

Exploring the development of reflective practice with trainee teachers, using video annotation software.

A project submitted to Middlesex University in partial fulfilment of the requirements for the degree of Master of Professional Studies.

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IPL4060

February 2020

Word count: 16, 325 (excluding contents, reference list and appendices)

Key words: education, reflective practice, initial teacher training.

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Abstract

The initial teacher training programme at Middlesex University provided an opportunity to explore the development of reflective practice in initial teacher training, using video annotation software to capture reflective comments. The participants were studying for their postgraduate certificate in secondary education, at Masters level, on the science subject pathway. An action research approach was used to video microteaching and capture reflective commentary of participants after these recorded sessions. The project constituted two action research cycles each of which was followed by a focus group discussion to reflect more fully, evaluate the approach and assessment focus and inform in-project adaptations between cycles.

This paper outlines the key findings relating to development of reflective practice, the use of video to capture this practice and the use of annotation software to capture reflective practice. The findings show positive perceptions of the use of video and the software used, affirming findings from existing literature. Development of reflective practice in this study notably included greater depth over time, a developing use of educational terminology, greater focus on questions within reflective comments, attention to pedagogical subject knowledge and feeding forward to future improvements, completing the reflective cycle. Another key finding was the development of a focus on student activity later in training, from a focus on teacher (participant) activity earlier in the training.

A unique aspect of this study was the inclusion of both self-assessment and peer-assessment opportunities, planned to dovetail with the stage of training for the participants of the study and in response to their feedback between cycles. The second cycle of microteaching and reflection provided rich opportunities for reflection through collaborative peer-peer work, in line with recommendations from much of the existing research in this field. The use of annotation software facilitated the capture of participant's collaborative reflections, giving rich data upon which conclusions are drawn. In addition to the existing body of literature, this study highlighted a focus on the affective aspects of reflective practice, discussion about which is sometimes overlooked in the findings of existing initial teacher training (ITT) literature, despite being an embedded factor in many theoretical models of reflection. The capture of these affective elements of developing reflective practice merits further exploration and is a recommendation of this study.

Acknowledgements

My sincere thanks to Lee Jerome and Victoria Brook, my supervisors for this research project. Lee and Victoria have provided excellent support and advice throughout the planning, researching and writing of this project.

Thanks must also go to my wonderful research participants, the students of 2019, who gave their time freely and without whom this research would not have been possible.

My family and friends have been a huge support for me and special thanks go, in particular, to my husband and daughter.

Except for referenced material, this is my work.

Chapter 1: Introduction

This research aimed to use video annotation software to explore the development of reflective practice in Initial Teacher Training (ITT) at Middlesex University. The recognised benefits of using video as part of teacher training programmes have been highlighted in a range of literature covering video viewing, video annotation, and microteaching and feedback mechanisms. In this growing field the related research has been carried out globally and I have drawn on this literature to justify my proposed research in Chapter 2. Through this project, I intended to add to the published body of work in this field. By exploring the development of reflective practice for my participants, a group of trainee teachers, I intended to highlight any potential benefits of using video annotation software alongside videos of microteaching episodes. I felt that I was well placed to carry out this research as a work-based researcher with extensive experience in the field of ITT.

Skills of reflection are widely considered to be vital in becoming a good teacher. Brookfield discussed this and described a non-reflective approach to teaching as potentially naïve and damaging, tending toward harsh self-criticism. He stated that a critically reflective stance would be preferable, helping teachers to avoid the traps of demoralisation and self-laceration that may otherwise be likely (Brookfield, 1995).

This argument strengthened my evolving view that developing reflection was essential for trainee teachers, as well as experienced teachers. In addition to exploring the development of the skills of reflection during training, I hoped to support the development of those skills positively, tempering negative self-review right from the early stages of the participants' training. Brookfield went on to discuss the difference between reflection and critical reflection, suggesting that all reflection had value, critical or otherwise (Brookfield, 1995). My intention was to explore trainees' development in reflective practice during the training year. This approach values the reflections at all stages of their training. It is my view that all reflection is important and I see it as a professional responsibility to understand the development of this key aspect more fully, to enable me to fine-tune my practice as well as informing the future design of the ITT core curriculum at my institution.

Utilising video and video annotation software as a tool would enable me to capture the reflective practice of my participants, in a way that has not been used systematically at my institution as an integral part of the programme. Rich and

Hannafin (2009) discussed video annotation tools, suggesting that they might help to extend and augment teacher self-reflection. The use of video annotation software supported this self-analysis as well as developmental changes over time and indeed Harlin (2013) commented on changed habits in her longitudinal study, describing developing practice as the refinement of previous habits as well as developing new habits (Harlin, 2013). Schon (1987) had written about reflective practice, introducing the terms reflection-on-action and reflection-in-action. Schon described reflection as a powerful concept, encouraging critical thinking to 'restructure strategies of action, understandings of phenomena or ways of framing problems' (Schon, 1987:26). I was interested in exploring how participants' reflections developed as they trained so that I could consider how best to make changes to the teaching programme in future to support the move toward reflection-in-action. Gaudin and Chalies (2015) wrote about this link between reflection on action (watching video after the teaching episode) and reflection in action (changing classroom practice) regarding video viewing, stating that the activity influenced classroom practice (Gaudin and Chalies, 2015). I intended to provide opportunities for individual reflection and peer discussion, incorporating these elements into my research study, together with video viewing and software to capture reflections. These elements would be interrelated and complex but it would have been impossible and unrealistic to isolate video viewing and the use of annotation software from other aspects of practice in any case.

Capturing reflections using this technology would provide participants with an additional strategy for their repertoire or toolkit, upon which they would be able to draw throughout their careers. I hoped that the use of this software would enable them to develop skills of reflection as well as familiarity with the software that is increasingly prevalent in school settings. A large Education Endowment Foundation (EEF) study into the use of IRIS Connect as a platform concluded that 'the overwhelming majority of teachers who responded to the survey believed that the intervention was a good use of their time and had improved their practice' (EEF, 2017:4). Increasingly proficient in using technology, trainee teachers need exposure to new technological tools. Technologically literate, my participants may be easily able to engage with this as a tool for reflecting and in offering an inclusive curriculum we should consider incorporating such alternatives to paper-based systems as part of our provision.

Improving the quality of instruction and skills of interaction through collaborative work using this medium provided an additional potential benefit. This research aimed to offer participants an alternative mechanism for collaborative practice, potentially strengthening the training that my institution would offer as well as improving the prospects for trainees as the benefits were likely to impact on them into the future as well as being relevant to school settings as they adapted to incorporate these forms of new technology and they become more commonplace in school settings.

The research approach is defined in Chapter 3 with an outline and justification of the data collection and analysis that was planned and carried out. Ethical considerations are considered in this chapter.

Chapter 4 describes the project activity and the data for each of the action research cycles are described, together with an analysis of these findings as the key patterns emerge. This chapter is arranged chronologically, following the action research cycles and outlining key changes in project activity. Lessons learned are outlined and a rationale for decisions made during the project are included in this chapter. Findings and initial analysis are combined within this chapter, and a further discussion of the key themes can be found in Chapter 5, where the findings are revisited and discussed with reference to the wider literature and reflection on my personal learning is included.

Finally, conclusions are drawn in Chapter 6 linked to the terms of reference and answers to the research questions are explored. Recommendations for further research related to this project are suggested.

Chapter 2: Terms of Reference and Literature Review

This research project aimed to explore the development of secondary science trainee teacher's reflective practice as they trained, during the 2018-19 academic year. Of the 28 PGCE Science trainee teachers, 21 agreed to participate in the research project and none withdrew their consent during the study. There were four participants, however, who either did not complete or deferred their training and their data have been discounted. The 17 participants, whose data were included, reflected the age, gender and ethnic backgrounds of the whole secondary science group. The PGCE science group were chosen for the project, for ease of managing the data collection during the academic year, due to my regular contact with this group of students. This did, however, limit the range of subjects represented in this study, as only the scientists were included.

My project aimed to answer the research questions, evaluate the data, draw conclusions and make recommendations. My main research question was:

How does reflective practice develop as participants train to teach?

The intention to use video annotation software to explore this aspect of practice informed the sub-questions:

How does self-assessment of microteaching develop skills of reflection?

How does peer-assessment of microteaching develop skills of reflection?

What are trainees' perceptions relating to the use of software in supporting reflection?

What potential positive impact can this approach have on my practice and the practice of colleagues?

The potential of video technology in the general context of teacher education has been highlighted in the literature. Laycock and Bunnag, (1991) discussed the importance of facilitation alongside this type of technology to support reflection (for Laycock and Bunnag via the introduction of viewing guides). Tripp and Rich (2011) highlighted the importance of collaboration, which would be an important aspect of this project. In outlining their implications, Tripp and Rich said that teachers preferred to collaborate with colleagues (2011) and this is relevant to the programme of teacher training at my institution, as we use this approach regularly. Gaudin and

Chalies (2015) stated that simply viewing videos did not enhance teacher learning and this resonated with me and informed my approach. Reviewing existing literature relating to this area of research before designing the research has confirmed my view that the theme of my project had value. This was particularly true if the software could be used alongside opportunities for collaboration and facilitation in exploring reflections of participants. The literature influenced the design of my research from the early stages, as I wanted to use the technology, but to dovetail it with other elements of the teacher training programme, specifically collaboration and opportunities for peer-reflection. In their meta-analysis, Gaudin and Chalies (2015) recommended the promotion of discussions as crucial in fostering reflection. The link was made between discussions based on watching videos and maximising reflective practice, through the discussion of misconceptions or developing knowledge and skills, as well as valuing the professional vision of the participants, as opposed to imposing these. Peer-viewing and self-direction within the peer-review task at this stage of training could facilitate ownership and freedom. Gaudin and Chalies (2015) also said that very little was currently known about this kind of learning in loosely guided contexts, so this research aimed to add to the body of literature in this respect. Gaudin and Chalies (2015) went on to suggest that loosely guided scaffolds could mediate against the 'mimicking' effect that may be evident in tightly scaffolded or highly structured situations. Cycle 2 of this research had the scope, then, to build on knowledge in this field. Gaudin and Chalies suggested that trainee teachers could 'develop change-directed thinking they will more likely enact in practice' (Gaudin and Chalies, 2015:56).

Tripp and Rich (2011) suggested that research of this kind should be informed by a greater understanding of the past results of video analysis research, as video has increasingly been used to facilitate reflection. In my experience of regularly visiting schools, I had become familiar with the increasing prevalence of technology such as this across the wider partnership of schools with whom I work. Much of the existing international research highlighted the benefit of using video recording and feedback on teaching (Kpanja 2001, Abendroth, Golzy and O'Connor 2012), such as significant progress in mastering teaching skills and fostering readiness for pupil-centred teaching. This was pertinent as there was potential value to the participants of this project. Further to this, van Es and Sherin (2002) noted the use of annotation software helped teachers to develop new ways to analyse instruction. Specifically,

teachers began to identify events in their classroom interactions as noteworthy (van Es and Sherin, 2002). Rich and Hannafin (2009) discussed video annotation tools, suggesting these helped to extend and augment teacher self-reflection, which tied in very closely with my research, as did McFadden *et al.* (2014) who discussed video annotation specifically linked to developing reflective practice. This literature reinforced my view that there was value in exploring this tool as a way of capturing reflective practice as it develops during teacher training. Several of the research articles discussed trainees' perception of video as beneficial to their training (Gardner and McNally, 1995, Wu and Kao, 2008, Kuter et al 2012, Van der Westhuizen and Golightly, 2015). The development of reflective practitioners is an aim of teacher education and Kuter *et al* (2012) stated that 'being involved in video-mediated collaborative teaching and dialogue provided trainees with opportunities for an in-depth analysis, raised reflective skills and professional awareness and development' (Kuter *et al*, 2012: 1).

Eroz-Tuga (2013) noted some possible risks and obstacles, for example, whilst using video supports the visual representation of practice (as opposed to remembered or interpreted practice), this could have been challenging for any participants who held a more positive picture in their minds before viewing the video. Eroztuga (2013) also noted the time-consuming nature of the process, as did Somekh and Lewin (2011) who discussed video as part of a wider discussion on observation, highlighting the importance of observation as a data collection technique. They also highlighted some of the issues surrounding video such as complexity of behaviours, subjectivity and impossibility of recording everything. In particular, Somekh and Lewin noted the time demands for on-screen analysis (similar to the IRIS annotation tool used in my research). This was indeed a concern for me and in designing the research project I needed to consider how to mitigate against additional workload and time taken to collect the data. Gardner and McNally (1995) discussed the integration with existing assessment structures and this encouraged me to consider the avoidance of doubling up on assessment strategies which are already complex in ITT. Despite these concerns, research in ITT in school settings did describe a positive view regarding the use of video and annotation software. Gardner and McNally (1995) reported that this supported deeper thinking and the opportunity to discuss complexities involved in ITT. Van der Westhuizen and Golightly (2015) went

further, noting that trainees could see the benefit to their wider training. This strengthened my evolving views about the value of my project.

