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How do teachers learn in a school-based teacher learning community?

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Education

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Declaration

This thesis, in this or any other form has not been previously submitted to the University of Sussex or any other University for a degree

Already submitted and passed:

<u>Stage</u>	<u>Module</u>	<u>Code</u>	<u>Session</u>	<u>Assessed By</u>	<u>Mark</u>	<u>Pass?</u>	<u>Credits</u>
<u>2</u>	<u>CAS Module -</u> <u>Developing Critical</u> <u>Perspectives</u>	904X2	10/11	<u>Project</u> <u>Report</u>	Pass	✓	100
<u>2</u>	<u>Research and</u> <u>Evaluation in</u> <u>Professional</u> <u>Organisations</u>	903X2	09/10	<u>Project</u> <u>Report</u>	Pass	✓	40
<u>1</u>	<u>Research and the</u> <u>Professional</u>	901X2	09/10	<u>Essay</u>	Pass	✓	30

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Professional Doctorate in Education

How do teachers learn in a school-based Teacher Learning Community?Claire BarrSUMMARY

There is a growing body of research that suggests that participating in collaborative, long-term continuing professional development (CPD) is the most effective type of CPD for teachers. An example of such CPD is a teacher learning community (TLC) where a group of teachers work together in school to discuss pedagogy and practice, observe each other in the classroom and feedback, all of this is done with the intention of improving student outcomes. This case study follows 12 teachers and their experience of a TLC over one academic year at a secondary school in south east England. The focus of the case study was to find out how teachers learn in a TLC, how the TLC contributes to their professional learning, what are the outcomes of the TLC, the essential elements plus the strengths and limitations of the TLC and finally, what elements of a TLC and teacher learning from this project might be transferable to other schools.

As an insider-researcher and member of the Senior Leadership Team, I collected qualitative data to uncover what goes on within the TLC and beyond it in order to understand how teachers learn in a TLC. The data sets consisted of ethnographic participant-observer notes, before and after interviews with five teacher participants, survey data and also interviews with teachers who had taken part in TLCs that had run in previous academic years.

Key contributions to knowledge are that teachers learnt through key processes of discussion, experimentation, reflection, and observation; the combination of these dimensions for some teachers also led to the development of metacognitive skills. Furthermore, learning in a TLC and the development of these metacognitive skills take a significant amount of time to develop. A further contribution to knowledge is that TLCs also contribute to the emotional well-being of teachers providing support and encouragement which is much needed in a wider national and international culture of accountability and performance related pay. The main barriers to learning in the TLC were generally related to a lack of time to carry out observations and engage in the related processes.

I conclude that TLCs have a positive impact on teachers and the school in a variety of ways, which leaves key decisions for Headteachers and policy makers: how can long-term collaborative CPD be supported and funded in schools and what cultural and financial shifts are required to enable all teachers to have the opportunities to participate in them.

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Chapter 1: Introduction

1.1 Introduction to thesis

This is a case study into teacher learning that took place within a school-based Teacher Learning Community (TLC) in the academic year of 2012-2013. A TLC consists of a group of teachers who meet regularly to discuss teaching ideas, they then they commit to trying out at least one idea before the next meeting; as this process is repeated over a period of time, teachers' practice adapts and changes. This TLC had an Assessment for Learning (AfL) focus and was based on a model of TLCs presented by Wiliam (2009, p.1). There were 12 teacher participants and they represented a range of subjects and years' experience in the profession. Data used in this study was generated from three main sources: firstly, interview data that came from teachers who were interviewed both before and after they participated in the TLC; secondly, observation data which consisted of notes taken by the researcher as a participant observer in the nine meetings held throughout the year and finally survey data which was as a result of a small-scale survey of all participants who had taken part in an AfL TLC over the past four years. In addition, the researcher's personal account of experiencing a TLC was also used as a data source.

