.

5.13 Conclusion

In summary, concerning the main research question, the research instruments identified many potentially effective observation techniques perceived by student teachers, school mentors and university tutors. Although these suggested techniques need to be verified and tested in other comparable contexts, the intention of this study was to improve future student teachers' observations, and by extension learning to teach, by familiarising them with these observation techniques and training them to implement them formally and informally. Some of most popular strategies were: observing other subjects, using structured observation schedules, having a focus during observation, dialogue with the observed teacher and being reflective. Some less popular recommended observation techniques included: writing notes, blogs and journals, being independent, proactive and professional and having the lesson plan beforehand.

However, being endorsed by fewer participants does not necessarily correlate with effectiveness since the more popular strategies tended to be the ones in the interview schedules and the less popular ones tended to emerge from the participants themselves. Although the participants seemed to agree regarding most of them, there were a few ideas where there was a difference in opinions. Some of the ideas volunteered by mentors or tutors like observing part of the lesson and observing at the beginning of the school terms were not suggested by both groups. These differences in perceptions need to be investigated and addressed if the current approach to observation in ITT is to be improved. Many of the sub-themes in this study are interrelated which can be exemplified by the relationship between having some teaching experience and being able to analyse more reflectively and the relationship between informal observation and the need to be proactive. Another important consideration is the degree of feasibility of some important suggestions such as observing at the very beginning of the school year, using expensive technology and formally including frequent observation tasks which are purely administrative and logistical decisions.

Findings pertaining to the secondary research questions indicated a high level of agreement in perceptions among all three stakeholder groups, a favourable perception of peer observation with slight preference for observing experienced teachers and evidence for changes in student teachers' observation strategies due to their increasing teaching experience.

6. Conclusion

6.1 Introduction

This exploratory, mixed-methods study set out to investigate perceptions of effective observation practices for student teachers in a secondary ITT course. It not only focuses on perceptions regarding observations of experienced teachers but also peers, which was introduced in the course to evaluate its efficacy. The degree of agreement among the three participant groups and changes in student teachers' perceptions are other aims of this study. This thesis focuses on perceptions because they are important in guiding one's own practice of learning to teach (Le Cornu and Collins, 2004: 30 and Twiselton 2007: 500) and even at the inception of their careers student teachers are equipped with a wide range of ideas acquired from multiple sources, which 'will determine their priorities and influence what they consider they will need to learn' (Hagger *et al.*, 1993: 88).). Not only do student teachers' 'pre-program beliefs' need to be made manifest to bring about changes in actions (Brown and McNamara, 2005: 60), but also teacher education courses 'must build off of candidates' incoming ideas about teaching the subject to students' (Monte-Sano and Cochran, 2009: 131). To lessen the possibility of promoting erroneous, flawed perceptions, several measures were taken to enhance validity and reliability, particularly methodological triangulation, triangulation of views from different research groups and peer debriefing. In short, the main question and sub questions are:

1. What are student teachers', university tutors' and school mentors' perceptions of effective practices in observing experienced teachers and peers?
 - a. Which type of observation do participants prefer (observing experienced teachers or peers)?

- b. What is the degree of agreement among participants regarding these perceptions? And
- c. Do student teachers' perceptions change throughout the course and do they have plans for change?

In this chapter, empirical findings of the study will be synthesised before discussing its theoretical and policy implications. Limitations of the study and suggestions for further research will be presented.

6.2 Empirical findings

The significance and contribution of this study to knowledge in the field can be manifested in that:

1. It explored the effectiveness of many practised and suggested observation techniques and identified and suggested many recommendations for effective ones for future secondary ITT courses from the perspectives of three key stakeholder groups utilising a variety of methods and validity and reliability procedures
2. It investigated the innovation of peer observation in the course and evaluated it in comparison to a more established one based on the perceptions of key participants in the course
3. Despite the fundamental role of observing other teachers in learning to teach in many ITT courses across the globe, this study revealed a lack of research on effectiveness of observation practices in ITT secondary courses, particularly in the UK and offered a contribution to bridge it
4. It discovered a disconnect between the view of many student teachers that observation is an inherent ability which does not require training and the

literature, which portrays it as multifaceted skill (Wajnryb 1992: 1; Young and Bender-Slack, 2011: 333-334) that requires training (Tilstone, 1998: 2).

5. It revealed the existence of many terminological differences about observation and leaning to teach in the literature such as EFE (US) and school placements (UK) that convey the same or very similar concepts, which impede the possibility of a uniform, cumulative body of knowledge across different geographical boundaries. Other examples illustrating terminological divergences despite conceptual and lexical overlap are theories, beliefs and perceptions in addition to pre-service teachers, beginning teachers, student teachers and students.
6. It revealed the paramount role of logistics and institutional decision-making of course providers in improving observations, which can be exemplified by garnering sufficient funds for implanting more technology-assisted effective observation practices, observation tasks, specific training sessions for observations, ensuring that both student teachers and school teachers have an adequate amount of time for discussion observations and encouraging this, and formalising other effective observation techniques and the observation course component as a whole.

Whilst the main empirical findings were summarised in Chapter 5, the next sections will synthesise the empirical findings to show how they converge to answer the individual research questions.

6.2.1 Perceptions of student teachers' effective observation practices of experienced teachers and peers

A panoramic view of the nature and relationships among themes and sub-themes in this study indicates several important observations and patterns among the perceived

effective observation practices, which illuminate the findings and help answer the main research question:

- literature-based vs. emerging perceived effective observation practices,
- frequently employed vs. rarely employed effective observation practices,
- frequently employed vs. frequently mentioned perceived effective observation practices and
- the interrelationship among themes and suggested practices

Literature-based vs. emerging perceived effective observation practices

The empirical findings can be classified into two types: those elicited by the questionnaire and original interview questions, which were designed before data collection based on the literature review and those which emerged from the participants' contributions solely. The literature-based themes and sub-themes are slightly more in number than their participant-volunteered counterparts, which reflects that this study has covered a wide range of observation practices despite the relatively small number of the participants. Due to the lack of coherence and consistency in the literature on student teachers' training and learning experiences in the UK (Brown and McNamara, 2011: 34) and elsewhere (Rogers 2011: 249) and the number of potentially available activities which can lead to more beneficial observations, this amalgam of research-based and emerging practices does not claim to be exhaustive. However, despite the infeasibility of covering all possible observation practices, this combination was necessary to include as many potentially effective observation practices as possible.

Frequently vs. rarely employed perceived effective observation practices

Although the number of effective and frequently practised observation techniques is larger than those perceived to be effective but were rarely applied, this still indicates an awareness of the need, on the part of student teachers, to engage in their preferred,

infrequent observation practices, which were otherwise not properly catered for by the course. Dealing with the less frequent perceived effective techniques is challenging as many were bound by logistical restrictions such as lack of time on the part of experienced teachers to engage in pre and post-observation discussions and to provide lesson plans beforehand to the observing student teacher and the high expense of employing technology-assisted observations. However, many of the recommended infrequent observation practices are achievable on the administrative and institutional level such as specific training for observation, formal observation tasks and formalising the process of observation as a whole, particularly in the second placement when student teachers have less time to observe in a way which does not conflict with their teaching responsibilities. Reasons for the infrequency of the potentially effective observation practices should be further investigated and logistical restrictions on the application of such observation practices should be lessened and if possible removed by decision makers and course providers.

Frequently employed vs. frequently mentioned perceived effective observation practices

Another pattern in the findings can be made between practices frequently mentioned and practices frequently employed. Many sub-themes of perceived effective observation practices showed a good degree of consistency regarding this distinction since, for instance, most student teachers who endorsed having a focus in the second interview practised this strategy although many of them found it difficult to do this earlier in the course despite being aware of its importance to their training. However, this consistency in pattern was not the case when student teachers endorsed a practice without indicating how frequently they engaged in it and not all the most mentioned practices were the most employed since although, for example, not many student

teachers talked about writing notes and being reflective in the later part of the course, those who did, indicated that they engaged in these practices frequently. Indeed, being aware of and publicly endorsing a skill such as reflection does not necessarily mean being able or ready to utilise it sufficiently, particularly at the beginning of one's own ITT course. Therefore, reasons for the discrepancy between what is widely-cited as an effective observation practice and what is frequently practised actually need to be identified and addressed.