McFadden *et al.* (2014) discussed video annotation specifically as a tool for developing the reflective practices of trainees in secondary science, which is particularly close to my research area. Findings included a tendency for teachers to focus on themselves and to focus on descriptive reflection. Wright (2010) draws on constructivism to focus on how trainee teachers' thinking develops in the course of their training. Wright introduced the 'conscious competence' model of development, whereby trainee teachers moved from unconscious incompetence toward unconscious competence, through developing their consciousness of issues to be addressed and then their competence. My research would support the development of awareness for this group of participants and this should, in turn, enable them to develop consciousness regarding their competence and allow me to explore this development during their training. McFadden *et al.* (2014) highlighted the importance of combining the video annotation with reflection models to stimulate higher-order analysis and reflection on action. This influenced my approach to combine not only with the existing types of collaborative modelling and group work but also the explicit teaching of reflective models as part of the training for these participants. Overall, I felt that the literature supported my chosen focus for the research, as so many studies had commented on the positive perceptions or outcomes relating to reflection (McFadden *et al.*, 2014), the use of video as a tool (Lofthouse and Birmingham, 2010, Fukkink *et al.*, 2011, and Van der Westhuizen and Golightly, 2015) and positive effects on intrinsic motivation and interest for participants (Gaudin and Chalies, 2015).

Chapter 3: Design and Methodology

In designing this action research project, I secured funding for the use of IRIS Connect video annotation software and this technology was used to record the microteaching episodes as well as capturing the reflections of the participants. Three action research cycles, each consisting of a recording of a microteaching episode were planned, with a change of focus in each cycle to tie in with the knowledge, skills and experience of the participants at this stage of their training. The data for two of these action research cycles are included in the final report and the rationale for this will be discussed further in Chapter 4.

Opportunities for self-reflection and peer-reflection were planned for and provided and the interpretation of the reflections formed the data analysis and evaluation part of the project, together with discussions about the participants' interpretations and perceptions of the process and the technology as a tool in itself. The research project was underpinned by sound pedagogical research around the use of video annotation software in ITT, action research as an appropriate method for educational research in this context and reflective practice as an essential element of ITT.

Research approach, design and management

Initial reading (Grix 2010, Somekh and Lewin 2011, Moses and Knutson 2012) provided an overview of the continuum of ontological perspectives, leading me to define my approach as lying between the positivist and interpretivist extremes. In marking out my place on the continuum as a critical realist, I aimed to combine understanding and explanation. Grix's (2010) assertion that critical realism straddled both positivist and interpretivist paradigms influenced my early choice of approach. More recently, I have found it helpful to consider critical realism as an alternative ontological approach, rather than part of a linear continuum and this has helped me to clarify the link with my chosen research method of action research. Given (2008) defined critical realism, recognising a range of factors influencing human behaviour, which chimed with Bhaskar's work in 1975 where he described a 'stratified ontology' with empirical, actual and real levels of influence. Critical realists appreciate that a range of causative mechanisms exist and that one causal factor for an effect is very unlikely (Houston, 2010) whilst Winter and Munn-Giddings (2001) suggested that 'our understanding develops through a continuous process of 'causal exchange' with

objective reality' (Winter and Munn-Giddings, 2001). Criticality is embedded through an appreciation of the complexity and interplay between stratified layers, academic interaction with a range of causal mechanisms and an appreciation that descriptions, explanations and models evolve over time, are fallible and open to critique. Walsh and Evans (2013) described the process as emergent, where surface phenomena are influenced by and rooted in sub-structures (Bhaskar, 1975) but not completely explained by them. Critical recognition of fallibility (Scott, 2005) lends freedom, which Winter and Munn-Giddings (2001) described as transformative as the research can transform in the local context, aligning closely to my action research method. Also important was a recognition that constraints of reality and other influences (motives, politics, social and organisational context) applied to and influenced understanding and interpretation. Action research, with its focus on change would inevitably explore the complexity of achieving this in the practice or organisational context, fitting with my role as an insider-researcher and my research as work-based practice. Scott (2005) discussed reality as a constraint on the way the world could be described but also said that human beings are 'knowledgeable agents with powers to make a difference and thus have the capacity to monitor their actions and change the practical setting of action' (cf. Giddens, 1984), which fitted with my chosen research method. Change for good is a key tenet of action research. Winter and Munn-Giddings (2001) went on to say that the point of action research is to come up with an explanation, so that we can change things and the explanation can help us to do that, leading to empowerment. Walsh and Evans (2013) described this as emancipatory. As well as the stratified layers of influence and the constraints of reality, motives are open to dispute, 'to agree that our knowledge is incomplete, socially constructed and fallible does not mean that we can never have rational empirical grounds for making judgements that have a genuine purchase on the reality we experience (Bhaskar, 1989: 24). Reality may constrain our description of the world, but action research would allow for flexibility to describe in new ways within that. Action research includes the experiential realities of stakeholders as essential elements of the dialectic between action and reflection which constitutes the inquiry process. In seeking practical change action research necessarily places a primary focus on the 'real world' of participants' experience. Winter and Munn-Giddings (2001) described the complexity and interactions between the stratified layers, suggesting parallels with the interrelationships between

researcher and participants in action research. Critical realism is part of the world it describes and impacts upon it through change. Scott (2005) suggested that we cannot know anything absolutely and that critique of existing descriptions of the world are an integral part of action research. 'We cannot avoid entering into a critical relationship with previous and current ways of describing the world and, since the way they create knowledge is a part of that social world, entering into a relationship with reality itself and possibly changing it (the internal critique)'.

This evolution of ideas appealed to me as a 'best explanation for now' approach is appropriate for teaching science, training teachers and developing reflective practice, all key elements of my research. Recognising the complexity and interplay between the stratified layers between objective reality and human behaviour fits. Scott (2005) termed the nature of critical realists findings emergent and there are clear links with the developing findings that form a part of action research cycles. Critical realism and action research enable descriptions and explanations to evolve, linking to the cyclical and evaluative nature of action research cycles, where response and change are embedded, critical reflection and evaluation are embedded, fallibility is appreciated and a complexity recognised.

The benefits of working with action research mirror my natural approach as a critically reflective practitioner. Koshy (2005) described action research as constructive enquiry and part of a continuous learning process and this approach was in keeping with a plan, do and review cycle, commonly used in teacher training programmes. Action research lends itself to working as part of a community because of its' participatory nature, fitted with my role as an insider-researcher for this project. Dick (2000) described this as having direct and obvious relevance on practice. Naturally reflective in nature, action research dovetailed nicely with my focus of developing reflective practice. I considered the emergent nature of this method an advantage at the planning stage, particularly as a novice researcher, as it would enable me to fine-tune my practice during the course of the project, which I planned to carry out over an academic year. The possibility for incremental improvements facilitated by action research meant that I would not be tied to a fixed approach and would also provide the flexibility for me to develop my research skills from my start as a novice, as the study progressed. As Dick (2000) said 'vague beginnings can move towards a better understanding and practical improvement through critical analysis'. Another advantage was the use of naturalistic or informal

language for participants, which I hoped would lead to open and honest responses, as they would not need to apply the filter of academic language to their reflections. I did hope to see a development of their competence and skills during the course of the study, but I did not want to limit their honest reflections, particularly at the early stages of their training.

Koshy (2005) described action research as taking place often in the work based setting, linking to job satisfaction, citing Hargreaves (1996) who said that research-based practice would be more effective and satisfying for practitioners. My hope was that this satisfaction with the research method as an insider-practitioner would sustain my focus throughout the project, which was taking place alongside my full-time workload and would be, I knew, demanding at times.

Considering the calendar of training for the PGCE course, I planned my three action research cycles where the training lent itself well to these. An action research method had the added benefit of fitting well with the developmental progression of skills of my participants, as they trained to teach, as well as my own developing practice. My choice was influenced by my experience in knowing the demands of the PGCE course as a whole, but I also wanted to find a way to give my research the best chance of success.

An important aspect of action research included sharing findings with participants along the way and this suited the planned focus group discussion opportunities. These focus groups would give me valuable feedback about the development of reflective practice of the participants during the study, as well as exploring perceptions of the annotation tool itself, and would provide the opportunity for me to share key findings with participants along the way. With the data for this project being collected across an academic year, a fixed approach would not allow for the in-research adaptations that could benefit not just the participants (ethically sound) but provided the flexibility to give the research the best chance of success. Cohen and Manion (1994) discussed such mid-project evolution as leading to lasting benefit during the process itself. Jennifer Mason's work, where she highlighted active engagement of research participants (2002), was relevant to my research, as it influenced my design of the annotation opportunities and, in particular, the focus groups. Both of these aspects of my research project would be the crucial points where the participants would engage, and these key points would inform my findings. Mason discussed this 'highly active engagement' (Mason, 2002:4) which she

described as a requirement. Mason also discussed self-assessment, which she termed a reflexive act. This resonated with me, as my research would involve integrating a critical review of practice from trainees and my reflexive acts throughout.

Reading Schon (1983), Brookfield (1995) and Allison (2015), developed my understanding of reflective practice further, linking closely to my role as a work-based researcher in ITT. Reflection, in my view, aids the transition from a perceived best approach to an applied and informed approach, linking theoretical perspectives on teaching and learning to practice. Brookfield phrased this nicely in saying 'critical reflection is, quite simply, the sustained and intentional process of identifying and checking the accuracy and validity of our teaching assumptions' (Brookfield, 2017:3).

Methods of sampling, data gathering and data analysis

Two limitations from the outset were time and the specific group of participants chosen, the secondary science trainee teachers. Flick (2007) noted a range of practical restrictions and, of these, the time restriction was a concern. This concern proved well-founded and did impact on the number of cycles of action research undertaken as part of my data collection. Flick (2007) also discussed the role of intuition and the importance of this. This strengthened my view that I had chosen the right method, as the action research mid-cycle review and the scope to adapt and change during the study intuitively and in response to needs at the time was an important element. I did not want to be constrained by a fixed approach.

During the project, the planned second cycle of data collection did not fit well into the schedule, due to the emerging needs of the group of students in January. Rather than carry out the second data collection cycle in January, I chose to defer it until later in the academic year, when it would fit into the teaching cycle more readily. The impact was a delay from January 2019 to March 2019, toward the end of the teacher training (which finishes at the end of June). The third microteaching cycle was carried out, but I have discounted the data as I did not allow appropriate time for the trainees to complete the reflections using the software, this having taken place right at the end of the training in June. This was an oversight and although some trainees did provide retrospective reflections, this did not include the whole group of

participants. Following each microteaching session, I asked participants to annotate their video clip and reflect on what they noticed, using the video annotation software. After each cycle of microteaching and reflective commentary opportunities, I led a focus group discussion for all of the participants to discuss their perceptions, reflections and interpretations of the process to include the microteaching itself, the videoing and the annotation tool.

Having collected my data, I found Mason (2002) helpful in considering how to analyse it. Mason summarised the complexity and interplay between the video, reflections, interpretation by participants and by me, saying 'If you want to produce interpretive and reflexive categories, they are likely to be based on what you think you can infer from parts of the data, or what you think they imply' (Mason, 2002: 154). Mason (2002) warned of the danger in assuming that categories or slices of data are fixed variables, once the coding had been applied. This was an invaluable insight for a novice researcher and I applied this thinking in deferring the coding and analysis of my data to the end of the data collection cycles. I reviewed the data between each cycle, looking for emerging patterns and evaluating the research design as part of the action research approach, but I did not apply any 'hard' coding at this stage. Having read Mason, I appreciated that this did not constitute analysis. At the end of the academic year, having collected my data, I decided to analyse it more fully. I wanted to interpret the reflective comments and as Mason (2002: 179) had suggested: 'searching my data for and organising them around relevant interpretive categories or themes'. An initial analysis led me to adopt an approach to coding my data based on the hierarchical 'learning to notice' descriptors (van Es and Sherin, 2002:571) but I found that in reality these were not as easily applied to my data as I had anticipated, leaving me with something of a dilemma. I realised that I wanted to focus not on hierarchical or 'better' reflections over time, but rather the change and development in reflective practice during the training period for participants. I revisited the data with a fresh eye and instead of taking a hierarchical approach to categorising the data, I adopted a coding approach very loosely based on the Gibbs (1988) reflective cycle categories, discussed further in Chapter 4. Having introduced a session towards the start of the ITT training year to focus on models of reflective practice, I had become familiar with Gibbs' cycle of reflection (which is very commonly used). Many of the participants were already familiar with the Gibbs cycle categories from their pre-course subject knowledge enhancement

(SKE) courses. The development of the workshop two years ago was a direct result of my evolving awareness of reflective practice and my desire to support trainee teachers with ways to help them to structure the reflections as an integral part of their training. Revisiting Gibbs at the stage of coding my data seemed like a novel approach, facilitated by my choice of action research, which enabled me to evaluate and adapt my practice during the research and make changes based on response to the interim data or in this case during the analysis stage. As Mason (2002) had discussed, reflexivity was an important aspect of analysing data.