Key findings were that teachers learnt a range of ideas and ways of using AfL in the classroom and in addition they learnt how to put these ideas into practice. They also reported that they had a better understanding of what AfL is and why certain strategies are more beneficial to students compared to others. Whilst these findings were largely expected as they are the aims of the TLC, further findings were less expected; TLCs can encourage teachers to develop skills of observation, discussion, reflection and feedback and for some teachers this was extended to include the development of metacognitive skills. Given the pressures and workload of the teaching profession it is argued that there needs to be further consideration and institutional planning to create opportunities for teachers to reflect, discuss, observe and develop metacognition around practice and for this to be incorporated into the workload and not seen as extra to daily activities. There would appear to be a significant focus on teaching and learning and what teachers need to improve, but not the time or resources allocated to it in order for it to impact on what teachers do in the classroom.

1.2 What is a TLC?

Professional learning communities and teacher learning communities are discussed in more detail in the review of literature, however it is useful to highlight here the key characteristics of a TLC in relation to this case study. A TLC is where a group of teachers come together on a regular basis to discuss teaching and learning ideas with the view to embedding practice in the classroom. During each meeting teachers discuss an idea or concept, perhaps pedagogy and theory behind that idea and then some possible activities to enable that idea to be put into practice. At the end of the session teachers commit to trying at least one idea in the classroom which will be observed by a peer from the group. The next meeting then commences with teachers sharing their experiences of trying out activities in the classroom and observing others.

This is a case study of a school-based TLC with the specific focus of embedding assessment for learning. The materials for the TLC originated from a pack that was acquired as a result of participation at a training event organised by the Specialist Schools and Academies Trust and hosted by the pack's authors Dylan Wiliam and Siobhan Lehey (2009). Wiliam's definition states that:

A teacher learning community [TLC] consists of a group of teachers who meet together regularly to improve teaching and learning, and this puts the responsibility onto the teachers for supporting each other as a group (Wiliam, 2009, p.1).

A key characteristic of a TLC, as Wiliam points out above, is that it is not an 'expert' model of CPD (continuing professional development), all of the teachers in the TLC are expected to contribute and support each other. It is recommended that the chair of the group is not a responsibility holder and that their role is merely to keep the group focussed and on time, rather than to provide leadership and direction. Thus it is a non-hierarchical and democratic structure in order to encourage honest reflection and discussion.

Wiliam (2010) suggests that a number of attempts at improving attainment in schools have failed and he cites a range of aspects that have been changed over the past few decades: the structure of schooling, the governance of schools, the curriculum, and an increased role for digital technology but they have had little or no impact on system-wide improvement:

I argue that the main reason that most system-wide educational reforms have failed is that they have ignored (1) the importance of teacher quality for student progress; (2)

the fact that it is highly variable; and (3) that teacher quality has differential impact on different students (Wiliam, 2010, p.1)

Wiliam presents a case for investing in teacher development and goes on to state that teacher quality is more important than class size, setting of classes and even public or private sector schooling. He claims that students taught by an excellent teacher can make twice as much progress as students taught by an average teacher and a class taught by a poor teacher will make half as much progress as an average teacher. In other words, what a class would learn in one year can be achieved in just six months if taught by an excellent teacher and that same amount would take a class two years to learn if taught by a poor teacher. Wiliam provides a strong case for how TLCs support teacher learning and why in his view this is the way forward for school improvement. In the next section I give details about the current context of policy and practice in schools to explain how these both support the need for effective teacher development such as TLCs, yet provide a difficult landscape for collaborative CPD to thrive.

1.3 Research questions

A number of research questions were designed in order to find out about the learning in the TLC:

1. How do teachers learn in an AfL-based TLC?
2. What is the contribution of the TLC to a teacher's professional learning?
3. What are the outcomes of the TLC, for the teachers and for the school?
4. What are the key essential elements of the TLC?
5. What do teachers identify as the strengths and limitations of the AfL TLC?
6. What elements of a TLC and teacher learning from this case study might be transferable to other schools?
7. What were the possible impacts of being a participant-researcher?