The interrelationship among sub-themes and suggested practices

An interesting feature of the findings was that many of them were intricately intertwined. For example, the sub-theme of engaging in focused observation was strongly linked with having some teaching experience to be able to know what to look for, which could usually be an aspect of teaching the student teacher needed to improve. The inter-relationship between focused and structured observations is another example of this distinction since student teachers conceptualised both as synonyms initially before an explanation was provided to them to explain the difference. In addition, peer observation was deemed to be more conducive to an active, participant style of observation and writing notes was frequently associated with student teachers' preferences regarding adopting an active, participant style of observation. Reflection and critical analysis in turn were associated with having a post-lesson discussion with the observed teacher. These connections between sub-themes emphasise the multi-faceted, complex nature of the phenomena of both learning to teach (Doyle, 1986: 394-395; Maynard and Furlong, 1993: 69) and observing other teachers (Malderez, 2003: 179) and strengthen the idea that observation is far from an easy, automatic skill (Wajnryb 1992: 1; Young and Bender-Slack, 2011: 333-334) and specific training for it

(Tilstone, 1998: 2) and engaging in perceived effective observation practices could make it more effective for student teachers to learn to teach in ITT.

6.2.2 Student teachers' perceptions of effectiveness of observing experienced teachers in relation to observing peers

In the first secondary research question, despite the advantages of peer observation such as enhancing reflective practice (Anderson et al., 2005: 98; Sivan and Chan, 2009: 253; Peel, 2005: 489), collaboration and collegiality as opposed to isolation (Bourne-Hayes, 2010: 147) and linking theory and practice (Sivan and Chan, 2009: 256-257), student teachers did not perceive observing experienced teachers and observing peers as equal, but the majority of participants deemed both as valid and beneficial for learning to teach. There was a clear tendency on the part of student teachers to favour observing experienced teachers mainly due to their wealth of experience. Interestingly, despite the positive views about peer observation among all groups, most student teachers objected to increasing the amount of this in the course unlike observations of experienced teachers. This is because student teachers deemed observing experienced teachers as more beneficial and because they became increasingly busier the more they advanced throughout the course.

6.2.3 Extent of agreement among participants' perceptions of effective observation practices

Concerning the second sub research question, there was some degree of agreement between the participants' perceptions in this study regarding the great majority of their effective observation practices. This can be evidenced by the contention that not only the great majority of these categories but also the biggest category included practices about which there was a good degree of agreement among participants of the study. In addition, there was no clear, marked disagreement regarding

any of the practices in the categories identified by the participants whether the practice was part of the interview schedules or not. This result indicates a good degree of reliability and credibility of the findings of this study. An important observation to make here is that the differences among participants' perceptions particularly were affected by three main factors: the exploratory nature of the study, the semi-structured nature (See Drever 1995: 8 and Borg, 2006: 189-190) of the main research instrument and the relatively small number of participants. These factors not only allowed the emergence of many infrequently mentioned sub-themes but also they lessened the number of themes and sub-themes shown in this research and the degree of agreement among participants.

6.2.4 Changes in student teachers' views of effective observation techniques throughout the course

Regarding the last secondary research question, by February 2013, all student teachers indicated that they experienced some kind of change to their observation routines and some changes were more significant than others. Despite the difference in such changes, most of the changes pertained to their focuses and to a lesser degree to their note-making routines. The changes which occurred to student teachers in the first round of interviews were mostly other sub-themes identified throughout the questions of the interviews rather than new sub-themes, which reflects the interrelationship among sub-themes in this study. Additionally, the changes which occurred to their observations by the beginning of the second placement were not very advanced observation techniques, which were probably beyond their grasp at that stage.

By May 2013, the changes which occurred to student teachers' observations by were also different from each other and some of them were more significant than others. The changes in observation practices detected in this study between the two rounds of interviews were being able to focus on more than one aspect in the lesson, less emphasis

on apprenticeship which was implied in a desire to acquaint themselves with a variety of different teaching approaches, becoming more reflective and selective in writing notes and moving from endorsing a practice such as reflection and focused observation into practising it. A common thread among all these changes was the role of increased teaching experience which ironically made their observations more effective but limited the time for doing observations, particularly in the second half of the second placement. This issue needs careful consideration and management of logistical challenges inherent in the course and formalising the process of observation and possibly reducing the teaching load slightly on student teachers to observe more.

6.3 Theoretical and policy implications

6.3.1 Theoretical implications

Marked agreement with the literature

There was a high concordance between the themes in the literature and the findings of the study. This can be exemplified by the participants' identification of reflection as a goal for ITT (Berg et al. 2002: 276) and for observation (Lasagabaster and Sierra, 2011: 461), the importance of post-observation discussion (Tomlinson, 1995: 38; Field, 1999: 50), and the importance of linking theory to practice in learning to teach (Young and Bender-Slack, 2011: 325-326). Although there were no questions in the original interview schedule about reflection and discussion, most of the interviewees volunteered these topics and stressed their importance. Another similarity is in the concept that learning happens in stages (Tomlinson, 1995: 44-45; Furlong and Maynard, 1993: 72; Fuller in Lotter, 2004: 29) with variations in terms of individual differences. Despite student teachers' awareness of the importance of having a focus during observations and being instructed to focus as early as the beginning of the course, many of them found it difficult until they obtained some teaching experience.

Nevertheless, there were some instances where there was less conformity to the literature. For example, the endorsement of the apprenticeship mentoring approach, particularly on the part of several participants was somewhat surprising. This is because apprenticeship involves 'shadowing' experienced teachers and mentors and observing them closely to imitate them when they start teaching (Scaife and Scaife, 1996: 74-75) and it implies that existing professional practice is perfect and it results in 'professional stasis' (Brooks and Sikes, 1997: 18). However, mentor 2 pointed out that a wholly reflective approach, which is usually at odds with apprenticeship due to its emphasis on continual, uncertain (Brooks and Sikes, 1997: 23) self-learning, is very risky for children's learning and exam results. Another surprising departure from the literature was participants' lack of reference to the cognitive (Hagger and McIntyre 2006: 56) and emotional (Fuller and Bown in Furlong and Maynard, 1995: 68; Le Cornu and Collins 2004: 32) dimensions and challenges of learning to teach, which were part of the literature review.

Validity of the study's theoretical paradigm

The nature of actual practice is inherently social since what we do happens in a certain 'historical and social context' that endows it with 'structure and meaning' (Wenger, 1998: 47). The social learning theories adopted in this study, legitimate peripheral participation and communities of practice, (Lave and Wenger, 1991: 29-98) were compatible with the themes and sub-themes in this study, conceptually and practically. These concepts indicate that learning occurs by increasing participation in the activities of a community of practice to become full members in it. A community of practice indicates the interactions a group of individuals undertake among themselves and with the world around them 'over time' in their continued 'pursuit of a shared enterprise' (Wenger, 1998: 45). Peripherality signifies being exposed to practice which can be exemplified by attenuated risk and 'cost of error', decreased 'production

pressures' and 'close supervision' and help (Wenger, 1998: 100). New members of a community of practice require sufficient legitimacy to be dealt with as possible members of a community of practice so that their mistakes can turn into learning opportunities rather than reasons for 'dismissal' or 'exclusion' from that community (Wenger, 1998: 101). However, since peripherality and legitimacy involve a relationship between newcomers and old times in a community of practice, there is a possibility for 'generational conflict' (Wenger, 1998: 101).

According to the above description of a community of practice, the interactions between new teachers and experienced ones in their pursuit of the common goal of learning to teach bestows the quality of community of practice on those teachers. Peripherality can be evidenced by the little amount of teaching responsibilities student teachers had to take earlier in the course, which peaked later in the course when student teachers had to teach 75 per cent of a teaching timetable excluding lesson planning, observation and any other activities. Regarding legitimacy, although student teacher 16 expressed a concern for taking risks in teaching another teacher's class rather than following her methods and routines, this does not necessarily indicate that this was the case for all other student teachers. Rather, this indicates the importance of legitimacy, not only in making student teachers feel accepted in their community of practice but also in encouraging them to take risks and innovate rather than simply replicate blindly what they observed.