This approach to analysing my data completely transformed my mindset about dealing with the reflective comments as a cyclical model, rather than a hierarchical one, allowing the opportunity for subsequent freedom in interpreting the data linked more closely to reflective practice and less to a hierarchical framework as described by van Es and Sherin (2002).

Ethical, moral and legal issues

This research aimed to uphold the principles of ethical theory, namely 'non-maleficence, beneficence, autonomy and justice' (Flick, 2015:32). I applied for and was granted ethical approval for my project and as a part of the application, I paid particular attention to the ethical considerations around the use of video as well as considering my role as researcher-insider. I considered the literature again at the ethics application stage (Portwood, 2002, Somekh and Lewin, 2011, Floyd and Arthur, 2012).

In aiming to limit harmful impact whilst enabling my participants to be actively involved in the research, I took care that my trainees did not feel compelled to take part. I felt that this transparent approach was helpful and I made it clear on the consent form (Appendix 2) that the participants would have access to the video footage but that this would not be publically available unless they chose to share it. I ensured that annotations and data were anonymised and that pseudonyms were assigned.

I was aware that in some cases the use of video technology in the very early stages of teacher training can be harmful (Gaudin and Chalies, 2014). I did not feel that this would be a big risk in the case of my research study, as I already use video at this early stage of training to enable participants to practise the skills of delivery in a safe

setting. Usually this would be followed by feedback from peers. In making a choice to allow for individual reflection, following the first microteaching session, I was hoping to mitigate the risks to participants, by allowing them a safe and private space to reflect on their very early practice. I did brief the participants about this data collection method and explained anonymity and that their reflections from this cycle would only be read by themselves and me.

I was open in my ethics application about the likely benefit to me from carrying out this research, for example, through the attainment of a higher degree. Costley and Armsby (2007) discussed situated practice and I felt that this applied to my project. My place within this 'situation' and my understanding of the other factors (political agendas and policy, University structures and constraints, ITT frameworks and professional standards as well as ethical codes of conduct and legal frameworks) all played a part in influencing my chosen research questions as well as the epistemological, ontological and methodological positions that characterise this research project. Most importantly, however, were the human elements involved in my work and I planned to take great care to consider the ethical and moral dimensions that can affect the people with whom I come into contact as a professional and avoid, as far as is possible, doing any harm in line with the British Educational Research Association (BERA) guidelines.

Chapter 4: Project Activity and Findings

Cycle 1

As planned, a 5-minute microteaching session was recorded during the induction phase of training, in September 2018, followed a few days afterwards by the opportunity for participants to review the microteaching video individually, completing a reflective commentary. I felt that the opportunity to complete this as an individual would be less threatening at this very early stage of training as Gaudin and Chalies (2015) had noted potentially harmful effects of using video so early in the training cycle. Microteaching and video feedback during the induction stage of the ITT course at my institution were already in place and generally well-received by students. As such, I anticipated no issues with my participants observing and reflecting on their practice in the early stages of their training. The annotation software was used effectively by all of the research participants to record their reflections about the microteaching episodes. This software was inclusive in that all of the participants of the research study were able to easily access it and add their annotations, following the user-friendly format. I did not provide a time limit for this initial reflection upon the microteaching video, so as not to constrain the reflections and opportunities for redrafting, should they be required.

Before the cycle 1 reflective annotations, I had delivered a session on reflective practice to the participants as part of their induction training. This session outlined the importance of reflective practice, linked to their weekly paperwork, which has an element of reflection, together with some suggested models of reflection from authors such as Schon (1983), Gibbs (1988), Brookfield (1995) and Rolfe (2001). I particularly liked Rolfe, as there was a helpful list of questions to support the 'what, so what, what next?' approach that I knew from experience science student teachers generally liked to use. This session was designed to support reflection in the early stages of training more generally but clearly could apply to reflection using the annotation software during cycle 1 of my research. The design and inclusion of this workshop was a direct result of my preparation for the research, during the planning phase and my emerging focus, as part of my practice, of reflection and reflective practice.

Following the sessions where participants completed their reflections, I watched the microteaching episodes and read through the associated reflective comments to give

me an overview of the key themes which were emerging. I decided not to fully code the data at this stage, making a decision to code and analyse the data as a whole at the end of the data collection cycles. I engaged with the data more loosely in preparation for informing the questions for the first focus group. In some ways, it may have helped me at this stage to take a more formal approach to coding and analysing my data. I didn't do so, partly because I wanted to work with all of my data at the end of the project and partly because of time pressures linked to workload at this time. In the spirit of applying my action research method I did apply some interim analysis, however, by reading and reviewing the reflective comments, making a note of some of the emerging patterns and themes and identifying issues to discuss with the focus group.

Figure 1 lists some of the reflective comments from cycle 1 that focus on teacher or participant activity when watching the microteaching videos:

Figure 1

| Reflections from Cycle 1 – participant activity |
|--|
| "I moved around to listen to their input" |
| "I called out a student by their name" |
| "I gave them props" |
| "I didn't utilize the full time given" |
| "Voice was well-projected but some stuttering" |
| "A fair amount of 'umming and ahing'" |
| "I faced the crowd" |
| "I probably should move less around the screen and use less [sic] hand gestures" |
| "Projection of my voice needs to be clearer" |
| "Good eye contact with the audience" |
| "My tone of voice provides clarity" |
| "My language was too informal for the class" |
| "My speech flowed well" |
| "I used humour" |
| "I used good body language and eye contact" |

Many of the comments at this stage were related to teacher performance, often

linked to voice, body language, use of words and gestures and physical movement around the room. Many of the reflective comments focussed on the use of slides, or the presentation on the screen as well as the physical resources used during the microteaching sessions. The majority of the comments made at this stage were descriptive and written in short sentences for the most part. Gaudin and Chalies (2015) recommended that the use of video should be within the zone of proximal development of the viewer, 'matching their capacity to identify and interpret classroom events' (Gaudin and Chalies, 2015:55). Early in their training, it made sense that reflections were largely descriptive and are focussed on participant activity. This was anticipated during cycle 1.

Some of the reflections did focus on student activity, however, as shown in Figure 2 below:

Figure 2

| Reflections from Cycle 1 – student activity |
|---|
| <p>"Students responded by laughing"</p> <p>"They were able to answer questions I had posed them"</p> <p>"Everyone got on with the task"</p> <p>"Some pupils were helping the person next to them"</p> <p>"the audience was engaged and interactive"</p> |

These comments tended to be short and descriptive and there were far fewer of these types of comments than reflections focussing on participant activity in cycle 1. Lofthouse and Birmingham (2011) identified teacher training as a highly charged endeavour (2011) requiring students teachers to overcome the inevitable exposure they feel in front of classes. I felt that the use of video in my study, during cycle 1, in the safe environment of University in front of peers helped the participants to overcome some of this exposure, reassuring them that they could stand up in front of a group and teach. In commenting on their activity, as many participants have done in cycle 1 reflections, they are doing so through the lens of the pupil or peer (Brookfield, 1995), as the video recorded from the viewpoint of the pupil in the room. Many of the previous studies highlighted comments from participants that illustrated their awareness of their developing practice. Lofthouse and Birmingham (2011)

referred to this as the 'penny dropping' (2011: 10) and Gaudin and Chalies called this a 'mirror' (2015: 51). The focus on participant activity at this stage, as illustrated by many of the cycle 1 comments, fitted with the model of development highlighted by Wright (2010), insofar as the participants are starting to develop their consciousness but are still at the early phase in terms of competency early in their training.

Figure 3 shows reflections which feedforward, linking to future improvements in practice or noting negatives:

Figure 3

| Reflections from Cycle 1 – future improvements |
|---|
| “I should have added an initial slide” |
| “Use of facts on each image would have been useful” |
| “Room for improvement such as asking questions to students who did not participate” |
| “I would avoid reading from the slides” |
| “I should ensure I finish my presentation on time” |
| “I could use more eye contact to draw the attention of my audience” |
| “Next time I will ensure by talking slower” |
| “I should have used objectives” |
| “I would improve this by looking at my images” |

Interestingly, the reflections often focussed on elements of the microteaching presentations that the participants had observed when their peers were presenting earlier in the day, such as links to asking questions, including learning objectives and encouraging engagement. Although it is impossible to know how much influence the order of microteaching presentations had on the reflections, a gap of a few days between delivering the microteaching episode and writing the reflections may have helped to mitigate against this, I suspect. This is because all of the participants had seen all of the microteaching presentations followed by a gap and some thinking space and distance, before completing their reflections. Many of the comments were related to improving practice in the future, I can make a tentative link between the reflective practice workshop delivered during induction and the reflective comments

about microteaching. The reflective practice workshop focussed on models to support thinking forward and reflecting on how future practice could be developed, such as 'what next?' using Rolfe (2001), or action planning using Gibbs (1988). It is impossible to know whether reflections would have focussed on improvements had this workshop not been in place but reassuring that the participants were thinking about how to improve right at the start of their training journey.

As well as the kinds of reflective comments highlighted above, a few of the reflections focussed on the use of video itself and these are listed in Figure 4:

Figure 4

| Reflections from Cycle 1 – the video and annotation software as a tool |
|--|
| <p>"I believe that watching the presentations back and more preparation will help. This exercise has been useful as I feel better about my presentation after watching it back and it will help with my confidence within my presenting skills"</p> <p>"I'm so glad that I watched this video!"</p> <p>"I'm usually very self-critical ... watching the presentation back, I find that it was better than I had visualised in my mind"</p> |

These comments all linked directly to the feelings and emotions of the participants during the process. This led me to consider where else feelings were outlined in the reflections. In revisiting the reflective comments from cycle 1, a pattern emerged regarding these types of comments and I felt that these confessional responses (Moon, 2004) had been supported through the use of this particular tool. My experience tells me that rarely participants would confess as part of their paper-based reflections, and it is not something that had emerged as a theme before carrying out this research, using this software. It could be that the 'feelings' category of some reflective models in the induction workshop (Gibbs, 1988) or 'self' (Brookfield, 1995) had supported this type of reflective comment. On the other hand, it could be linked to the software and this is something worth exploring further, I feel. I shall discuss this further in chapter 6.

Figure 5

| Reflections from Cycle 1 – feelings |
|---|
| "I feel like my audience was engaged" |
| "This was probably due to nerves" |
| "I sound very anxious when I am talking" |
| "This was due to being anxious" |
| "I was pleased with how I engaged with the class" |
| "I gave a bit of humour" |

Similar studies have been conducted with pre-service teachers, for example, van Es and Sherin (2002) who described the data in terms of levels of 'learning to notice' and McFadden *et al* (2013) who described the data in their study in terms of hierarchical reflective stances. It was striking that although common reflective models such as Gibbs (1988) and Brookfield (1995) paid explicit attention to feelings and the emotional aspect of reflective practice, previous studies have not often focused on this area, if ever. In the McFadden *et al* (2013) study, the focus was a distance learning, online forum. The value of these platforms in preparing teachers for training and linking to reflective practice was important, but I wondered whether the development of an atmosphere of trust as part of the induction phase of training at my institution lent itself to openness and honesty in exposing feelings as part of the reflective process, even very early in the training cycle. This may have been particularly evident here, as the models that were introduced to the participants before they wrote their reflective comments included emotional aspects.

Between Cycle 1 and Focus Group 1

Between reviewing the cycle 1 reflective comments and holding the first focus group discussion, I decided on a list of questions for the focus group. These questions can be found in Appendix 4 and probed the participant's views on using the video and the video annotation software as a tool and the use of this tool in comparison to paper-based reflections. I also decided to ask the participants' views about what they thought the main themes from the first cycle of reflections may have been as well as asking what improvements they thought may improve cycle 2. I asked about their perception of reflection and evaluation and whether they thought more guidance

should be given next time.

Focus Group 1

In October 2018, a month after the first cycle of microteaching and reflective commentary, a focus group was held to discuss cycle 1. A semi-structured schedule of questions was prepared to guide the discussion (Appendix 4). The advantage of having a gap between cycle 1 and the focus group was the development in confidence and skills of the participants during the intervening period. The disadvantage was the length of time between the sessions, where some forgetting almost certainly took place.