Question number one, how do teachers learn in a TLC is the main focus of the research and therefore a key question to ask. However I wanted to find out how a TLC contributes to a teacher's professional learning compared with other types of professional development they had undertaken. Question three was included as I wanted to find out what the outcomes were of this particular TLC for the teachers and also the school. Questions four and five were

designed to further explore which aspects of a TLC are essential and contribute to its success and therefore which aspects are not essential and can be discarded, changed or adapted either in the school in which this case-study was undertaken or in another school. This relates directly to the -penultimate question regarding how findings from this case-study could be useful for other schools who might wish to use TLCs as a model of in-school CPD. Whilst this is primarily a piece of academic research, I wanted the findings of it to be useful for colleagues in schools so that they can benefit from it. Finally, question 7 'What effect did the participant-researcher have on the TLC?', was included to ensure that explicit reference was made to the role of the researcher on the research process and that the relationship was both explored and considered at every point of the research.

1.4 The case study school

The school is situated in the South East of the UK and is a large, mixed comprehensive with approximately 1700 students on role. . The catchment area would be described as largely white and middle class. Attainment levels and behaviour are very good and the most recent OfSTED inspection graded the school as 'outstanding' for 19 of the then 21 categories.

At the time of writing, I have been at the school for nine years and I can still remember the surprise when I first started teaching there. It seemed that because the students were generally well behaved, the teaching did not need to be creative, imaginative or interactive and classes would often be working quietly, if not in silence and from text books. When I asked about staff attending in-house CPD I was told that 'they would not turn up'. Whilst it is impossible to attribute the fundamental changes that have occurred over nine years to one or two specific changes, I will attempt to summarise a few significant aspects of that passage of time, that appear to have created a culture where teachers take their CPD seriously and value CPD offered in school.

The average age of teachers has fallen by approximately 12 years during that time and I have noticed a relationship between experience and the amount of CPD undertaken by individuals in any one year; generally, the less experienced teachers engage in more CPD and the most experienced teachers engage in less. Six years prior to data collection the Assistant Headteacher in charge of CPD retired from the school having worked there for 38 years. His role was merged with another Assistant Head one, so that one person was responsible for Teaching & Learning and the CPD of all staff, plus also being the professional tutor and supporting trainee teachers from our local university partners. The Headteacher waited for this change of personnel to launch new initiatives and promote a new culture of CPD. I held

this new Assistant Headteacher position for five years, including the period of data collection for this case study. It is difficult to unpick the complexities of my impact over that time, however, I try to address this in various places throughout this report. What I am aware of is that attendance at CPD twilight sessions had dramatically risen, the number of teachers involved in TLCs has continued to increase and that the CPD budget was being stretched further so that more staff could attend a wider range of opportunities.

A significant event was in March of 2009, when I attended a CPD day in London, run by the Specialist Schools and Academies trust. The title was 'Assessment for Learning: Embedding a whole-school culture'. The day was led by Professor Dylan Wiliam, from the Institute of Education, London. He presented his research, undertaken in conjunction with a Headteacher named Siobhan Lehey and they gave a very compelling account of teacher learning communities and how they can be used as a vehicle to promote and embed the practice of AfL techniques in the classroom. A few weeks later I presented to the senior leadership team my ideas of how we could set up and run TLCs at the school. Significantly the Headteacher was not in attendance of that particular SLT meeting. The reception was insipid, with a number of barriers being suggested: 'teachers will not want to commit to that much time'; 'if we make it compulsory people will be reluctant and not participate fully'. I left the meeting feeling as if I still needed to sell the concept and convince the SMT that it was a worthwhile undertaking. A few weeks later the Headteacher, fresh from attending the Local Authority Headteacher conference, spoke passionately about a presentation the Headteachers had attended from Dylan Wiliam and how he had this great idea of TLCs. Thus the concept was accepted and I was granted permission to try out a school-based TLC, using the resources obtained from the Dylan Wiliam conference.