The most obvious example of LPP is the theme of participant observation. The great majority of interviewees preferred to interact with pupils and to help them and their teachers during their observations, rather than to observe passively at the back. Most student teachers did not adopt a passive approach and some of them had to change their role from observing to team-teaching, which was the case for student teacher 9 in

the second interview (see section 5.3.10). Most student teachers wanted to compare their perceptions of the lessons with those of pupils to verify the degree of effectiveness of teaching, rather than to stay on the margins and be content with what was observable to them.

Another evidence of the importance of LPP and CoP can be found in the informal nature of observation, particularly in the second placement in which student teachers had to request observations since they were not normally offered to them. Therefore, student teachers as newcomers had to negotiate directly with experienced teachers to ensure access into their classes which may not have been successful all the time due to experienced teachers' attitudes to observation, which for some were negatively-associated with Ofsted, being assessed and their being busy. Participants' emphasis on the importance of discussion provides more evidence of their attempts to learn to teach by gradually becoming full members of the community of teachers (Lave and Wenger, 1991:40). By communicating and interacting with experienced teachers as well as post-lesson discussions, student teachers had the opportunity to know the rationales for teaching styles and the little tricks and techniques of the teaching of experts, rather than to be content to draw their own conclusions based on observations alone. This was fostered by requesting and valuing student teachers' opinions about their observations later in the course which can be evidenced by student teacher 12's experience in her second interview (see section 5.7.1).

Additionally, some of the identified advantages for observing other subjects, which was perceived as a highly effective observation strategy by the great majority of all the participants, were breaking the boundaries between subjects and being consistent in teaching with other teachers in the school and attempting to know how and why pupils reacted differently to different teachers. Such a mentality not only lessens student

teacher isolation during their training, but also requires student teachers to be ‘both absorbing and being absorbed in the culture of practice’ which enables them eventually to make the ‘culture of practice theirs’ (Lave and Wenger, 1991:95). Eventually, as student teachers accumulated more teaching and observation experience, many of them became more confident in approaching other teachers and in teaching their own lessons and incidentally became fuller members of their community.

Despite the relatively small scale nature of this study, it represents a fresh perspective on an often neglected aspect in published research; namely, effective student teacher’s observation practices in secondary ITT. Despite the sizable amount and variety of the literature on learning to teach, teacher education and observation, most of the research regarding student teachers’ observations of other teachers as part of their ITT seems to concentrate on observing effective teaching strategies rather than effective observation strategies. The theoretical contribution of this study consists in the contention that if student teachers engage in the most effective perceived observation practices, their learning to teach will benefit.

6.3.2 Policy and practice recommendations

The recommended policy and practice recommendations are based on the participants’ perceptions in accordance with the research questions. Although relying on perceptions only could be seen as a weakness, different measures were taken to increase their validity and representativeness such as triangulating different research methods, triangulating the opinions of different research groups and collecting as much data as possible. The frequently employed, perceived effective techniques identified in this study should be maintained and emphasised in future courses. Since a majority of the infrequent effective observation practices were time-consuming, the challenge is to

prioritise and choose particular infrequent perceived effective observation practices to integrate into future courses and to find suitable mechanisms to apply them.

Training for using different observation forms

The first of the provided recommendations is to make observation forms available formally and a uniform and formal training in how to use these. It was shown that there were no formal observation forms in the official course handbook (see section 5.3.1) and it was the responsibility of school mentors to decide whether to provide their student teachers with such forms or not. However, since the great majority of the research participants denied using such forms in practice and since most of them preferred a structured form of observation to make their observations more focused, some observations forms should be available in the course handbook or in a separate one dedicated for observation with guidelines regarding recommended ways of using them.

Unless mentors show how important and necessary structured observation forms are, student teachers will be less likely to utilise them. To encourage student teachers to utilise such forms, two measures can be taken. A first suggestion is to personalise and individualise such forms by either making student teachers focus on some of the aspects in the form they need to improve and having a section for their additional observations or by designing forms for student teachers inspired by their own needs. Second, more teacher-friendly measures should be taken to make experienced teachers feel less nervous when such forms are used. This could be done through training student teachers to use observation forms graciously, particularly when there is a discussion at the end of the observation and by formalising and regularising their use by student teachers. Since there are some challenges such as experienced teachers' fear of being judged by student teachers, there is a need for trust between the student teacher observer and the observed

experienced teacher and a need to train student teachers to become sensitive and congenial in their feedback discussions, particularly with more experienced teachers. Therefore, efforts need to be made by decision makers to train student teachers to use these forms kindly and in an uncritical manner and to normalise using them so that school teachers become accustomed to student teachers' use of them.

Formalising observation in the second placement

Formalising observation in the second placement is one step toward ensuring that student teachers maintain it and reap more of its benefits later in the course due to their increasing teaching experience and more crystallised view of what to focus on. This is a logistical or institutional matter which could be facilitated by reducing the teaching load on student teachers in the second placement, which becomes 75% excluding planning time, and maintaining the process of observation formally but manageably such as once a week or once a fortnight. Doing too little or no observations in the second placement is a waste of potential for student teachers who are more able to identify their own targets and focuses and who want to improve their practice by observing skilled teachers. This does not necessarily mean that student teachers have to observe certain teachers at certain times. This idea could be combined with voluntary peer observation (Richards, 1998: 147-148).

Tracking pupils more frequently

Tracking pupils was a highly recommended but rarely practised technique in the course since most student teachers did it once throughout the course (see section 5.3.4). One of its potential advantages includes transformations or 'changes in perspectives' student teachers undergo between their undergraduate courses and their post-graduate teacher training ones when they view the subject from their pupils' perspectives in addition to their own in order to combine both perspectives (Stevens et al., 2006: 98).

However, since there was a discrepancy between student teachers' understanding of its role and that of the course leader, this technique should be included and explained in the course general handbook not only to present its advantages, but also to lessen the possibility of discrepancies in understanding it among student teachers, tutors and mentors. The handbook should also suggest some good ways of practising pupil tracking to help student teachers benefit more from it and to make student teachers' adaptations of it more uniform rather than too widely different.

Collaboration between student teachers and experienced teachers

Collaboration between student teachers and experienced teachers should be encouraged not only with teachers whose classes student teachers will take over, but also others. This could take the form of formally requiring such collaboration or encouraging it informally by providing incentives for both groups to work with each other and minimising experienced teachers' concerns, such as reducing their teaching timetables and training student teachers to engage in gracious, professional observations and non-judgemental discussions. Collaboration, rather than isolation, between newcomers and old-timers is one of the fundamental characteristics of CoP and LPP (Wenger, 1998: 45).

Observing other subjects more frequently

Student teachers' observations of other subjects, not only to discover new ideas and techniques and focus on pedagogy but also to share knowledge of pupils to personalise teaching more and make it more differentiated, should be encouraged and increased. This could be done by making observing other subjects a mandatory component in the course and by reducing the teaching load student teachers need to complete, particularly in the second placement. This technique not only trains student teachers to focus on pupils and their needs more but also can prove more effective in the

second placement when student teachers have more teaching experience and targets to focus on while observing.

Risk-taking, creativity and innovation

An effective learning style should be one in which the student teacher can recognise who to model, what to model and criteria for modelling, while retaining their own teaching personality for longer term success. Therefore, student teachers should be encouraged to take risks to develop their own distinctive teaching personas not only verbally, but also by minimising the repercussions of making mistakes in class as part of their qualification requirements. To do that, student teachers need confidence, which is important for improving their pupils learning and participation (Le Cornu and Collins, 2004: 30). One way of boosting their confidence is by training them to ‘build positive relationships’ when networking with their peers, school-based teachers tutors and mentors, which can act as ‘informal support’ (Fox and Wilson, 2015: 93-94). They also need sufficient legitimacy to take risks and innovate which is consistent with Wenger’s concepts of legitimacy and peripherality (Wenger, 1998: 100-101). Student teachers also need to be familiarised with the kinds of risks they can afford to make to qualify, to take safer, calculated risks. Also, creativity and innovation, within limits, should be encouraged as long as procedures for applying them are discussed with experienced teachers and mentors and sufficient support and encouragement by the course providers are guaranteed. Indeed, Risk-taking is more likely to encourage student teachers to become more reflective than a fully apprenticeship approach to learning to teach.