I invited the participants to attend the focus group and recorded the session. I am pleased that I decided to do this as it has made reviewing the comments made at the focus group easy to return to and enabled me to listen and lead the group without having to take notes during the discussion. During the focus group, I asked the prepared questions, which I gave out as a paper copy at the start of the session. I allowed the participants some time to engage with the questions at the start and then asked the questions in turn. Where detailed answers were forthcoming, I allowed the participants to give free responses. I also allowed the participants to discuss the questions in small groups or pairs before responding, to give them some thinking time and enable them to draft some of their feedback before responding. The open questions asked during the focus group (as well as these being spoken rather than written comments) led to some extended responses in comparison with the shorter, more descriptive cycle 1 comments. This may have been due to the nature of some of the questions at the focus group, asking about personal views on the process as well as exploring the participant's views on what reflection meant to them and how they defined it in comparison to evaluation.

In response to a question about views on the reflection activity, using IRIS Connect software, participants reported positive views about the use of the technology, feeling that it was discreet and better than someone holding a camera in the room. Notably, the participants felt that it didn't add to the anxiety, as they were already feeling nervous about teaching for the first time. Responses focussed on the perceived benefits of looking at their presentation (which reinforced some of the reflective comments made during cycle 1). It was felt that multiple cameras would be good, but the participants appreciated the cost implications of this. One participant

suggested that it took them out of their comfort zone, but “gave me an insight into what I look and speak like”. Some differences were pointed out between what was remembered, with one participant feeling like the class weren’t engaged, and what was observed on the video when they thought that the class were engaged. Positive words like “productive” were used to describe the experience and a consensus that “you pick up on a lot more when you look at the video”. Lofthouse and Birmingham (2010) have stated that 'student teachers considered the use of video to have had a positive impact on the way they reflected on their teaching' (2010:8). One comment, which I feel is quite powerful, was a focus on self-criticism leading to an increased likelihood of making changes more quickly. In previous studies, student teachers routinely reported that watching the reality of the lesson on video revealed different features than those they recalled through memory, and thus provided a more reliable platform for reflection. (Lofthouse and Birmingham, 2010). Gaudin and Chalies (2015) had discussed this too, describing participants’ perceived differences between what they see on the video and what they were able to recall from memory of the lesson. They also suggested that this would counteract harsh self-criticism and this chimes with the focus group 1 discussion where participants noted being pleased that they had had the opportunity to view the video, feeling that it was a positive experience. This chimes with Gaudin and Chalies, who described participants perceiving the opportunity to view video as a beneficial experience (Gaudin and Chalies, 2015:51).

When asked to identify the main issues identified in the reflections at this stage of training and the nature of reflection at this stage, several themes emerged. Themes linked to the presentation such as pace and engagement of the students. Themes linked to participant activity like body language, voice projection, hand movement, speaking too slowly, replying to questions, eye contact and engagement with the audience were raised. Themes linked to reflections and the feedback was that participants felt the reflections would have been basic at this stage. Comments included “We have learned a lot since then, looking at the different models etc.”, “We probably didn't look for reasons why we did things”, “instead of identifying why we did things, we may have identified what we did and say we wanted to change it”. A comment about the time limiting the depth of reflection “the time lent itself to surface level reflection, rather than more time to reflect more deeply”. This final comment was interesting as no time limit had been placed on the task, but one

participant must have felt that this was the case. For the most part, the participants were able to identify the issues that were raised in the cycle 1 reflections and noted the focus on participant activity. It is interesting too to note that one participant thought the reflection models session was after the first cycle of reflections, perhaps because of the time that had elapsed between cycle 1 and the focus group.

I asked the focus group next about the pros and cons of this activity vs. paper-based exercises for reflection and how they felt this tied in with the reflective models.

Feedback was positive about the use of the annotation software and video, as it was felt that less would be missed using this approach, as compared to remembering and that participants may have been less likely to view the video negatively in comparison to recalling the teaching episode. The consensus was that the video supported a review of aspects about which participants were unaware, which offered "a different perspective". There was also a comment, however, that a paper-based reflection would have been more thought-through. It was felt that feedback from someone else would have helped, to compare self-assessment against and that an external viewpoint could provide further guidance to support improvement. This could certainly be taken into account in future sessions of this nature.

Comments relating to the use of the reflective models suggested that these were not used when reflecting using the annotation software. One participant noted that they considered reflection on action and reflection in action when completing their reflections, but this was the exception rather than the rule. I felt, looking for emerging patterns in the cycle 1 data, that the participants had considered the reflective models that had been shared with them, especially embedded within comments relating to feelings and emotions and linking to future improvements that were suggested in the previous discussion. It was interesting that most of the participants did not feel that this was the case, except for one participant who cited Schon's (1987) model in response to this question. Perhaps the reflections would have included these aspects if the reflective practice workshop had not been attended during induction, or perhaps the participants were using some of the approaches in reflecting using IRIS, but not consciously. This would tie in with the development of unconscious competence (Wright, 2010) as the training progressed for the participants, although it felt a bit early in the training for this. Alternatively, I suppose that these skills could have been becoming embedded sooner than

anticipated, through practising weekly reflections and an ongoing focus on these skills of reflective practice embedded in my teaching and planning.

In response to a question comparing reflection with evaluation, participants noted that evaluation builds on reflection, reflection being linked to improvement as opposed to the evaluation being linked to what was done. Another response noted the opposite. Some disagreement and discussion led to quite a few responses relating reflection to deeper thought processes and self-awareness, with the reflection being closely linked to self "if you reflect, you will most likely change things", "reflection is more personal" compared to evaluation being more superficial and being quicker.

Suggestions for cycle 2 led to some brief comments relating to the timing of activities and guidance on structuring a presentation. On the other hand, some participants felt that too much guidance would have restricted creativity for the microteaching task, so there was disagreement in the room on this point. The idea of co-presentations was introduced by participants at this stage. When asked about peer-peer work, the response was overwhelmingly positive. "We are all in the same boat, so it's relatable". The participants were keen to move towards a collaborative approach for the second cycle of microteaching, especially as this would mean that more time would be available for each microteaching episode. Lewis (2018) had commented that 'a key limitation of many models of reflection is that they rely solely on our reflections. These are of course valuable but carry some risks. For example, how do we know if we are reflecting on the right things to transform our teaching and pupil learning?' (Lewis, 2018:5). In supporting the move toward peer-peer work, the participants supported my proposed plan for cycle 2, where collaborative work was planned as the focus of the second cycle. I had hoped that peer-peer work would provide greater opportunities for planning, delivering and reflecting upon the second microteaching cycle, particularly having read the literature, which supported collaborative work using video, as argued in chapter 2.

Wu and Kao (2008) reported that pre-service teachers criticised the time needed to peer-review and comment on several videos, in their section on perceptions of the participants. Wu and Kao had used a system whereby each trainee watched several of their peers' videos and reflected on each one. In this research, I planned to manage the time as effectively as possible and I decided to include peer-peer collaborative reflections after the second cycle, rather than individual reflections.

The disadvantage of not being able to compare the development of reflective practice for individuals was outweighed by the opportunity to allow for ownership and choice for this stage of the research, as well as incorporating the collaborative aspect that so many of the previous studies have highlighted as a strength. I felt that I would still be able to see emerging patterns of reflective practice from the collaborative comments and that this would be supported by the opportunity to discuss and collaborate with peers.

Between Focus Group 1 and Cycle 2

The inclusion of some additional teaching sessions during return week (the week between the two school-based placements) in January 2019 necessitated the deferral of the second cycle of data collection. There was also the need for some additional planning time for this second cycle of microteaching, as the participants had responded positively to the suggestion about peer-peer collaborative work at this stage of their training, but had made it clear in the focus group that they felt more time was needed for the second cycle of microteaching. An extra teaching session for collaborative planning would be needed, hence the delay to the second microteaching session.

By working in small groups, this was feasible and longer teaching sessions of 10-15 minutes were planned. I agreed that this would benefit the participant's development and chose to amend the timing of the data collection for this project. Some ownership of the process was an important aspect and although I had discounted participatory action research as an approach early on, I did feel that it was important to value the views of the participants. This was partly to mitigate against any negative or harmful impacts, linked to ethical reasons, as well as making perfect sense, as collaborative planning and delivery are an integral part of teacher training and these are skills that I would want to foster in these students.

Cycle 2

The focus of cycle 2 was quite different from cycle 1. As well as working in groups of three, with a 15 minute time allowance for the microteaching session, the focus was on secondary science subject knowledge at Key Stage 4 (GCSE) level, in the specialist area. Participants who train to teach secondary science were expected to teach biology, chemistry and physics in the lower years of the secondary phase (Key

Stage 3) but specialised in one of these subjects at Key Stage 4. At this stage of training, a key area to focus on is the development of science subject knowledge for the higher tier of GCSE (relating to triple science content). To prepare participants for the task, I led a session to review their subject knowledge in these key areas of the secondary science curriculum and asked the participants to identify an area of their subject knowledge they wished to develop. It was hoped that the whole PGCE group would benefit from this microteaching input, as areas of development relating to subject knowledge in these areas would be likely to be commonly held across the group. This would mean that the participants leading the sessions and their 'students' would benefit in terms of their overall subject knowledge development. I felt that the cognitive demand would have been too high had I asked the participants to focus on an aspect of their subject knowledge outside of their specialist area. The nature of the task (with a specific focus on subject content) led, perhaps unsurprisingly, to reflective comments linked to the content, such as those outlined in Figure 6 below:

Figure 6

| Reflections from Cycle 2 - subject content |
|---|
| "More scaffolding was needed, starting with basics and building up to drawing esters" |
| "We modelled the question as a class before we gave them the questions to tackle, this ensured that the students understood what they had to do" |
| "The exercise helped peers to think of answers to the questions drawing on knowledge and working in groups with at least one biologist to share knowledge" |
| "The idea was to create a pupil-led activity to help with the cohort's biology knowledge regarding culturing microorganisms" |
| "I gave an example of an isotope and explained what isotopes are, however, I do feel that I could have spent a little more time making sure that the class understood what isotopes are by giving them an example and asking them to identify an isotope" |
| "We delivered a revision lesson on the topic of the heart in the form of a board game" |

“To prepare for moments like this I would also check websites such as RSC* to search for commonly asked questions or misconceptions”

*RSC – Royal Society of Chemistry

The subject-specific nature of the reflective comments made sense given the focus of cycle 2 microteaching and the development of specific subject knowledge that formed a core part of the teaching for this group of participants. It is interesting to note, however, that as well as a subject-specific focus, many of these comments were related to the students or learners (often termed the audience by participants), rather than participant activity. Cycle 1 reflections often referred to participant activity, so this was a shift of focus. Reflections related to student or learner activity, are highlighted in Figure 7 below:

Figure 7

| Reflections from Cycle 2 – learner activity |
|---|
| “The students were tasked with taking a leading role in the activity” |
| "It was student-led" |
| “The lesson was an interactive lesson and the students were consistently targeted and questioned throughout. Students were engaged” |
| “Students were encouraged to participate” |
| “Opportunities for self-deduction were given” |
| “The questions given were a mixture of MCQ* and longer written answers to ensure that all participants contributed” |
| "By creating competition, most were determined to engage in the activity" |
| “This ensured that the students understood what they had to do” |
| “All the students were on task...there was one group who were stuck on the first question” |
| *MCQ – multiple-choice questions |

Gaudin and Chalies (2015) discussed aspects of viewing one's professional practice in their meta-analysis. As part of this discussion, they considered the repeated use of video viewing, which applies here, saying that ‘with repeated use [participants] enhance their cognitive powers of observation, identification and interpretation as well as their capacity for classroom action...for example, they see more clearly their

interactions with the students (Gaudin and Chalies, 2015:54). This change in focus from participant activity to student activity is captured in the reflections quite clearly for cycle 2. Gaudin and Chalies also discussed viewing a video of peers, pointing out that participants found this to be reassuring, providing a window into practice (Gaudin and Chalies, 2015) that engaged them in critical and comparative thinking. This enabled the participants to empathise, as they realised that they faced similar issues 'which ultimately makes it easier to change classroom practices after successfully identifying, interpreting and discussing new ways of doing things' (Gaudin and Chalies, 2015:51). A noted disadvantage was that peers were unlikely to engage in deep criticism of peers' practice and the focus on positive aspects in cycle 2 reflections probably did support this argument for the most part. This is where the peer reflective feedback led to a potential issue, in that it was not clear whether participants were criticising their own practice or that of their peers, as the annotations at the end of cycle 2 were collaborative. Some criticisms were evident in the following examples, which may be personal or relating to practice of peers.

As with cycle 1, many of the reflections for cycle 2 focussed on future practice and improvements. Some examples are highlighted in Figure 8

Figure 8

| Reflections from Cycle 2 – improvements |
|--|
| "The areas that needed to be improved were the complexity of instructions, some questions lacking clarity and the amount of time the students were given. To make this activity better we could have taken more time to explain the rules so that we wouldn't need to explain them again to individual tables" |
| "For the plenary, it would have been ideal to have an exam question to stretch and challenge students" |
| "In future, I should focus on my questioning and give time for pupils to think before they can answer the questions" |
| "If we were to do this task again, I suggest that it would be easier for the students to come to us instead so that it's easier to identify students who were struggling with the task" |

“If I was to do this activity with one of my classes, I would probably pre-select groups to save time and also to ensure that the behaviour of students was easier to manage”

“With more time we could have incorporated a way of assessing overall comprehension of the topic as we were not able to check everyone’s written answers”

These comments were more evaluative and written in longer sentences, using more educational terminology than the shorter descriptive style of reflections that were written in cycle 1.