A further significant culture change in more recent years is that of funding. As schools' budgets have been cut, so have CPD budgets and so we, like most schools, had to re-think cost-effective CPD. A CPD day in London cost in the region of £300 whereas TLCs offered minimal cost implications are therefore are an attractive proposition to Headteachers, even if they are not wholly convinced by the concept. The first TLC ran in 2009-2010 and consisted of 12 teachers from a range of subjects. Since then the AfL TLC has run every year, with further ones being added in the areas of questioning, differentiation and e-learning.

Like all schools, this case-study school engages in an annual appraisal process, where teachers are expected to demonstrate how they have improved their practice through engaging in (often collaborative) CPD. By September 2013 all schools were required to have in place a new

pay policy (School Teachers' Review Body, 2012), a key policy change permits Headteachers to be able to reward those teachers who achieve the best exam results. This does not encourage colleagues within departments to share ideas and resources because ultimately their exam results will be measured against each other's. At a recent conference Bill Watkins from the Specialist Schools and Academies Trust gave examples of how the new pay policy in addition to the recent appraisal policy (DfE, 2012) made it easy to see why teachers might not be brave enough to try out new ideas in their classroom for fear of failure. The appraisal system brought two main changes: firstly; 'all teachers' performance must be assessed against the relevant standards - so that school leaders can make sure that their teachers' performance continues to meet expectations (DfE, 2012, p.1)'; and secondly, the limit of three hours observation was removed as the maximum amount of time that a teacher can be observed in one academic year. This policy has, like the one before, a clearer focus on capability and how Headteachers can remove underperforming teachers more easily. Consequently, there is pressure for teachers to constantly improve and the appraisal system requires them to do so. Furthermore, this pressure to improve competitively is found on multiple levels: on an individual teacher trying to out-perform colleagues; at departmental level because outcomes are compared across a school; and also at an institutional level as schools are pitched against each other in league tables. These factors might be seen to erode the willingness of schools to collaborate with each other and teachers within schools to support each other. The pressure to constantly improve and out-perform colleagues is found alongside pressure to adapt to new exam systems, implement a new National Curriculum and invent a new system of measuring attainment across Key Stage 3 in the light of National Curriculum Levels being abolished. This list of changes and associated pressures continues (Watkins, 2013). Watkins also spoke about the 'top 20 pressing issues for schools' all of which require significant thought, planning, time and strategic leadership for implementing significant change over the coming years. To summarise, the leadership team in the school attempts to encourage and support effective CPD for teachers by providing opportunities and putting in place structures to allow this to happen, despite the wider culture of accountability and appraisal.

At the time of data collection the school had been under the leadership of the same Headteacher for 10 years. He was an advocate of dispersed leadership and the senior and middle leaders in the school functioned largely autonomously. There was not a climate of accountability as he believed that teachers were professionals and would do the best job that they are able to do. This is significant as his views and the climate he created enabled collaborative forms of CPD to thrive in the school. For example 'Talking Teaching' is a long-

running group where teachers meet half-termly to share ideas and learn from one another, the group produces a termly magazine for all teachers to spread the ideas more widely. TLCs had run in the school for three years prior to data collection, the AfL TLC had run every year and other TLCs had been introduced as a result of demand. The key point is that it has taken many years to develop the culture and ethos of the school, one of support and collaboration, in the same way that it takes teachers a long time to implement changes and improve their practice. This culture exists despite the national agendas of appraisal and accountability, plus the pressure to have measurable improvements over one academic year. With a recent change in headship at the school, it remains to be seen if the culture is strong enough to withstand the external pressures, or even if the two can be married together.