Participant observation

In accordance to the view that learning to teach is ‘a process of transformation of participation’ (Connell, 2010: 87) in ‘socially produced, culturally constructed activities’, which influence student teachers’ ‘identities’ and their conceptions of how to

be a learner and a teacher (Connell, 2010: 91), student teachers need to be encouraged to participate in observations. This can be facilitated via maintaining and increasing the number of peer observations in the course due to the sense of collegiality and collaboration they normally have and to the lessened degree of asymmetrical power relationships compared to observations of experienced teachers. Thus, student teachers should be given more encouragement to participate in observations and to be active, by informing and showing them its benefits, particularly taking pupils' learning and needs into account and triangulating pupils' perspectives with theirs to achieve a more nuanced, realistic view of learning and teaching. Student teachers should be prepared for the different ways in which different teachers may handle their presence in lessons and help them to decide how to respond, and experienced teachers should encourage student teachers to participate rather than restrict them to the role of writing down notes. School mentors, teachers and university tutors should encourage student teachers to take an active, voluntary approach to observation, which can be facilitated by retrospective reporting (Berg et al. 2002: 277).

Observing a range of good teachers

Although the course handbook recommends that student teachers observe good and outstanding teachers, few student teachers were unsatisfied with their experiences of observing experienced teachers, which was based on availability rather than quality. Therefore, the mentors can help student teachers in selecting the right teachers to observe (Field, 1999: 56). Since they should be familiar with student teachers' needs and experienced teachers' strengths and are able to facilitate the possibility of effective observations, particularly since student teachers become busier and less inclined to observe as the course progresses. Observing a range of different teachers not only should be facilitated and encouraged but also its benefits should be explained at the

beginning of the course rather than wait until student teachers recognise its value much later in the course.

Peer observation

Since observing and peers have its own distinct advantages such as enhancing reflective practice (Anderson et al., 2005: 98; Sivan and Chan, 2009: 253; Peel, 2005: 489), collaboration and collegiality (Bourne-Hayes, 2010: 147) and linking theory and practice (Sivan and Chan, 2009: 256-257), combining it with observing experienced teachers, which in this study had been the case, seemed to be a widely-accepted innovation. However, it is recommended that peer observation should remain formally in the first placement, since in this study the majority of student teachers did not want to do this in the second placement. It should also be conducted on a voluntary basis (Richards, 1993: 147-148) and student teachers should have the opportunity to choose their partners rather than be paired with peers whom they do not like.

Having the lesson plan in advance and pre and post-observation discussions

Student teachers should have the lesson plan in advance to know what to focus on, which was an extremely rare practice in this course. Pre-lesson discussions can provide another way of focusing one's observation, particularly if coupled with the lesson plan. This could be done through requiring experienced teachers formally to provide lesson plans to student teachers who observe them and briefly telling them the focus of their lesson in advance. Post-lesson discussions with the class teacher or observing mentors help student teachers to enrich and verify their understandings of observed lessons and to take something from them rather than to rely on forgettable impressions.

Linking theory to practice

Linking theory to practice can be assisted if it is demonstrated by an experienced teacher or mentor who could observe with a specific focus with other student teachers and then discuss the lesson with the student teacher afterwards and demonstrate with evidence how certain theoretical teaching concepts were put into practice in the observed lesson. This practice can be achieved through reflection on the development of the beliefs of student teachers (Korthagen & Kessels, 1999 in Hancock and Gallard: 2004: 282). Another possibility of establishing this link is through observation tasks where student teachers have to make those links and to report and discuss them with their mentors, which was very rare in this course.

Specific training for observation

Due to the fact that observation encompasses other sub-skills such as ‘perceiving, interpreting, assessing, and reacting’ that happen simultaneously (Malderez, 2003: 179) and that it is not an in-born, inherent skill, it requires not only sufficient support from teacher educators (Young and Bender-Slack, 2011: 333-334) but also training (Tilstone, 1998: 2). Since there was no specific training for observation according to the great majority of interviewees, this needs to become part of the course. Rather than training student teachers in general methods of learning to teach, specific examples of training in observation should be a formal regular part of the course, particularly in the first placement. This can take the form of specific observation tasks to collect certain data, observing in groups and discussing the observations afterwards, being trained to use different observation forms and seminars and workshops on effective observation practices and ineffective ones to avoid the latter type.

Observation tasks

Many are the advantages of observation tasks such as concentrating on specific aspects, collecting facts rather than making overall judgements (Wajnryb, 1992:8), avoiding superficial student teacher feedback (Copland, 2008: 15), encouraging reflection (Richards, 1998: 144) and extracting theories and hypotheses from observed lessons to try them in their own lessons (Kolb in Swan 1993: 243). The benefits of observation tasks exemplified in Chapter 5 seem immense since they required student teachers to have a single focus and to discuss their findings in groups (see sections 5.3.2 and 5.5.1), which can help them become more reflective (Pattison et al. 2012: 136). Although their infrequency (see section 5.6.2) could be understandable due to the busy timetables of student teachers, having one or two such tasks later in the course might be manageable, particularly since student teachers would have had more teaching experience to relate to by then. If observation tasks are as useful as some mentors and tutors indicated, having a small number of them is worth investigating. Due to the general support for this idea on the part of mentors and tutors and student teachers, including it in the training programme seems important as long as time and logistics are taken into account.

Observation handbook

The course handbook does not seem to offer sufficient advice regarding student teachers' observations of experienced teachers and peers as the few guidelines available for observing other teachers are shallow and generic in scope. This does not mean that advice and guidance were not provided by tutors and mentors during the course since according to the handbook 'student teachers can expect that advice given will be open, thorough and supportive' from the university and the schools (*Secondary PGCE Course Handbook*, 2012: 11), which might have varied from place to place. However, the

handbook portrays efficiently its expectations about learning to teach, course requirements and objectives and the goals student teachers needed to achieve. Therefore, a specially designed handbook for observation should be provided to student teachers prior to the course which includes clear, detailed guidelines about what to look for, the need for a focus, what should be avoided during observations, how and what to discuss with the observed teacher and sample observation forms to use. Having a specific booklet for observation is likely to enhance the value of observation for student teachers to make them take it more seriously and to practise it more professionally.

Uniformity of expectations and training

Since different expectations in different school placements are unhelpful for training student teachers (Mutton et al, 2010: 80) and since there was variability in terms of what was available for student teachers in different schools, particularly in relation to observation, there is a need to make the process of observation as uniform as possible. This can be achieved by adopting a formal uniform guide for observation in all schools and following uniform guidelines and observation forms in all the partnership schools.

6.4 Limitations

This study, which investigated a very important stage in learning to teach within a distinguished UK university partnership, offered an extensive array of recommendations for effective observation practices for student teachers. However, as a direct consequence of logistical constraints and methodology, the researcher encountered two main limitations pertaining to the number of the participants, and data collection methods.

First, although about two thirds of student teachers answered the questionnaire, the number of interviewees, particularly university tutors and school mentors was much smaller, seven tutors and six mentors. In addition, not all the mentors were current ones, but they were asked to express their opinions from their mentors' point of view, which was recent. These mentors were also still engaged with the researched ITT and had a role to play in it, normally a university-based role. However, this caused some degree of imbalance in the ratio of the mentor/tutor perspectives in favour of the tutors. Regarding student teachers' interviews, although this study does not claim to be longitudinal, only half the student teachers who were interviewed in February were interviewed in May. The limited amount of the data, particularly from university tutors and school mentors, contributed to omitting the less frequent themes from the analysis irrespective of their importance, such as the themes of establishing a good relationship with school teacher and the need to become continuous learners. However, while 89 questionnaire responses out of 136 and 40 interviews do not constitute a large-scale study, the amount of data generated, particularly from interviews, and their length and depth was sufficient to exhibit a wide variety of themes and patterns for the analysis and discussion.

A second shortcoming in the data was the lack of a direct way of collecting data, such as observation. Although permission was sought in an earlier version of the methodology to observe student teachers, this approach was not successful due to potential participants' lack of consent. This resulted in having only two indirect, self-reported instruments of data collection and analysing course documentation. To address these shortcomings different ways of collecting data were employed which included a questionnaire, interviews and document analysis of the general handbook of the course. Data were collected from all possible, relevant and consenting individuals for this study, which involved three different groups (university tutors, school mentors and student teachers) and two rounds of interviews for some of the student teachers during the

course. Additionally, not only data from the different methods were triangulated, but also from different groups. In chapter 5, the questionnaire and interviews, and where applicable document analysis and the literature, were compared and contrasted and also student teachers' perceptions were compared with their university tutors' and school mentors'.