Revisiting the reflections during the writing stage of my research, recently, I noticed that many of the cycle 2 reflections focussed on questions. Figure 9 gives some examples:

Figure 9

Reflections from Cycle 2 - questions

"Prepare an adequate number of questions for the time provided, and make questions more explicit and straightforward"

“Some questions lacking clarity and the amount of time that students were given”

“It would have been ideal to have an exam question to stretch and challenge students”

“Students were consistently targeted and questioned throughout”

“I managed to walk around the class and answer questions from pupils. To improve my teaching in the future, I should focus on my questioning and give time for pupils to think before they can answer the questions”

“When I asked a question the class were responsive and answered the question”

“Search for commonly asked questions on this topic or misconceptions”

“I felt that I underestimated the types of questions that could be asked”

“Making them aware that they have to answer a question individually at the end will encourage them to pay attention during the activity”

“They had to decide together on an answer for the group questions but then also for the longer written question”

“The 6 marker question at the end should have been peer marked and more emphasis put on explaining questions in the future”

“We modelled the question as a class before we gave them the questions to tackle, this ensured that the students’ understood what they had to do”

This was unsurprising, perhaps, as the participants were training to teach and developing their skills of assessment during the course, there was a strong emphasis on questioning. At this stage of training, the participants had just completed a second Masters level assignment focussing on assessment and it made sense that questioning as an integral part of teaching and learning is evident in their reflections as they developed as teachers and a particular emphasis on this aspect of practice at this time shows in the reflective comments for cycle 2. It is clear that participants were engaging with educational literature and considering how they may apply their academic learning to the task during this cycle. Some cycle 1 comments did also focus on questioning, but the focus of questioning shifts between cycle 1 and cycle 2 from participant activity toward pupil progress, attainment and assessment for learning. The pedagogical language used within the reflections was more complex, as educational terminology became embedded within their practice, evidencing developing competence two thirds of the way through the training. Brookfield (1995) termed this the theoretical lens and this research has enabled me to explore how the participants linked their academic learning and practice in a way that I have not used before. This adds to the approaches used during this course in a less formal way than a Masters level assignment.

Fewer reflections highlighted the use of video in cycle 2, but some did comment on the structure of the task, as noted in Figure 10

Figure 10

| Reflections from Cycle 2 – the use of video and the structure of the task |
|--|
| <p>"It was good this time because we worked with other people"</p> <p>"Fewer, longer, better presentations and the amount of effort that has gone into planning was noticeable and much better than cycle 1"</p> <p>"This session was an overall improvement from the first microteaching session, as a group, we were more confident and using our pedagogical strategies to have a variety of learning activities"</p> |

The reflective writing following cycle 2 was more detailed, linking subject knowledge and pedagogical choices either describing the rationale for choices made or linking to future improvements linked to the Teachers Standards. More complex sentences were evident with more connectives and the embedded use of educational terminology. Cycle 2 comments were more focussed on specific intentions to fine-tune future practice in a way that completed the reflective cycle (in line with models such as Gibbs (1988) and Rolfe (2001)). This 'full circle' type of reflection was more evident in Cycle 2 than Cycle 1. There were exceptions and whilst some participants had moved on in terms of deeper and more detailed reflective comments compared to others, statements such as "it would have been useful to have some hand-outs for filling in" show that some participants are not reflecting in as much depth at this stage of their training. van Es and Sherin (2002) noted that 'teachers should begin to make inferences and draw connections between specific events and broader principles of teaching and learning' (van Es and Sherin 2002: 245) and some of my participants did demonstrate this.

Focus Group 2

Following the collaborative reflective feedback session after microteaching cycle 2, the participants were asked to discuss their views about the differences between cycle 1 and cycle 2 and give feedback. This session was recorded directly after cycle 2 collaborative reflections on this occasion. Far fewer responses in this focus group were evident, probably because the participants had just spent time discussing cycle 2 and writing their collaborative reflective comments based on the microteaching videos, using the annotation software. This focus group feedback was positive, with one participant saying "it was good this time because we worked with other people" and another noted, "fewer, longer, better presentations and the amount of effort that has gone into planning was noticeable and much better than cycle 1" "this session was an overall improvement from the first microteaching session, as a group we were more confident and using our pedagogical strategies to have a variety of learning activities". Participants did comment that they would have appreciated the opportunity to deliver sessions outside of their subject specialism, with one person commenting "it would have been good to focus on an out-of-specialism topic" and a few others agreeing. This was considered in reviewing the second cycle and planned flexibility and choice for cycle 3.

There were also some comments during the second focus group around the limitations of the one camera, as this didn't enable the capture of a 360-degree angle. Comments included "a problem is that it doesn't capture everything i.e. when a person is off-screen" and "some shots of the screen or PowerPoint would be good so that we can see what the audience sees". Dealing with this within the limitations of the funded licence was not straightforward but I attempted to mitigate the problem during the third microteaching cycle by using smaller portable devices and moving around the room.

Cycle 3

The third and final microteaching opportunity took place in June, towards the end of the course. This cycle was planned as a marketplace activity, with elements of free choice of the subject area included, in response to feedback from the second cycle. This session was dovetailed with a post-session task from the 'Using Technology' PS session that forms a part of the training programme. It was felt that this would be a sensible use of time, as the trainees were asked to complete a follow-up task to present in any case. This session fitted very well with the microteaching approach

and allowed a choice of groups and topics for the trainees. Mobile cameras were used, to capture the whole room and individual group's microteaching sessions. I did not allow enough time for effective reflective commentary following this microteaching session, which was an oversight and so findings from this session can only be interpreted through the videos themselves and the feedback provided from one of the trainees who provided reflective comments retrospectively. As such, this data has been omitted from the study and is not included in the findings section, but it did form a part of the project activity.

Analysing and coding the data

In dealing with my data I have taken a somewhat circuitous route. I had originally planned to categorise the reflective comments using a similar structure outlined by van Es and Sherin (2002), the learning to notice levels. At the end of the data collection cycles, I attempted to apply this categorisation and quickly found that it did not easily match my data. For example, the reflective comments dealing with emotions and feelings did not fit well into any of these categories, as discussed at the end of Chapter 3. I considered a broader categorisation, along the lines of McFadden *et al*, who described their categories thus 'Describe refers to statements that recounted the events that occurred in the clip. Evaluate refers to statements in which the teachers commented on what was good or bad or could or should have been done differently. Interpret refers to statements in which the teachers made inferences about what they noticed' (McFadden *et al* 2013:8). Although these descriptors were a closer fit, I still felt that they didn't fit my data set particularly well. Following this, I decided to apply the categories from the most commonly used reflective model (Gibbs, 1988), but I adapted the descriptors to fit my data and to include those comments that did focus on the video and annotation software as a tool.

Figure 11 – The Gibbs model of reflective practice

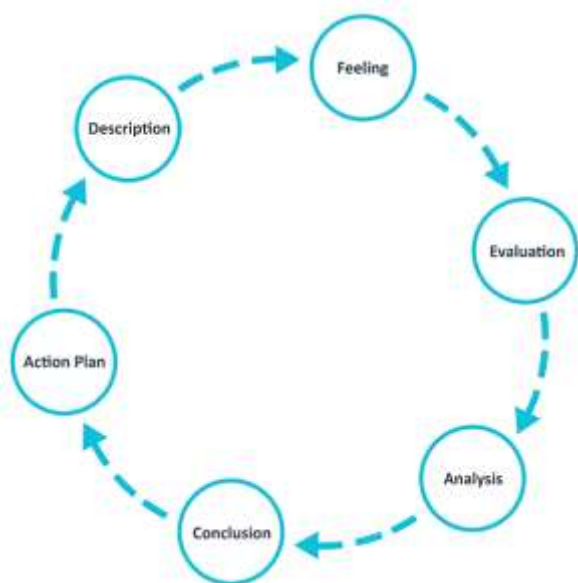


Figure 12 –The descriptors applied in coding my data.

| Descriptor | Examples |
|-------------|---|
| Description | I moved around I didn't utilise the time I set clear instructions |
| Feelings | I liked that I called a student out by name I believe that my presentation was delivered confidently This was probably due to nerves |
| Evaluation | It needs more pictures It needs to be more interactive Work on time management I could have projected my voice more |
| Analysis | The exercise helped peers to think of answers to the questions, drawing on knowledge and working in groups with at least one biologist to share knowledge By creating more competition, most were more determined to engage in the activity, however, this can also make them rush through the tasks |

| | |
|---|--|
| | Due to my subject knowledge, I was unable to answer the question adequately |
| Analysis linked to wider pedagogical practice or use of educational terminology – Action plan | <p>I would also make use of the collaborative seating style to allow a quick discussion and maybe brainstorm some aspects</p> <p>If any students in the classroom do not work well together and distract each other, I would put them in separate groups</p> <p>Feedback for them would have been useful as answers would also have been assessed for spelling, grammar and sentence structure to help them to develop literacy skills</p> |
| Reflective comments about the use of video or the video annotation software | <p>This exercise has been useful as I feel better about my presentation after watching it back</p> <p>I cannot hear it clearly on the video but based on my subsequent reaction, I could tell that I had been asked a difficult question</p> <p>This way shows you things that you were not aware of</p> <p>Gave me an insight into what I look like and speak like</p> |

With the addition of a category relating to reflections about the use of the video or the annotation tool specifically, I felt that this coding was a much better fit for my data. In retrospect, I have spent some time in coding and recoding my data, and in the end, I have not used the coding categories, as I did not feel that they were helpful or added to the analysis. The advantage has been that I have revisited my data several times, becoming more familiar with it and seeing patterns emerge each time I have revisited and explored the data. Although I spent time on this activity and subsequently discounted the numerical analysis, the process was valuable,

strengthening my decision to move away from the numbers, using a template that didn't fit my research method, towards a confident presentation the data that suited the method and the data set well, informing the reader of the 'story' of the developing reflections of this group of participants.

Chapter 5: Discussion

As expected, the participants reflective comments developed throughout their training, increasingly demonstrating their ability to make links between their practice and pedagogical practice such as pupil-led learning, planning for grouping, competition and engagement, pace and effective use of class time, wider skills such as attention to literacy and importantly, certainly for this group of trainee teachers, the pedagogy of teaching science. The development of academic and educational terminology during the training period supported the reflections that the participants were making, so the move from colloquial language to educationally rich language was evident.

One of the rewarding aspects of conducting this research has been witnessing the development of active reflection through a medium that I had not previously used as an embedded tool within my teaching. Gaudin and Chalies (2015) described the process of video viewing as active, rather than passive. They went on to introduce the term 'selective attention' (2015:45) and linked this to knowledge-based reasoning as interrelated processes which they termed 'circular interplay'. I quite like the way that this corresponds with my coding as well as the nature of the action research method I have adopted in carrying out this research. The cyclical nature of this research and reflection more generally seem to complement each other nicely. Concerning reflective comments relating to the use of video and the annotation software, in particular, Somekh and Lewin (2011) commented that 'focussed discussions of video clips are almost always extremely productive in helping everyone involved to 'see' more' (Somekh and Lewin, 2011: 134). The identification of classroom events in several of the studies discussed by Gaudin and Chalies (2015) in their literature review was important, linking as they did to selective attention and teachers who were training developing their ability to focus on the students, as well as teacher activity. This development is reflected in my findings too.

Reflective comments were also written as part of the participant's paperwork, using their e-portfolio, during the training period. There was, however, a difference between the types of comments captured via the annotation software and the e-portfolio documentation, in particular relating to the emotional aspects of reflective practice, which I have described in chapter 4 as confessions (Moon, 2004).

Reflective comments that have been captured as part of this research project have contributed to my richer and deeper understanding of the development of reflective practice during the ITT programme and this method of collecting reflective comments has facilitated the answering of the key questions for this research project. These comments may not have been captured via another medium and there is scope for future work to explore this further, considering the whole range of opportunities for reflection and the impact on future practice for me in my role and my wider team. Many of the positive reflective comments and responses to focus group questions echoed comments from previous researchers in this field who noted perceived beneficial effects (Wu and Kao, 2008 and Gardner and McNally, 1995). The latter said that participants wholeheartedly supported the use of video to support reflection (Gardner and McNally, 1995). I would say that this represented the views of my group of participants for this research study. In terms of suggested improvements linked to the use of this technology, it was noted that multiple cameras would be good (360 cameras are a possibility and are used in some schools, but the licences are more expensive and it was not felt to be viable for this trial). Participants also mentioned that the audio was sometimes better than the video and it is a fair criticism, based on the placement of the iPad camera in the room, which could not capture all of the activity.