1.5 The case study school and the AfL TLC

For the particular TLC that is the focus of this study a pack of materials directed its structure and content. The pack of materials entitled 'Embedding Formative Assessment' includes an agenda and resources for nine meetings. The meetings should be held for approximately 75 minutes on a monthly basis. Often in schools meetings are held half termly which would be approximately once every six weeks but this was deemed too infrequent for TLCs because monthly meetings encourage momentum and greater focus. The TLC should have no less than eight people and no more than 12 to ensure that every teacher gets sufficient time to share experiences and that there are still enough teachers to make the meetings worthwhile should one or two teachers be away from school or unable to make a meeting. The AfL TLC has a tight structure and it is clearly laid out for the group leader and members alike. Some teachers might find the structure too restrictive, although the dialogue in the meetings is not constrained and can take on the direction that the group wish. Other TLCs that the school run have a similar structure but a different focus and consequently different materials. Other groups have focussed on 'questioning', 'differentiation' and 'embedding e-learning'. The structure gives teachers a sense of knowing what to expect each meeting, but might stifle creativity; it would be interesting to try out variations of this model, with less rigidity and less structure.

Every monthly TLC meeting follows the same structure and sequence of activities. Activity one entitled 'Introduction & Housekeeping' starts with the group leader sharing the learning intentions for the session; this is expressed as 'We are learning to...' (also known as WALT), all of the WALTs can be seen in table 1 below. In addition a second WALT; 'share successes and failures, and support each other', features consistently across all the meetings.

Meeting	Learning Intention. Expressed as 'We Are Learning To....'
1	Establish effective ways of working collaboratively
2	Understand how to incorporate learning intentions into lessons and why this is important
3	Improve classroom questioning and discussion, involve all students in lessons
4	Mark less whilst giving students more responsibility, keep records of students' progress that help teaching and learning
5	Activate students as instructional resources for one another
6	Use hinge questions to find out what students know in the middle of a lesson [Hinge questions are asked part-way through the lesson to gauge learning, the remainder of the lesson hinges on the responses the teacher gets]
7	Make some formative use of summative tests
8	Activate students as owners of their own learning
9	Review our work together as a TLC group this year and how it has helped student learning

Table 1: Learning Intentions for each of the nine meetings.

After sharing the WALTs there is a starter activity which is designed to focus the teachers' minds on the session. Here is an example from session three: 'You have 30 seconds to tell the others about something at school that made you feel good during the last month.'

Activity two is called 'How's it going?' and will take a large section of the meeting. Every teacher is expected to contribute by sharing what they have tried since the last meeting and how they felt it went, in addition, if the activity was observed then the observer would also contribute. During this section it is the role of the 'challenger' (a group member who has been randomly selected) to challenge any discussion that moves away from teaching and learning and into story-telling. Although the format of each meeting is the same, this section in particular is different each time and so teachers do not find it repetitive. In my previous experience teachers have often made notes of activities they would like to try whilst their colleagues are sharing their experiences.

Activity three constitutes the new learning about AfL using the resources provided and also the experience of the teachers in the group. It is the section where the theory behind an idea is discussed and then practice is shared. Table 2 shows the number of ideas shared at each meeting:

	Theme	Number of techniques
1	What is AfL all about?	0
2	Learning intentions	15
3	Improve questioning and discussion	9
4	Mark less and give students more responsibility	9
5	Ideas for peer support	10
6	Hinge questions	1 (variety of examples given)
7	Formative use of summative tests	8
8	Activating students as owners of their own learning	10
9	Reflections	0
	Total	62

Table 2: AfL TLC sessions and total number of techniques

Wiliam (2009) describes the ideas as ‘tried and tested’ examples and as can be seen from the table above there are over 60 in the whole pack. Activity four requires all teachers to complete a ‘Personal Action Plan’. Teachers work in pairs to discuss some ideas and then commit to trying at least one of them when their partner can observe them. All participants complete the action planning sheet (a copy of a personal action planning sheet can be seen in Appendix 1) which is copied by the group leader, with the original being returned by the end of the session. Alternatively, as Wiliam recommends, the action planning sheets could be made up of NCR (no carbon required) copy sheets. Finally, activity five is a summary of learning in that session. The whole process models good practice so that teachers can learn by experiencing practices and routines themselves. The TLC leader is not an expert and acts only to keep the meeting to time and facilitate moving between activities.