6.5 Further research

Several further research questions could be based on the findings of this study. First, one direction for future research is identifying effective observation practices in other ITT courses and comparing them with this study to discover if they are similar. Effective observation practices in this study could also be used as a basis for a questionnaire, interviews and even observations to find out whether their participants agree with the findings of this study. This could prove more fruitful if multi-site, large scale studies were conducted in a longitudinal way to discover patterns in learning to teach and observation at different stages in their courses.

Not all recommended observation strategies and techniques were recurrent components in the course; therefore, it is worth investigating the reasons behind this and how to make rare and non-practised potentially effective observation techniques more frequent. This is because it is argued in this study that if student teachers engage in effective observation strategies and techniques, not only their observation but also their learning to teach skills will improve.

6.6 Conclusion

This study is a step in bridging the gap of lack of exploratory studies in relation to identifying perceived effective observation practices and it has addressed four important research issues in an UK ITT course. Many potentially effective observation practices

and techniques were identified for student teachers by different groups over the duration of the course. It has also addressed the participants' perceptions of a new innovation in that course, a form of peer observation, which was welcomed in the first term but not preferred in relation to observing experienced teachers. Not only was a good degree of concordance among the study participants found but also many policy recommendations for potentially effective observation practices were provided. This research also found some evidence of how student teachers' observation changed and became more effective, particularly in relation to the role of increasing teaching experience in engaging in more focused forms of observations.

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Appendices:

Appendix 1: Roles of school mentors and university tutors in the PGCE

The role of the Professional Mentor is to:

- Ensure coherence of Subject Mentoring across the school.
- Ensure opportunities for sharing excellent mentor practice across the school.
- Liaise with the Partnership Office concerning offers of trainee placements.
- Attend the Partnership Conference training in the summer term before the training year begins.
- Select appropriately qualified and experienced staff to act as Subject Mentors.
- Manage, monitor and moderate the work of the team of Subject Mentors including their judgements.
- Distribute appropriate documentation to Subject Mentors (lesson observation forms, weekly mentor meeting logs, profiles etc).
- Arrange trainees' general introduction to the school and a programme of meetings and training sessions to target whole school issues (Please refer to [Professional Programme Record](#))
- Arrange other training entitlements, including ICT programmes and pastoral and SEN placements for trainees.
- Maintain regular contact with trainees and Subject Mentors throughout the placement.
- Observe jointly with each Subject Mentor, observe and where appropriate, contribute to the feedback process at least once during the placement. Monitor and ensure the quality of the feedback process.
- Facilitate trainees' progress with completion tasks and Masters assignments where appropriate.
- Support Subject Mentors in their training and assessment roles, including moderating assessment judgements across departments by observing trainees with Subject Mentors and, for example, meeting with the team of mentors to communicate expectations on placement.
- Monitor Subject Mentors' work, for the benefit of trainees and pupils – for example, ensuring that lesson observations, learning conversations and weekly mentor meetings are taking place.
- Liaise with the University Link Tutor including undertaking a joint observation and feedback to moderate judgements.
- Manage and monitor the assessment of trainees and ensure that the relevant assessment profiles and PPR forms are completed appropriately and on time.
- Liaise with trainees and Subject Mentors to ensure completion of CEDPs.
- Where necessary, train Subject Mentors who, in exceptional circumstances, have been unable to attend training.

The role of the Subject Mentor is to:

- Be aware of what constitutes satisfactory, good and outstanding teaching and learning and be able to communicate this to trainees.

- Be aware of what constitutes excellent mentoring practice
- Attend Subject Mentor training for the appropriate placement and have opportunity to contribute to the course content, design and approach.
- Liaise with the University Subject Tutor and take part in three way meetings between Tutor, Subject Mentor and trainee. Conduct a joint observation of the trainee on the Tutor's visit to contribute to trainee development and ensure consistency.
- Arrange trainees' induction into the department including a training programme and access to appropriate departmental resources.
- Assess trainees' needs through use of their CV, PDP (for PP1) and the Professional Placement Profile and PDP for PP2, in consultation with Trainee and with Subject Tutor.
- Arrange trainees' teaching timetables ensuring that an appropriate range of opportunities, including Post-16, SEN, ICT, PSHE etc (see page 17), is made available where possible.
- Organise other training and development opportunities for the trainees.
- Brief other members of the department who will share responsibility for training (including the use of learning conversations - Form C)
- Conduct a timetabled weekly Mentor and trainee meeting with the trainee of approximately one hour in length where targets are set and progress discussed. This time could also include the weekly learning conversation if appropriate.
- Arrange a course of observation of trainees' teaching; this should include a full lesson observation with written and oral feedback at least once a week.
- Request that other members of the department engage in informal observations that could identify positive features and a target for development.
- Monitor and assist in developing trainees' planning, documentation and record keeping.
- Offer trainees the opportunity to experience reflection in practice from class teacher or subject mentor perspective.
- Provide effective feedback to trainees on all aspects of professional performance based on the 'Learning Conversation' model.
- Maintain a training record containing all documentation related to the trainees' progress i.e. observation forms, logs of weekly meetings etc.
- Liaise with trainee and Professional Mentor to ensure completion of the CEDP.
- Be familiar with the Teachers' Standards at the level appropriate for trainee Teachers and use them in the assessment of the Trainee and completion of the appropriate profiles.
- Work with each trainee in a constructive, sensitive way, with the aim of developing his/her professional competence and confidence in reflective practice.
- Complete a self-evaluation form at the end of each placement to inform the Partnership's QA process.

The role of the Subject Tutor during Professional Placement:

Visiting Subject Tutor role/expectations: (Key functions: liaison with Subject Mentors in schools, monitoring of subject Trainees' progress on placement)

Subject Tutors visit a number of Trainees from their subject whilst on placement. They are the liaison point between the Subject Mentor and the University.

Professional Placement 1:

- Carry out a liaison visit during serial placement (see Visit Form ST1).
- The Subject Tutor should see both Subject Mentor and Trainee(s) during this visit.
- Carry out an observation visit during block placement (see Visit Form ST2).
- This should be carried out for all Trainees of that subject in the school and should involve joint observation with the Subject Mentor/Class Teacher as well as a discussion of each Trainee's progress followed by a learning conversation.

Professional Placement 2:

- Carry out a liaison visit during serial placement (see Visit Form ST3).
- The Subject Tutor should see both Subject Mentor and Trainee(s) during the visit
- Carry out an observation visit during block placement (see Visit Form ST4). This visit should be complete before the full team review meeting in mid-May. This should be carried out for all Trainees of that subject in the school and should involve joint observation from the Subject Mentor/Class Teacher followed by a learning conversation as well as a discussion of each Trainee's progress.
- If a Trainee is a cause for concern at the early-May review meeting and an early warning letter is sent, the Subject Tutor will liaise with the Subject Mentor in school to draw up an Intervention Plan for the Trainee.
- Carry out a further observation visit followed by a learning conversation (see Visit Form ST5) during block placement with a specific focus tailored to each Trainee's needs.

Appendix: 2 Interview questions (student teachers' first round):

1. Could you please tell me what course you are doing?
2. How many classes have you observed so far and were they taught by experienced teachers or peers? Is this sufficient in your opinion?
3. Which type do you prefer and why?
4. Could you explain to me please how you usually go about observing experienced teachers/peers? What do you do before, during and after an observation? Do you use them again? How useful is this?
5. Have you been trained to observe experienced teachers/ peers? If yes, what approach(es) are you expected to use? And how beneficial do you find it/them?
6. Do you use observation exactly as you were trained to use it or have you adapted recommended approaches to suit yourself?
7. How structured and focused are your classroom observations of experienced teachers/peers? (observation schedules such as checklists)? Which method do you prefer (structured, focused/unstructured, unfocused) and why?
8. Do you have to do specific observation tasks and what do they involve? How useful do you think they are?
9. Who chooses the lessons that you observe and what criteria are used in deciding this? Do you think this is the best way to make these decisions?
10. Do you observe lessons in subjects other than your own? How helpful is this?