Concerning the development of reflective practice, I mentioned a participant who noted the link between the use of the software and Schon's (1987) work on reflection in and on-action. This brought to mind McFadden *et al* (2014) who highlighted the importance of combining video annotation software with reflection models to stimulate higher-order analysis and reflection on action. I am pleased that I decided to include the reflective workshop as part of the training for this group of participants, as I felt that it would benefit all trainees and was ethically sound, supporting frameworks for reflection using this tool as well as paper-based tools.

The first focus group discussion highlighted some misunderstandings around the differences between reflection and evaluation. In setting up reflective comments, I probably assumed that the understanding levels were higher and that there were fewer interchangeable use of the words than there were. This was only picked up in the first focus group in October, after the first cycle of data collection, rather late in the research activity. It did allow the opportunity to discuss the terms however and some excellent outcomes, as a result, e.g. "reflection requires a deeper level of

thought process and self-awareness, evaluation happens more quickly and is more superficial” and “if you reflect, you will most likely change things” which for me is one of the most powerful statements to come from this research study. On the downside, the time given to the first activity may have lent itself to superficial reflection, although the lack of educational terminology may also have played a part. I shall consider this in my future practice and adapt the teaching session to include definitions of key terms, assessing prior levels of understanding and highlighting misconceptions.

The action research method facilitated the flexibility that I needed in making changes to the focus and nature of the cycles through the project. On the downside, this flexibility may have hindered activity and reduced the number of cycles of reflection, as I was able to adapt and reduce the number, omitting cycle 3 reflections during the project. This option would not have been available to me with an alternative method and if I had chosen a less flexible approach, I would have collected more data. In the case of my research project, I feel that the rationale for removing the last cycle of reflections was justified, but there is no doubt that these would have provided further, richer data leading to more secure analysis and conclusions based on practice over a longer time. If I were to repeat this study, I would find a way to include this final round of reflection using the annotation software, especially as I had already taken the time to collect the cycle 3 microteaching videos. Due to the change of focus and the way that cycle 1 was managed compared to cycle 2, it was more difficult to make direct comparisons across the data sets. In cycle 1 the participants reflected individually, whereas in cycle 2 the reflections were collaborative. Whilst much of the existing research values collaborative aspects of reflective practice, it is difficult in this study to track the development of individuals, so I have chosen to discuss the development of reflective practice more generally. Overall though, I am pleased that I adopted an action research approach and I feel that the length of time over which I have collected my data, over seven months, gives good coverage of the training, which finishes in June.

My self-awareness and developing ability to reflect critically, leading to more explicitly modelling reflective practice and link to reflection models as part of my teaching have been key. I now include focussed feedback on trainee’s weekly reflections and suggestions for models and strategies to improve written reflections as part of my everyday work and I feel that the impact of this is more highly focussed

reflections with my students, captured in this research via the annotation software. I am self-critical and make regular changes to my practice and my planning and a deeper understanding of reflective practice has helped me to evaluate and improve my work critically. Revisiting Brookfield's four lenses has helped me to develop my reflective practice as I have carried out this research, not least because I have used the video and annotation software several times myself.

In writing critically during the final stages of this project, returning to Brookfield's scholarship lens, something that resonates is 'educational literature can help us understand better what we already do and think' (Brookfield, 1995:185). I like the way that Brookfield (p 193) described us all as both theorists and practitioners, rather than one or the other, and this suits my position as a work-based researcher.

Brookfield cautions against experiential learning using the 'self' lens only, arguing that it is through engagement with the literature on learning that 'mislearning' will be avoided, because it provides the 'critical check' required. Finally, I have encouraged other colleagues to start to use the annotation software as part of a pilot this academic year using video and video annotation for appraisal. We all teach at the same time each week, making it difficult to observe each other's practice. Using technology in this way has the potential to save time and money, but is also very challenging personally. It is a different approach and is in lots of ways a difficult hurdle to overcome, filming oneself teach and sharing with expert colleagues, especially when flaws are evident. I have filmed myself teach far more this year and, although I wouldn't say that I have enjoyed it, I feel that it has helped to further develop my practice and my empathy for the trainees with whom I work. As Brookfield said 'radically oriented teacher educators must serve as living examples of the very kind of critically oriented pedagogic practices they seek to have their students adopt. Put simply, critical teachers must be seen to be critical learners too' (Brookfield, 1995:206).

Chapter 6: Conclusions and Recommendations

How does reflective practice develop as participants train to teach?

During their training period, participants' reflective comments developed in complexity, depth and the use of educational terminology. Over time, participants were less likely to comment on teacher-focussed activity such as speech, body language, and written objectives on PowerPoint slides and moved more towards deeper reflections linking, in particular, to wider pedagogical practices and their future intentions concerning pedagogy. Examples of reflective comments made, following cycle 1 and cycle 2, are highlighted in Chapter 4, illustrating this development. The reflective comments in full can be found in Appendices 5 and 7. Reflective practice developed in terms of commenting more deeply on the scientific subject knowledge for this particular group of participants, who are training to teach secondary science. Reflections also demonstrated a greater level of understanding of the links between science subject content and the pedagogical choices being made. This was anticipated, in part because of the design of the research where the focus for the second cycle of microteaching was focussed on specific subject content. It is a key finding for this group of participants and perhaps for secondary science trainee teachers in other institutions.

Another outcome was the linking to future practice and more complete 'full circle' reflection was evident later in the training than earlier. The findings from this study are limited, as the reflections are based on microteaching episodes that took place in the University setting, which could be seen as being artificial in comparison to the school-based setting they will be experiencing as teachers. I do feel, though, that the participants used the skills that they were learning in the 'real' classroom setting and applying them in the 'artificial' setting of University in some ways. Perhaps a future study could focus on practice in a school setting, although much of the existing literature does do this.

How does self-assessment of microteaching develop skills of reflection?

Self-assessment using videos of microteaching did, in my opinion, help to develop the skills of reflection with these trainee teacher participants as they trained. In contrast to any anticipated potential negative aspects of using this particular method of self-assessment, the comments from participants were overwhelmingly positive.

The use of self-assessment or self-reflection, following the first cycle of microteaching provided an excellent opportunity for the participants to practice their self-assessment in a safe environment at University, with no pressure to complete a certain amount of writing, no prescription for a style of writing which may not have suited all participants, and using secure software that would not be shared with anyone but them without express permission. Opportunities to self-assess for those participants who chose to do so were available in cycle 2 through the use of their IRIS accounts, where they were able to view their video at their leisure and reflect further, should they wish to do so.

How does peer-assessment of microteaching develop skills of reflection?

Peer-assessment of microteaching episodes supported the development of the skills of reflection as these trainee teachers trained. The request from the participants to incorporate peer-peer work into cycle 2 was helpful and the reflective comments after this cycle notably demonstrated some deeper thinking, in line with expectations. The request to include peer-assessment opportunities in cycle 2, afforded by the action research method chosen for this study, may be seen as evidence of developing skills of reflective practice for these participants in itself. Collaborative cycle 2 comments related far more often to educational terminology and future practice identified links to the Teachers Standards.

It was interesting to note that cycle 2 reflections focussed more on student activity and learning, together with an emphasis on the use of questioning linked to assessment. These skills may already have been developed at this stage because of a wide range of other factors influencing the training, but may not necessarily have been captured had it not been for the use of the video annotation software. It would be worth comparing this approach with the reflective skills and comments made using the more traditional e-portfolio used alongside this approach and by other members of the team. There is scope, I feel, for a future study to explore this further. Peer-assessment and collaborative work ties in closely with my own experience in working as part of a team and the suggestion from the participants of this project to include elements of collaborative practice in cycle 2 is in line with what we would expect from postgraduate trainee teachers on a professional course, such as this. There is a recent move, in the secondary sector, to have some dedicated drop-down

time in the school day for collaborative practice such as planning. It would be interesting to explore the links between reflective practice and peer-peer collaborative practice either for trainee teachers entering the profession or across the sector more generally, perhaps.

What are trainees' perceptions relating to the use of software in supporting reflection?

The participants' perceptions of using this technology were overwhelmingly positive. It may be worth exploring whether this is, in part, due to their familiarity with the use of technology in everyday life. It may also be attributed to their developing skills as reflective practitioners as they trained. From my perspective, it made capturing the reflective comments straightforward and saved multitasking in focus groups, as notetaking was not required. It was a concern at the design stage that the use of video during the early stages of training, in particular, could be threatening, but the responses of the participants were almost all positive and there were many comments relating to the opportunity to see themselves on video at this early stage as being beneficial and helpful, which supports references made to the wider literature in Chapter 2. This may be due, in part, to the positive outlook regarding the use of video for those trainees who chose to participate in the study. Those trainees on the course who chose not to participate in the project may have done so precisely because they found the prospect threatening. All of the participants in the group completed the activity as part of the teaching and learning on this course, however. Only the data from the consenting participants have been included.

What potential positive impact can this approach have on my practice and the practice of others?

As stated above, this may be a way to capture reflective comments that would not ordinarily be captured via other means and it certainly helped in collating and revisiting the data from my perspective as a work-based researcher. It would need to be more accessible, however, and there is potential, I feel, for a study exploring the use of Kaltura (our in-house video capture software).

Overall I feel that this was a worthwhile study, as it has allowed me to trial the use of this technology and consider how it may best be used. I think that the time it takes in addition to an already very demanding course is prohibitive for both the researcher and the participants and so I am loathe to suggest wider use across the rest of the team before I have fully considered the benefits of this approach vs some other approaches. In particular I would like to explore the comparative development of reflective practice through the use of pre-existing systems, such as the e-portfolio in use at my institution. If this software or something similar were an alternative to something that we have already in place, then it may have greater value. My study begins to suggest that capturing reflective practice in this way adds to what is currently available but further work will provide further data.

My reflective practice and understanding about reflection and its importance in training to teach have developed enormously during the planning, data gathering and analysis and writing stages of this project. I have already made important changes to my practice as a result of this and I have had an impact on the practice of my team too, through the introduction of teaching sessions to focus on reflection and the use of reflective models to inform practice. I think that there is scope to improve and develop my teaching sessions and to encourage wider use of this approach across the secondary team.

I would like to take some time to explore the possibilities of further research so that developments to the teaching and learning programme that we offer can be well informed and aim to make the best use of the research time and energy.

Conversations with my colleagues may also help to inform the direction of future work in this area.

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Appendix 2 – Student Consent Form



Exploring the development of reflective practice with trainee teachers, using video annotation software.

Information Sheet for participants

What is the purpose of the study?

This research project, to be conducted during the 2018-19 academic year, aims to explore the reflection that takes place following microteaching, the filming of which already is a staple part of the teacher training programme at Middlesex University. This particular project aims to explore whether video annotation helps student teachers to reflect on their practice in different ways.

Why am I being asked to take part?

As a trainee teacher at Middlesex University, you are being asked to take part in order to aid the researcher in further developing knowledge and understanding about the use of video annotation tools in initial teacher training and developing reflective practice.

Do I have to take part?

Everyone in the cohort will be involved in filming microteaching, but it's up to you to decide whether or not to take part in the research. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time and without giving a reason.

Whilst choosing to take part in this research project may help with your self-assessment, self-analysis and reflective capacity, the data collected from your microteaching videos and the interview data will be anonymised and used only for the purposes of the research and not to inform assessment grading decision about your teacher training.

What will happen to me if I take part?

If you agree to participate, you will grant the researcher access to your online video and annotations. You will also agree to your contributions to the class debrief being recorded and to participate in future focus groups to further explore reflections.

What are the possible benefits of taking part?

Participation will allow you to engage in a piece of research which may benefit your training and practice, progress and potential to develop your skills of reflection throughout your teacher training course.

What are the possible risks of taking part?

It will require you to give up some time (if you agree to participate in the additional focus groups). Your comments may be used in publications or journal articles, but because they are anonymized readers will not be able to identify you as a participant.

Will what I say in this study be kept confidential?

All information collected about you will be kept strictly confidential (subject to legal limitations). The recordings, annotations and transcripts will be held securely and you will be assigned a pseudonym in the transcript and any subsequent published work including published papers and theses.

What should I do if I want to take part?

If you wish to take part please read this document and complete the consent form below.

What will happen to the results of the study?

The results of this study will be anonymised, analysed and shared through the publication of an MProf (Education) thesis. The results of this study, anonymised, may also be used as part of a future thesis. The data collected will be kept for 5 years and may appear in journal articles, books or other publications. To obtain a copy of any publications please e-mail k.parks@mdx.ac.uk

Who is organising and funding the research?

The research is being undertaken by Karen Parks, Senior Lecturer at Middlesex University.

Contact for Further Information

If you have any concerns about the way the research is being conducted please contact Lee Jerome l.jerome@mdx.ac.uk or Victoria Brook v.brook@mdx.ac.uk.