11. Are you expected to participate in the activities and interact with pupils or to observe silently in a corner in the classroom? Which do you prefer and why?
12. Are you expected to imitate what you observe or are you expected to devise your own style when in teaching practice? Which do you prefer and why?
13. Has your approach to observation changed in any way since the beginning of the year?
14. Do you plan to change your approach during your second placement?
15. Can you suggest any other approaches or practices which you think would be effective for observing experienced teachers/peers?
16. Is there anything else you would like to add about your experience of observing experienced teachers/peers as part of your training?

Appendix 3 Student teachers' second round questions:

1. When was the last time you observed another teacher's class? And how frequent was your observation of experienced teachers and peers since we last met, (in February)?
2. Since last February, were you expected to change the way you observe other teachers? If yes, was that a good thing in your opinion?
3. Did you engage in any kind of training or useful techniques when observing other teachers (whether imposed by somebody else or invented by you? How useful was this in your opinion?
4. How structured and focused was your observations of other teachers? (observation schedules such as checklists)? Which method was better (structured, focused/unstructured, unfocused) and why?
5. Did you have to do any specific observation tasks and what do they involve? How useful do you think they are?
6. Did you observe lessons in other subjects? How helpful was this?
7. Did interact with pupils or to observe silently in a corner in the classroom? Which is better why?
8. Did you imitate what you observed or did you invent new techniques when you taught? Which was better and why?
9. Has your approach to observation changed in any way since last February (early March)?
10. Would you like to change your approach next year?
11. Can you suggest any approaches or practices which you think would be effective for observing other teachers?
12. Is there anything else you would like to add about your experience of observing other teachers as part of your training?

Appendix 4: Interview questions (university tutors and schools mentors:

1. Could you please tell me a little about your role in this course?
2. How often are student teachers expected to observe practising teachers? Does the amount of observation expected change during the course? Is this about enough in your opinion?
3. Does the course provide training for observation of experienced teachers/peers? If yes, what form does this take? How effective do you think the training is?
4. What does observing experienced teachers/peers usually involve in this course? (before, during and after it) (Are your students required to produce anything such as fieldnotes, blogs, diaries and journals during and after an observation? Do they use them again? How useful is this in your opinion?
5. How structured and focused are classroom observations of experienced teachers/peers? (observation schedules such as checklists)? Which method is better in your opinion (structured, focused/unstructured, unfocused) and why?
6. Do your students have to do specific observation tasks when they observe experienced teachers/peers and what do they involve? How useful do you think they are?
7. In your experience do students generally go about observation in the way they were trained to do it or do they adopt their own approach?

8. Who chooses the lessons student teachers observe and what criteria are used in deciding this? Do you think this is the best way to make these decisions?
9. Do students observe lessons in subjects other than theirs? How helpful is this?
10. Are students expected to participate in the activities and interact with pupils or to observe silently in a corner in the classroom? Which style is better in your opinion and why?
11. Are your students expected to imitate what they observe or to devise their own style when in teaching practice? Which style is better in your opinion and why?
12. Do you expect the approach to observation to change as students learn and progress?
13. Can you suggest any other approaches or practices which you think would be effective for observing experienced teachers/peers?
14. Is there anything else you would like to add about observing experienced teachers/ peers as part of students' teacher training?

Appendix 5: The questionnaire

This questionnaire explores how observing experienced teachers and their peers can help student teachers learn to teach. I am interested in your opinions so there are no right or wrong answers. All responses will be treated anonymously. Thank you for your help.

Your subject specialism:

Please tick the statements that apply to you.

Male ☐ Female: ☐

Age group: 20-29 ☐ 30-39 ☐ 40-49 ☐ 50 and over ☐

1. How frequently have you taken part in the following types of observation during your course so far?

	Frequently	Sometimes	Rarely	Never
a. Observing experienced teachers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Observing another student teacher as part of a collaborative paired placement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. How helpful have you found the following in learning to teach?

	Very helpful	helpful	Not very helpful	Unhelpful	Not applicable
a. training sessions in how to observe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. written guidance on how to observe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. observation schedules, checklists, tasks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Observing experienced teachers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. pre-observation discussion with the experienced teacher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. post-observation discussion with the experienced teacher you have observed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. The opportunity to observe a lesson you helped to plan as part of a collaborative paired placement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. The opportunity for post-lesson discussion of a lesson you helped to plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. To what extent do you agree with the following statements about observing experienced teachers?

	Strongly agree	Agree	Disagree	Strongly disagree	Not applicable
a. I have made changes to the way I teach because of it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. it helps me understand classroom dynamics better	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. it helps me understand individual pupils better	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. It has given me useful teaching strategies to adopt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. it has given me new ideas to consider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. I do not know what to look for when observing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. I do not find classroom observation helpful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. To what extent do you agree with the following statements about observing a peer as part of a collaborative paired placement?

	Strongly agree	Agree	Disagree	Strongly disagree	Not applicable
h. I have made changes to the way I teach because of it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. it helps me understand classroom dynamics better	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. it helps me understand individual pupils better	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. It has given me useful teaching strategies to adopt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. it has given me new ideas to consider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. I do not know what to look for when observing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. I do not find classroom observation helpful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. How often do you do these things when you observe an experienced teacher?

	Frequently	Sometimes	Rarely	Never
a. I observe the class silently from the back of the room	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. I play a part in the lesson and interact with the pupils	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. I do focused observation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. I do unfocused observation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. I make written notes on what I observe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. I fill in an observation schedule/checklist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. During the lesson, I discuss with the teacher how it is going and offer suggestions on how to proceed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. How often do you do these things when you observe a peer as part of a collaborative paired placement?

	Frequently	Sometimes	Rarely	Never
a. I observe the class silently from the back of the room	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. I play a part in the lesson and interact with the pupils	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. I do focused observation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. I do unfocused observation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. I make written notes on what I observe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. I fill in an observation schedule/checklist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. During the lesson, I discuss with the teacher how it is going and offer suggestions on how to proceed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. How best could observation of experienced teachers in your PGCE course be improved?

	Strongly agree	Agree	Disagree	Strongly disagree
a. by making it more frequent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. by using structured observation schedules more frequently	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. by using unstructured schedules more frequently	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. by using live or recorded video of experienced teachers' lessons for discussion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. by having a pre and post-observation discussion with the teachers I observe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. by further training in observation techniques	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. by observing teachers in different subject departments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. by observing teachers who are skilled in an aspect of teaching I need to improve	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. by using observation to set personal development targets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Other (please specify)				

8. How best could observation of peers in your PGCE course be improved?

	Strongly agree	Agree	Disagree	Strongly disagree
a. by making it more frequent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. by using structured observation schedules more frequently	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. by using unstructured schedules more frequently	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. by being able to observe recordings of myself teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. by more opportunities for a pre and post-observation discussion with the student teacher I am paired with	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. by further training in observation techniques	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. by observing peers in different subject departments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. by observing student teachers who are skilled in an aspect of teaching I need to improve	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. by using observation to set personal development targets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Other (please specify)				

Would you like to add any comments?

Finally, I would like to learn more about your experiences of classroom observation. Would you be willing to be interviewed? If so, please provide your name and/or email so that I may contact you and organise a time that is convenient for you. There is a small financial recompense in appreciation of your time.

Name:

email:

Thank you for participating in my research. Your help is much appreciated.

Imad Al-Din Al-Shammat (Warwick Institute of Education, the University of Warwick). I can be contacted at (edrjao@live.warwick.ac.uk)

Appendix 6: A sample analysis table

Mentor 1	
Perceptions of current practice of observing experienced teachers	<ul style="list-style-type: none"> • High frequency of observation at the beginning (two hours a week later) • There is a training session in how to observe but not necessarily for other mentors • No other form of training to observe than that training session • The quality of the actual practice is very dependent on many variables such as the context and the mentor • Unstructured, unfocused observation (which isn't good in her opinion) • No observation tasks • Students normally observe classes they will take over • Student tracking • Student teachers' participation observation or otherwise depends on the class teacher
Perceptions of current practice of observing peers	
Perceptions of effective practices in observing experienced teachers	<ul style="list-style-type: none"> • Discussing with students what they observed in the first week of the course • Student teachers make more use of observation the more teaching experience they have • Although observation forms can be useful, they also have negative sides. • Observation tasks should be built into the course. • Observing other subjects is a very effective strategy • In terms of participation in the lesson, an effective style depends on the purpose of the observation. • Imitation can be useful when student teachers don't have much experience since it can make the transition of the classes smooth. • Attention should be given to the mechanics of observation.
Perceptions of effective practices in observing peers	
Emerging ideas/patterns	<ul style="list-style-type: none"> • School-based vs university based training • Learning by imitation (apprenticeship): student teachers should be exposed to different teaching model as this is how many of them learn. • The informal non-inbuilt nature of observation (she recommends 'putting it structurally, systematically into the course.' • Applying theory into practice • More attention and development should be dedicated to observation needs to be because much learning from it is 'random', 'coincidental' and 'left to chance.'

Appendix 7: Tables

Table 1

Overview of the research design

Participants	Methods	Number of respondents	timing
ITT student teachers	A self-completed questionnaire (pilot)	11	January 2012
ITT University tutors	Semi-structured interviews (pilot)	4	September, November 2011 and November 2012
ITT University tutors	Semi-structured interviews	7	November, December, 2012 and January 2013
ITT student teachers	A Self-completed questionnaire	89	January 2013
ITT student teachers (first round)	Semi-structured interviews	18	February and March 2013
ITT student teachers (second round)	semi-structured interviews	9	May 2013
School mentors	semi-structured interviews	6	June and July 2013

Table 2**helpfulness of observation schedules, checklists**

	Frequency	Percent	Valid Percent	Cumulative Percent
very helpful	6	6.7	6.7	6.7
helpful	42	47.2	47.2	53.9
not very helpful	10	11.2	11.2	65.2
unhelpful	1	1.1	1.1	66.3
not applicable	30	33.7	33.7	100.0
Total	89	100.0	100.0	

Table 3

observing experienced teachers in the PGCE could be improved by observing teachers who are skilled
in an aspect of teaching I need to improve

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly agree	67	75.3	77.0	77.0
Agree	20	22.5	23.0	100.0
Total	87	97.8	100.0	
Missing 999.00	2	2.2		
Total	89	100.0		

Table 4

observing peers in the PGCE could be improved by observing peers who are skilled in an aspect of
teaching I need to improve

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly agree	42	47.2	47.2	47.2
Agree	41	46.1	46.1	93.3
Disagree	6	6.7	6.7	100.0
Total	89	100.0	100.0	

Table 5

observing experienced teachers in the PGCE could be improved by observing teachers in different
subject departments

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly agree	42	47.2	47.2	47.2
agree	41	46.1	46.1	93.3
disagree	6	6.7	6.7	100.0
strongly disagree	0	0	0	
Total	89	100.0	100.0	

Table 6

observing peers in the PGCE could be improved by observing peers in different subject departments

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly agree	29	32.6	32.6	32.6
Agree	50	56.2	56.2	88.8
Valid Disagree	8	9.0	9.0	97.8
strongly disagree	2	2.2	2.2	100.0
Total	89	100.0	100.0	

Table 7

I play a part in the lesson and interact with the pupils when observing an experienced teacher

	Frequency	Percent	Valid Percent	Cumulative Percent
frequently	28	31.5	31.5	31.5
sometimes	53	59.6	59.6	91.0
Valid rarely	7	7.9	7.9	98.9
never	1	1.1	1.1	100.0
Total	89	100.0	100.0	

Table 8**I play a part in the lesson and interact with the pupils when observing a peer**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	frequently	60	67.4	69.8	69.8
	sometimes	24	27.0	27.9	97.7
	rarely	1	1.1	1.2	98.8
	never	1	1.1	1.2	100.0
	Total	86	96.6	100.0	
Missing	999.00	3	3.4		
Total		89	100.0		

Table 9

**observing experienced teachers in the PGCE could be improved by using live or recorded video of
their lessons for discussion**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	16	18.0	18.2	18.2
	Agree	46	51.7	52.3	70.5
	Disagree	23	25.8	26.1	96.6
	strongly disagree	3	3.4	3.4	100.0
	Total	88	98.9	100.0	
Missing	999.00	1	1.1		
Total		89	100.0		

Table 10

helpfulness of pre-observation discussions with the experienced teacher

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very helpful	16	18.0	18.0	18.0
	helpful	30	33.7	33.7	51.7
	not very helpful	5	5.6	5.6	57.3
	unhelpful	1	1.1	1.1	58.4
	not applicable	37	41.6	41.6	100.0
	Total	89	100.0	100.0	

Table 11

helpfulness of post-observation discussions with the experienced teacher you have observed

	Frequency	Percent	Valid Percent	Cumulative Percent
very helpful	33	37.1	37.1	37.1
helpful	43	48.3	48.3	85.4
Valid not very helpful	2	2.2	2.2	87.6
not applicable	11	12.4	12.4	100.0
Total	89	100.0	100.0	

Table 12

helpfulness of post-lesson discussion of a lesson you helped to plan

	Frequency	Percent	Valid Percent	Cumulative Percent
very helpful	36	40.4	40.9	40.9
helpful	33	37.1	37.5	78.4
Valid not very helpful	3	3.4	3.4	81.8
unhelpful	1	1.1	1.1	83.0
not applicable	15	16.9	17.0	100.0
Total	88	98.9	100.0	
Missing 999.00	1	1.1		
Total	89	100.0		

Table 13**helpfulness of training sessions in how to observe**

Frequency	Percent	Valid Percent	Cumulative Percent
2	2.2	2.2	2.2
22	24.7	24.7	27.0
15	16.9	16.9	43.8
4	4.5	4.5	48.3
46	51.7	51.7	100.0
89	100.0	100.0	

Table 14

observing experienced teachers in the PGCE could be improved by further training in observation techniques

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly agree	24	27.0	27.6	27.6
Agree	37	41.6	42.5	70.1
Valid Disagree	22	24.7	25.3	95.4
strongly disagree	4	4.5	4.6	100.0
Total	87	97.8	100.0	
Missing 999.00	2	2.2		
Total	89	100.0		

Table 15

observing peers in the PGCE could be improved by further training in observation techniques

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	21	23.6	23.9	23.9
	Agree	42	47.2	47.7	71.6
	Disagree	21	23.6	23.9	95.5
	strongly disagree	4	4.5	4.5	100.0
	Total	88	98.9	100.0	
Missing	999.00	1	1.1		
Total		89	100.0		

Table 16

helpfulness of observing a lesson you helped to plan as part of a collaborative paired placement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very helpful	20	22.5	22.5	22.5
	helpful	39	43.8	43.8	66.3
	not very helpful	8	9.0	9.0	75.3
	unhelpful	1	1.1	1.1	76.4
	not applicable	21	23.6	23.6	100.0
Total		89	100.0	100.0	

Table 17**helpfulness of observing experienced teachers**

	Frequency	Percent	Valid Percent	Cumulative Percent
very helpful	64	71.9	71.9	71.9
helpful	23	25.8	25.8	97.8
Valid not very helpful	1	1.1	1.1	98.9
unhelpful	1	1.1	1.1	100.0
Total	89	100.0	100.0	

Table 18**observing experienced teachers has made me make changes to the way I teach**

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly agree	34	38.2	38.6	38.6
agree	49	55.1	55.7	94.3
Valid disagree	5	5.6	5.7	100.0
Total	88	98.9	100.0	
Missing 999.00	1	1.1		
Total	89	100.0		

Table 19**observing peers has made me make changes to the way I teach**

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly agree	19	21.3	21.3	21.3
Agree	56	62.9	62.9	84.3
Disagree	9	10.1	10.1	94.4
Valid strongly disagree	2	2.2	2.2	96.6
not applicable	3	3.4	3.4	100.0
Total	89	100.0	100.0	

Table 20**observing experienced teachers helps me understand classroom dynamics better**

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly agree	32	36.0	36.0	36.0
agree	55	61.8	61.8	97.8
Valid disagree	1	1.1	1.1	98.9
not applicable	1	1.1	1.1	100.0
Total	89	100.0	100.0	

Table 21**observing peers helps me understand classroom dynamics better**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	15	16.9	17.0	17.0
Agree	62	69.7	70.5	87.5
Disagree	6	6.7	6.8	94.3
strongly disagree	1	1.1	1.1	95.5
not applicable	4	4.5	4.5	100.0
Total	88	98.9	100.0	
Missing 999.00	1	1.1		
Total	89	100.0		