Thank you for taking the time to read this form



Student Record of Consent Form

Research project title: Exploring the development of reflective practice with trainee teachers, using video annotation software.

Researcher: Karen Parks (k.parks@mdx.ac.uk), Senior Lecturer in Secondary Teacher Education, Middlesex University, NW4 4BT

Please read the statements below and, if you agree to the conditions, sign at the bottom of the form to indicate your consent.

I confirm that I have read and understand the information sheet for the above study and have had the opportunity to ask questions.

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving reason.

I agree to take part in the above study.

I agree that my data gathered in this study may be stored (after it has been anonymised) and may be used in a thesis, journal articles or other publications. I agree that the data may also be used in presentations to other teachers and researchers.

I agree to:

1. Share the microteaching video annotations and video
2. Have my participation to class discussions about microteaching recorded
3. Participate in focus groups

I agree to the use of anonymised quotes in publications.

| Name of Participant | Date | Signature |
|---------------------|------------|--------------------|
| KAREN PARKS | 20/09/2018 | <i>Karen Parks</i> |
| Name of Researcher | Date | Signature |

Appendix 3 – IRIS Connect Funding Grant Approval

Education Department – Research and Knowledge Exchange Grant Application 2017/2018

Please complete all sections and allow the boxes to expand as necessary. All applications must be word processed and emailed to Debbie Jack (d.jack@mdx.ac.uk). Please note that whilst we have more funding than we had last year it is likely that some applications will only be part funded. Applications for activities that do not lead to published outputs are unlikely to be funded at all so please be explicit about this in your application, particularly if you are intending to publish a high quality journal article following a conference presentation.

Conference attendance only grant applications will not be approved. The first deadline for applications will be 15th January 2018. After that, you may send an application in at any time but obviously it is possible that the money may have all been allocated the later you leave it.

Name of applicant: Karen Parks

Date of application: 15th December 2017

Total amount of grant applied for: £1500

Describe the activity making it clear which area it falls into (e.g. KT project, research project, conference paper presentation)

My research project aims to explore the development of reflective practice with trainee teachers during the 2018/19 academic year, using video annotation software. The free video annotation software that I am currently using is rather unwieldy. Far better would be a year-long license with IRIS Connect (which is the favoured software of many of our partnership schools, incidentally) which would provide a platform that supported this research far more readily as it is fit for purpose.

With the license, the participants and I could access the software platform readily, without having to download and login to software. Most importantly though, is the ability for participants and myself to hold these videos on a very secure platform, with no need to set up high levels of security and privacy each time, as is currently needed with the free software.

I intend to film microteaching sessions at three points during the year with a group of (around 20) trainee teachers and use the software to record the reflections through self-assessment and peer-assessment with these trainee teachers.

Provide details of the activity including relevant dates and locations as appropriate

The data collection will take place at three key points of the academic year, September 2018, January 2019 and June 2019. This will be on site at Middlesex University, Hendon Campus.

The quoted cost of the licence for 2017/18 was £1358 (I was not able to fund this for the pilot study, so am using the free software currently), so I estimate around £1500 for 2018/19. I am given to understand by my contact at IRIS Connect, that this would be a realistic figure, for the limited access and hardware that we require for this study.

The licence would run for the 2018/19 academic year.

Current status of the activity (commissioned, contracted, accepted, invited, speculative, etc.)

I have finished my research proposal and am due to submit this in February 2018 which comprises the module IPL4016 for my MProf research degree. Feedback from my supervisors and the programme leaders has been very positive and I expect that my proposal will be approved in March/April 2018.

I am currently carrying out a pilot study, so that I am in a good position to collect the data in 2018/19. IRIS Connect are keen to establish links with HE providers, using their software platform and are supportive of this field of research.

| | |
|--|--|
| What will the 'outputs' of your activity be? | |
| <ol style="list-style-type: none"> 1. Successful MA research (personal benefit) – August 2019 2. Seminar paper for Middlesex colleagues as part of PEP SIGN at end of year (internal dissemination) - September 2019 3. TEAN conference paper after that (external dissemination and networking) – May 2020 4. Journal article (explore <i>British Journal of Educational Technology</i>, <i>Journal of Technology and Teacher Education</i> or <i>Technology, Pedagogy and Education</i>) – June/July 2020 | |
| What will be the impact of your activity? | |
| <p>Impact on my practice - further developing my skills in using this software as a tool for recording reflective practice. Possibilities for using this as an in-house tool within the ITT team can also be explored.</p> <p>Impact on the participants - likely to be positive. Much of the published research highlights the benefits for trainees of engaging with this type of tool to develop their reflective practice as they train. They are likely to experience positive benefits from participating in this study and they will be familiar with the software when they go into schools as NQTs, as quite a few of our partnership schools use this platform. This makes them more marketable as recruits to schools and is a USP for the trainees and for Middlesex, for example when we are inspected.</p> <p>Impact on the wider team - sharing my research and findings through the year with the Secondary PGCE and SD team, who can benefit from any potential early findings and explore the use of this annotation platform for use in their own practice.</p> <p>Impact at my institution - links with providers such as IRIS Connect are going to be beneficial in the future if the technology becomes more widely used and available in schools, as seems likely.</p> <p>Publication of articles relating to this research should lend credibility to both partners (as outlined in 'outputs' section above.</p> | |
| Breakdown of all costs for this application | £1500 for the licence for IRIS Connect for 2018/19 |
| Conference Fees | N/A |
| Flights | N/A |
| Train Fares | N/A |
| Other Travel costs | N/A |
| Accommodation (Please note only in exceptional circumstances will the night before and/or the night after be paid for) | N/A |

| | |
|---|-----|
| Other costs (please create a new row for each separate item) | N/A |
|---|-----|

Appendix 4 – Focus Group 1 Questions

22nd October 2018

1. What are your views on the reflection activity, using IRIS Connect software?
2. What do you think may have been the main issues identified in the reflections at this stage of training?
3. What level of reflection do you think may have been written at this stage?
4. What are the pros and cons of this activity vs. paper based exercises for reflection?
5. How does reflection differ from evaluation, do you think?
6. How does this activity tie in with the reflection session on the first Friday of induction week (where reflective models were explored)?
7. Next time
 - a. What would help to improve this activity?
 - b. Should more guidance be given?
 - c. What would your views be on peer-peer work during the second round?
8. Any other points you would like to raise?

Appendix 5 – Cycle 1 Reflective Comments (Individual)

AA Cycle 1

At the beginning I asked a question to the students and whilst they were discussing I like that I moved around to listen to their input. I also liked that I called out a student by their name. I like that I gave a bit of humour and students responded by laughing. Perhaps when I was showing the props I should've moved around the class as the back people weren't able to see, however I did give them the props to have a look at the end. Also at the end I should've said an ending message like "ok thank you for listening" etc.

BB Cycle 1

Speak louder. More pictures/interactive.

CC Cycle 1

No learning objectives, didn't identify students who already may be familiar with the topic. Clear instructions as to what to do with a wound as well as how to dress a basic cut. Demonstration was clear, needs to be more engaging, as well as props for students to have a look at. Identified well that students may not have the necessary components required so provided alternative solutions if an incident should happen. At the end there was no way of knowing if students understood the session, no Q&A and there was no activity to assess their own learning. Didn't utilize the full time given, next time add activities in order to assess and time constraints are met. Need to work on time management.

DD Cycle 1

Needed to be a bit clearer and precise with my questions to direct them along the right lines. A fair amount of 'umming' and 'ahhing', a lot more than I thought I had done straight after the presentation. Didn't utilise the space, remained in one place throughout. Didn't let KS know that his first answer was a good point to make even if it wasn't the answer I was looking for. This is probably because I was rushing to make my next point due to the time constraints. Was more concentrated on getting through the presentation than his contribution to the lesson. Voice well projected but some stuttering, would like to avoid this as it may confuse pupils if explanations aren't delivered as clearly. At the beginning I could've asked for a show of hands rather than allowing everyone to shout out answers so I can hear all of them.

EE Cycle 1

After presenting I initially thought there was many more aspects of the presentation I could improve on. I initially thought I could have been a bit clearer, not focused on the screen as much and made it more engaging. I'm usually very self-critical and will always focus on the negatives and find ways in which to improve, watching the presentation back, I find it was better than I had visualised in my mind. I faced the crowd more than I had thought and expressed the presentation reasonably clearly. I did not review the presentation slides before the presentation and the last time I had looked at them was a week earlier upon creation, this led me to start introducing a slide I had deleted (I know as scientists we are quite sceptical...) and reviewing the slides before the presentation would have definitely helped with delivery. I did not review them at the time because I was ill that morning and was a little anxious about the presentation, I think more practice is needed to improve confidence and I believe watching presentations back and more preparation will help. This exercise has been useful as I feel better about my presentation after watching it back and will help with my confidence within my presenting skills.

FF Cycle 1

I asked if anybody had experience with origami before at the beginning of the lesson. This is because I wanted to get an idea of how the Lesson will go. I set clear instructions at the beginning of the lesson and everyone got on with the task that I set out for them. I think the lesson went well because the class was engaging and focusing on doing the origami as I observed when I walked around the classroom. I saw that some pupils were helping the person next to them and others were trying hard to complete the task before the set time. This showed that they were enthusiastic and keen on completing the work and this was what I wanted them to do. Many if not all managed to complete the task as they showed me or put their origami up. However I would have liked to have had a PowerPoint presentation with visuals and bullet points whilst I was explaining why I asked them to do origami. I could have also explained in a bit more detail the educational benefits of origami so that they understood the purpose of doing origami and try to implement that in their future lessons. I could have walked around the class whilst talking to ensure everybody could hear me and not look down on my notes while talking. This is because I do not look as confident whilst talking in front of the class. I will make sure

that I more prepared with my knowledge so that I appear more confident when talking.

GG Cycle 1

On my planning I should have considered the intervention of learners the time limit was 5 minutes and I exceeded that time limit. I should have given an assessment to my learners to assess their knowledge at the end of the lessons. I should probably move less around across the screen that may disturb the audience and use less hand gestures. Starting with the question was a great idea to encourage my learners to participate and to challenge them. Referring to members of my audience when pronouncing religious name so that they do not get offended if I commit any errors.

HH Cycle 1

Upon watching my presentation, I felt it was well-structured and concise - I am well pleased that I was able to deliver all of the information I had gathered in the set amount of time. I feel like my audience were well engaged as they were able to answer questions I had posed them, meaning they were interested in what I had to say and they were able to retain information. I did notice I made a mistake in saying that my country, Nigeria was coming towards its 59th year or independence as opposed to its 58th - this was probably due to nerves. However I did mention that independence was gained in 1960, so those who may have picked up on my mistake may have realised I meant to say 58th instead of 59th. To improve, I feel like I could have projected my voice more or maybe involved more collective involvement. For example, I could've asked my audience to repeat the name of the ethnic groups I had told them about to ensure they can pronounce them. I also feel that I could've walked around the room more to appear to be more enthusiastic. Going forward, I would try and utilise my classroom space more to maintain my audience's attention and ensure I deliver accurate information.

II Cycle 1

I should have learning objectives on my PowerPoint. I could have used more images in my presentation, to relay my information more clearly. I sound very anxious when I am talking as well which effected the way the presentation was performed. I also need to engage with the classroom more and set out targets for the class to achieve. The pace of my presentation was too fast at times this was due to being anxious when performing my presentation. Projection of my voice needs to be clearer when delivering a micro-teach as listening to description can be difficult to understand

when you are not clear. Transitioning through slides could also be improved as there were delays in the presentation, further practice of micro teaching is needed to resolve this problem. I was too static in my delivery, I could move around in the class more to be more engaging. I answered the questions well and clearly, but there is still further improvements to be made

JJ Cycle 1

Good use of tone voice - increasing the voice at certain longings of the presentation keeps the audience awake. Starting the presentation with questions is good as you engage the audience in the beginning and it's like a mini introduction to the presentation. It's good to walk around the class room, as this shows the audience that you are comfortable in the room and with the presentation. Good eye contact with the audience. Assessing the knowledge of the audience by asking questions is good - this shows if the audience can follow the presentation. At this point I think I shouldn't have jumped one of the schools - I should have carried in with the order. This is because maybe for someone who doesn't know Germany's system it got more confusing. Transitioning from one slide to the other I should have done better maybe by asking question or something different.

KK Cycle 1

Upon reflection I did not structure the presentation so that the class had actually learnt something. I had objectives, but I didn't achieve the learning outcome. I think if I focused on one thing in that limited time I would have got a better outcome. My body language was very one sided. My language was too informal for the class. I approached individuals a little bit aggressive and I spent a lot of time looking at the board and that is why is missed some individuals with questions and responses. I was very one sided in the classroom and isolated the left a bit.