Table 22**observing experienced teachers helps me understand individual pupils better**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	24	27.0	27.0	27.0
agree	51	57.3	57.3	84.3
disagree	13	14.6	14.6	98.9
not applicable	1	1.1	1.1	100.0
Total	89	100.0	100.0	

Table 23

observing peers helps me understand individual pupils better

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly agree	13	14.6	14.6	14.6
Agree	67	75.3	75.3	89.9
Disagree	3	3.4	3.4	93.3
strongly disagree	2	2.2	2.2	95.5
not applicable	4	4.5	4.5	100.0
Total	89	100.0	100.0	

Table 24

observing experienced teachers has given me useful teaching strategies to adopt

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly agree	44	49.4	50.0	50.0
Agree	42	47.2	47.7	97.7
Disagree	1	1.1	1.1	98.9
strongly disagree	1	1.1	1.1	100.0
Total	88	98.9	100.0	
Missing 999.00	1	1.1		
Total	89	100.0		

Table 25

observing peers has given me useful teaching strategies to adopt

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	13	14.6	14.8	14.8
Agree	48	53.9	54.5	69.3
Disagree	19	21.3	21.6	90.9
strongly disagree	3	3.4	3.4	94.3
not applicable	5	5.6	5.7	100.0
Total	88	98.9	100.0	
Missing 999.00	1	1.1		
Total	89	100.0		

Table 26

observing experienced teachers has given me new ideas to consider

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	39	43.8	43.8	43.8
agree	49	55.1	55.1	98.9
disagree	1	1.1	1.1	100.0
Total	89	100.0	100.0	

Table 27

observing peers has given me new ideas to consider

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly agree	17	19.1	19.3	19.3
agree	60	67.4	68.2	87.5
Valid disagree	7	7.9	8.0	95.5
not applicable	4	4.5	4.5	100.0
Total	88	98.9	100.0	
Missing 999.00	1	1.1		
Total	89	100.0		

Table 28

I do not know what to look for when I observe experienced teachers

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly agree	5	5.6	5.6	5.6
Agree	12	13.5	13.5	19.1
Disagree	53	59.6	59.6	78.7
Valid strongly disagree	18	20.2	20.2	98.9
not applicable	1	1.1	1.1	100.0
Total	89	100.0	100.0	

Table 29**I do not know what to look for when I observe peers**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	3	3.4	3.4	3.4
Agree	9	10.1	10.2	13.6
Disagree	50	56.2	56.8	70.5
strongly disagree	22	24.7	25.0	95.5
not applicable	4	4.5	4.5	100.0
Total	88	98.9	100.0	
Missing 999.00	1	1.1		
Total	89	100.0		

Table 30**observing experienced teachers is not helpful**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	1	1.1	1.1	1.1
Agree	4	4.5	4.5	5.6
Disagree	31	34.8	34.8	40.4
strongly disagree	53	59.6	59.6	100.0
Total	89	100.0	100.0	

Table 31**observing peers is not helpful**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
agree	9	10.1	10.2	10.2
disagree	39	43.8	44.3	54.5
strongly disagree	37	41.6	42.0	96.6
not applicable	3	3.4	3.4	100.0
Total	88	98.9	100.0	
Missing				
999.00	1	1.1		
Total	89	100.0		

Table 32**Degree of agreement among the participant groups**

	Mentors and tutors	Student teachers	Degree of agreement
Observing other subjects 1	12 mentors and tutors for	Q 93.3 and 88.8 for. 1 st 15 for 3 against. 2 nd Almost all of them	Almost exact
Focus 2	4 mentors for 4 tutors for	Q: all for. 1 st 15 for 1 against. 2 nd 6 for.	Close but not exact Q
Structure 2	Five mentors for Two tutors for and four tutors eclectic	Q: four fifths. 1 st I: 9 for and 4 against 2 nd 4 for explicitly	Close but not exact Q

Participation 2	4 mentors for 2 tutors for and 1 against other tutors no preference	Q. 31.5 frequently and 59.6 sometimes. 60 frequently and 24 sometimes 1 st 15 for and 3 against. 2 nd 5 for and 1 against	Not very different
Observing peers 2	2 mentors for peers and 5 tutors for peers	Q peers 22.5 very helpful and 43.8 helpful experienced 71.9 very helpful and 25.8 helpful 1 st 15 preferred experienced and 2 equal. 2 nd 4 for experienced teachers	Not very different
Modelling 2	4 mentors for imitation and 2 for adapting 5 tutors for adapting	1 st 11 for modifying and against direct imitation and 3 for direct imitation. 2 nd all imitated but 5 did not imitate directly	Close
Post-lesson discussion 3	3 mentors and 3 tutors for	Q 37.1v. helpful and 48.3 helpful. 40.4 very helpful and 37.5 helpful. 1 st 11 for. 2 nd 2 for.	Close
Being reflective 3	4 mentors and 4 tutors	1 st 7 for (just a goal). 2 nd 4 for and they practised it.	Close
Training to observe 3	3 mentors for. 4 tutors implicit training 2 for and 1 conditional.	Q. current 27 for and 21 against. Future 70 for 30 against. Peers almost same. 1 st 5 satisfied 6 wanted more. 2 nd 6 no training.	Not very different
Focusing on pupils 3	1 mentor for. 5 tutors for	1 st 7 focused on pupils and 3 focused on teacher. 2 nd 3 for and 3 against	Close but no m or t against
Using technology 3	3 mentors and 3 tutors for	Q 70 percent for	Not very different
Observation tasks 4	4 tutors for. 2 mentors for and 1	1 st 6 for and 1 against. 2 nd 2 for.	Close

	conditional		
Tracking pupils 4	2 mentors and 1 tutor for.	1 st 7 for and 2 against.	Close
Doing more observation and the best timing 5	2 mentors for observation at beginning of terms	1 st 5 increasing observations and 5 just regularising it. 2 nd 6 for increasing its amount	N/A
Observing a range of good teachers 5	2 mentors and 2 tutors	1 st 6 for. 2 nd 2 for	Close
Having some teaching experience 5	2 mentors and 3 tutors	1 st 8 for.	Close
Pre-lesson discussion 6	1 mentor and 1 tutor for	Q 18 percent very helpful and 33.7 helpful. 1 st 3. 2 nd 1	Very close
Linking theory to practice 6	1 mentor and 3 tutors	1 st 3 for. 2 nd 2 for.	Very close
Formality of observation 6	1 tutor and 2 mentors for	2 nd for explicitly	Very close
Writing notes 7		1 st 10 for. 2 nd 5 for	N/A
Blogs and journals 7	3 for and 1 conditional		N/A
Being independent, proactive and professional 7	2 mentors and 2 tutors		N/A
Lesson plan beforehand 7	1 mentor and 1 tutor		N/A

Table 33: Student teachers' genders and subject specialisms

Student teacher	Gender	Subject specialism
1	Female	Drama with English
2	Female	Chemistry
3	Male	English with Drama
4	Female	English and Drama
5	Male	English (school direct)
6	Female	Drama with English
7	Female	Science
8	Female	English and Drama
9	Male	English and Drama
10	Female	English and Drama
11	Female	English with drama
12	Female	Modern Foreign Languages
13	Male	English with Drama
14	Male	Modern Foreign Languages
15	Male	Modern Foreign Languages
16	Female	Modern Foreign Languages
17	Male	Modern Foreign Languages
18	Female	Modern Foreign Languages

Table 34: University tutors genders and subject specialisms

University tutor	Gender	Subject specialism
1	Female	English with Drama (course leader)
2	Male	Science (professional studies tutor)
3	Female	Maths (subject leader)
4	Female	Coordinator for the drama programme
5	Male	Science (course leader)
6	Female	History (coordinator)
7	Female	Modern Foreign languages (Course leader)

Table 35: School mentors' genders and subject specialisms

School mentor	Gender	Subject specialism
1	Female	English Literature (Course leader for Graduate Teacher Programme)
2	Male	(Graduate Teacher Programme)
3	Female	Geography (subject and professional mentor)
4	Female	English and Drama (subject mentor)
5	Female	Modern Foreign Languages (subject and professional mentor)
6	Male	A professional mentor