LL Cycle 1

I believe my speech flowed quite well, the pace was okay for the audience to follow. Also, my tone changed through my presentation which is good because it was not monotone and delivered in a boring manner. My visuals could have been clearer. I would improve this by looking at my images once more and making sure it's visible. I started my presentation by introducing the topic. I would improve my introduction by using an interesting technique to engage the audience, this could be asking people a question 'Raise your hand if you love coffee' or using humour to catch their attention straight away. This is particularly important when teaching teenagers who may have

just come from break and are still continuing their conversations. In the future, I would engage the audience more by using props or a short interesting clip. I would also make use of the collaborative seating style to allow a quick discussion to maybe brainstorm some aspects of the coffee. I would also use my space better, walking around to make sure everyone is listening and engaged. I think movement allows people in the audience to engage more in case they are dozing off.

MM Cycle 1

To begin with, my tone of voice provides clarity but then I think my confidence falls and it drops. To start my presentations I should have used objectives so my audience are clear of what structure my presentation will take. However, I will ensure this is in my next presentation. There also is a lack of activity of engaging my audience as much as I want to keep them drawn in. There are moments in which I could use more eye contact to draw the attention of my audience. Which next time I will ensure to do by talking slower and observing my environment. On the flip side, I have used humour to keep the flow of presentation. There's not a real flow on the information that I am presenting to my audience. Moving forward in the future I think my presentation needs to be better planned, outline objectives and a summary to wrap up my presentation and also deliver information in a strategic manner so the audience can obtain what is being said.

NN Cycle 1

I believe my presentation was delivered confidently and I have used good body language and eye contact to get my message across to the audience. To improve, I would avoid reading from the slides and reduce using the word, "em". Finally, I should ensure that I finish my presentation on time and meet the five minute benchmark. Overall, the presentation was successful as the audience was engaged and interactive, however there are small rooms for improvement such as asking questions to students that did not participate.

OO Cycle 1

I am so glad that I watched this video! I was really being harsh on myself when I was reflecting on my micro teaching lesson, for having run out of time and not being able to deliver the whole session. Having watched the video, I'm really pleased with how I engaged with the class, used humour, got their attention and I saw that they showed an interest in what I was teaching them. Having said that I will be implementing

changes to the way I organise practical's in order to make sure that I don't run out of time again.

PP Cycle 1

I should have added an initial slide on the learning objectives of the presentation but it was mentioned at the start. Encouraged participation through use of questions.

Use of facts on each image would have useful to add a brief quiz at the end of the presentation. Quiz or brief set of questions would have assessed how well the information was received as well as the amount of detail provided in the presentation.

Appendix 6 – Focus Group Responses

Focus Group Cycle 1

Views on activity and using software.

Good, discreet, better than someone holding a camera, quite natural in terms of nerves as we were already nervous, a chance to look over microteaching, looking at our own presentation was good, multiple cameras would be good. Took me out of my comfort zone but it gave me an insight into what I look like and speak like. When I did the presentation I felt that the class wasn't engaged but when I saw the video I thought that they were. When I watched myself I felt it was productive, I looked at what I actually did. You pick up on a lot more when you look at the video (than looking back at the presentation). You are more critical on yourself, more likely to make changes quicker, e.g. change bad habits.

Main issues identified

Pace, whether the audience was engaged, body language, voice projection, hand movement, speaking too slowly, subject knowledge and replying to questions, eye contact and engagement with audience. Levels of reflection at this stage probably quite basic, we have learned a lot since then looking at different models etc., we probably didn't look for reasons why we did things. Instead of identifying why we did things, we may have identified what we did and say we wanted to change it. The time lent itself to surface level reflection, rather than more time to reflect more deeply.

Pros and cons vs paper based reflections

Less likely to miss out stuff, on 'remembering' you may focus on what you didn't enjoy and you will be more likely to be negative. Paper based activity more thought through, less of a thought process in this way of doing reflection. This way shows you things you were not aware of, you may see things that were happening, you were saying, the way the pupils were behaving, gives you a different perspective. Some guidance and feedback from someone else would be helpful, so that we know how it went. An external view could be useful. Links to tips on how to improve would be valuable.

How do you think reflection differs from evaluation?

Evaluation builds on reflection. Reflection is more like how can you improve, but evaluation is more what you did. We thought the opposite, evaluation is what you can do to improve. Reflection requires a deeper level of thought process and self-awareness, evaluation happens quickly and is more superficial, if you reflect you will most likely change things. When I see the word reflection, I think more about what I did, evaluation I think about the lesson as a whole, reflection is more personal.

How does this way tie in with reflective models (written?)

When we wrote, we didn't use any of the models, I didn't think about the models in reflecting on my video, instructions before the reflection on the video would have helped, when I was seeing what I did it made me think of reflection in action and reflection on action.

What would make it better next time?

Restrictions on timing are needed, a structure for presenting beforehand may be helpful, watching my video in my own time would be useful, 5 minutes is not enough, you can't look at longevity or complexity in 5 minutes, co-presentations may work well with more time.

Should more guidance be given?

Some people spent a lot of time preparing, some didn't spend any time, I liked the openness of it as it lent creative approaches, time preparing is down to the individual

What would your views on peer to peer work be for the next round?

Constructive, as long as there is a focus I think it's good, if you had your input as well that would be better, we are all seeing each other anyway, so others' feedback would be useful, we should use this more and I picked up on things I wouldn't have otherwise, rolling it out into schools would be good.

Appendix 7 – Cycle 2 Reflective Comments (Peer groups of 2-3 students)

Group 1 Cycle 2

We all agree that our presentation went to plan. We modelled the question as a class before we gave them the questions to tackle, this ensured that the student's understood what they had to do. The activity was very engaging as the students were very competitive. All the students were on task, however, there was one group who were stuck on the first questions this was because they were not paying attention to instructions at the beginning. We could've stayed on that table to help these students out I guess, but as more and more students were calling out finished we had to attend to them. We feel as though this task was successful, as we managed to cover our learning objectives established from the start. If we were to do this again I suggest that we have students come up to us instead so it's easier to identify students who were struggling with the task. Speak clearly and provide extensions that continue to challenge the rest of the class as well as working more collaboratively as a group when doing the activity as it was quite competitive between the groups.

Group 2 Cycle 2

The idea was to create a pupil led exercise to help with the cohort's biology knowledge regarding culturing microorganisms, the exercise helped peers think of answers to the questions drawing on knowledge and working in groups with at least 1 biologist to share knowledge. The student that knew the answer would teach the others and this would have been an efficient way to cover a topic in a short space of time in an engaging way. During the planning of the exercise I felt confident in the plan and idea but during the delivery there were a few issues that surfaced that would have been easier to tackle if they had been anticipated. There should have been more time left to go through answers especially for the more difficult questions, I made an attempt to do this but it was after the 15 minute slot and should have been accounted for. There also should have been a more consistent way to measure each student's ability and not just the knowledge of the group member bringing up the answers. I explained I would be checking the understanding of all group members which I did at times but was logistically more difficult than expected. Overall I feel it was reasonably successful but there was no consistent measure on every student's

ability. The 6 marker question at the end should have been peer marked and more emphasis put on explaining questions in the future.

I think with this type of activity it is vital to give very clear instruction from the start and set boundaries of expectations of the class. A lot of movement around the room is involved so I thought it would be very important to set rules as to where each group should be directed and that only 1 from each group should be going to collect their next question from one of us. This was to prevent a chaotic environment with a lot of them running around the room which could easily occur in the normal classroom environment. For the purpose of ensuring safety of the participants I made sure to make this clear. If I was to do this sort of activity with one of my classes I would probably pre-select the groups in order to save time and also to ensure that the behaviour of the students will be easier to manage. If there were any students in the class who do not work well together and often distract each other I would make sure to put them in separate groups. The type of questions involved were a mixture of MCQ and longer written answers to ensure that all participants contributed. They had to decide together on an answer for the group questions but then also for the longer written question each of them had to apply the knowledge of the topic to write a summative method of how to culture microorganisms. This ensures that all of the work isn't left to just one person in the group and making them aware that they have to answer a question individually at the end will encourage them to pay attention during the activity. By creating competition amongst them, most were more determined to engage in the activity however this can also make them rush through the tasks in order to finish quicker which in hindsight can decrease the quality of learning. With more time we could have had incorporated a way of assessing their overall comprehension of the topic as we were not able to check everyone's written answers. Feedback for these would also be useful for them as the answers would have also been assessed for spelling, grammar and sentence structure to help them develop literacy skills.

Group 3 Cycle 2

Clear instructions and expectations were set from the beginning and students were encouraged to participate. Sufficient modelling and explanations were given though the opportunities for self-deduction was given. It would have been useful to have some hand-outs for filling in.

There came a point where I was asked a question (I cannot hear it clearly on the video but based on my subsequent reaction, I could tell that I had been asked a difficult question) and due to my subject knowledge, I was unable to answer adequately. I felt that I underestimated the types of questions that could be asked as I only checked the subject content on the AQA GCSE specification and nothing further. To prepare for further moments like this in my teaching career, I would check on websites such as RSC to search for commonly asked questions on this topic or misconceptions. Also, if it came to a point whereby I genuinely was unable to answer a question, I think the best action to take would be to say I do not know and then find out the answer to the question.

I started the lesson in a calm and clear tone with clear instructions about the starter task. When I asked a question the class were responsive and answered the question. I gave an example of an isotope and explained what isotopes are. This tells me that I am able to control classroom management. However, I do feel that I could have spent a little bit more time making sure that the class understood what isotopes are by giving them an example and asking them if they could identify the isotope. I managed to walk around the class and answer questions from pupils. In order to improve my teaching in the future I should focus on my questioning and to give time for pupils to think before they can answer the questions.

The lesson was an interactive lesson students were consistently targeted and questioned throughout. Students were engaged and progress is obvious through the main tasks and plenary. Students were on task and to ensure the effectiveness learners were surveyed. Unfortunately as a team we over planned and that has affected our plenary. For the plenary it would have been ideal to have an exam question to stretch and challenge students. Also the starter task could have been planned differently so that the task is slightly challenging. During the lesson it felt like there was many aspects that were positive about our session but after the presentation I personally felt that there are numerous mistakes that we could have prevented. To conclude there was many WWW and similarly EBI. In the future we need to consider the time and plan better. Tasks should be differentiated well.

Group 4 Cycle 2

The learning objectives were achieved by the end of the lesson and everyone had different strategies used throughout the time. There was a mini plenary with feedback after each part of the session. The timing of the session was over, the more challenging part of the lesson should have had more time as it is more challenging for the students to learn. We should have had a plan of going straight into the next task from the next person. The session was overall an improvement from the last micro teaching for the group. As a group we were more confident presenting the lesson content and using our individual pedagogical strategies to have a variety of learning opportunities. As a group, the lesson would have been improved if we had planned the lesson where the students had more time to learn the information and test the AFL of vaccination.

Group 5 Cycle 2

More scaffolding needed. Starting with basics and building up to drawing esters. An interactive activity would've been beneficial to the class. This could be a mix and match different alcohols + carboxylic acids giving different esters. More modelling of reactions using objects. Clearer instructions of the tasks and what is required. I felt that I could have given clearer instructions and be more animated and involved in the presentations and move around the class to help anyone who was struggling.

Group 6 Cycle 2

We delivered a revision lesson on the topic of the heart in the form of a board game. We split the topic into 4 categories, and supplied 21 questions per category. The students were tasked in taking a leading role in the activity with minimal input from the "teachers". The instructions were set out at the beginning as well as an explanation of the equipment provided. At the end of the quiz, each student should receive a personalised feedback, highlighting their strengths and weaknesses, related to each part of the topic. We have received positive feedback from the participants, praising the game to be an engaging activity, very little teacher talk and it was student led. The areas that need improvement were quoted to be: complexity of instructions, some questions lacking clarity and the amount of time that students were given. To make the activity better, we could have taken more time to explain rules, so we wouldn't need to explain them again, to individual tables. Following on the feedback received from our peers and our own reflections, we would simplify

instructions, prepare adequate number of questions for the time provided, and make questions more explicit and straightforward. Overall we feel that the session was good, engaging and student led, therefore more likely to provide a valuable impact on students' attainment and progress.

Appendix 8 – Focus Group 2 Responses

Focus group Cycle 2

General feedback, how this round compared with last round

It was good this time because we worked with other people but it would have been good to be able to focus on an out-of-specialism topic, we got to see different teaching styles and a variation of activities, better pace and more engagement, collaboration of everyone getting a chance to see what others had done later groups could share good ideas and adapting ideas. The video is good in that it captures everything. A problem is that it doesn't capture everything i.e. when a person is off-screen, some shots of the screen/PowerPoint would be good, so that we can see what the audience sees, the main thing I got from mine was the audio, I realised how much I changed my body language when it was captured on camera. Fewer, longer, better presentations and the amount of effort that has gone into the planning was noticeable and much better than round 1.

Appendix 9 – Extension Permission