Between meetings the teachers observe each other, not necessarily for a whole lesson, perhaps for a 20 minute slot where the teacher is trying something new. The teacher and not the observer controls what is observed, when and what success might look like or what evidence might there be if it has worked. Wiliam (2008) describes the TLC process as a ‘synergy’ between content and process and because it is drip-fed over a period of time it has an impact on teachers practice. By this William means that because there is an explicit focus on (AfL) content during the sessions and then the teachers put into practice what has been discussed and learnt after each meeting, all of which happens repeatedly over a period of time, so it is not easy to distinguish between the content section and the process as they happen simultaneously. As previously stated the AfL TLC had already run in the school for three years prior to the one that was the focus for this case study. Furthermore all the members of TLCs were volunteers and represented a range of subject areas and number of years’ experience.

1.6 My relationship with this research

In this section I begin by briefly explaining the different roles that I had and then go on to analyse the interactions of these in relation to power and identity.

During the data collection phase of this research I was an Assistant Headteacher with my main responsibility being 'Teaching and Learning'. Prior to this, experience had been gained in four different senior leader roles across two schools and over 16 years of teaching; the position of responsibility regarding the professional development of all staff had been held for three years. Whilst relatively new to the position of responsibility regarding CPD of all staff, I remembered being excited by the opportunity to attend a one-day CPD session regarding TLCs, partly because it was being run by Dylan Wiliam. That course impressed on me the need for our school to embrace in-house, collaborative professional development. After I had presented my vision for embedding TLCs into our school this vision was shared by the rest of the leadership team and by September 2009 we were running our first TLC; I participated and led that TLC and found the experience to be both uplifting and transformative and in an attempt to capture that personal journey I wrote 'my experience of a TLC', this is a piece of creative non-fiction writing and was included to ensure that my voice was not only heard within this report but also separated me from the researcher and author roles that I also had. It is very much the view of a classroom practitioner who is enthused and energised by new ideas and was written before data collection in order for me to feel as though my experiences and voice had a clearly defined place within the research and to minimise the possibility of it infiltrating through inextricably. This is expanded upon further in chapter 3, excerpts are presented in chapter 4 and the full piece can be found in Appendix 2.

I was a participant-observer in the TLC meetings and whilst I attempted to 'inhabit the hyphen' as suggested by Drake and Heath (2010, p.25) this was not easy. I was trying to observe what was happening in the meetings and take brief notes to aid memory and I had to sufficiently 'keep up' with what was happening in the meeting so that I could participate as a TLC member. It quickly became evident that whilst I might be trying to remain in my research role my colleagues were not aware of this. Early on for example I was asked about the leadership team's stance on a certain issue and I duly answered. In addition the group leader would regularly ask me after the meetings if I thought the TLC was going well and would seek reassurance that he was doing a good job. By providing guidance I was influencing the research but it would have been unprofessional not to do so. Even if I had wanted to or thought I was able to remain a researcher in different scenarios it just was not possible.

It is difficult to separate out the multi-faceted roles that I had and equally challenging to separate out the different dimensions and influences these had on the research, however here I attempt to elicit the key points. Within the TLC structure formal power is limited because the group leader does not direct the group nor are they the expert; in fact in this case study the group leader was in his third year of teaching and was therefore a relative novice to the profession. Early on in the research I battled to try and negate my power as a leader in the school until I realised that I needed to accept and embrace it whilst being aware of it and critical of its influence. Being a senior leader is a position of responsibility and brings with it power. Even when I was participating in the TLC meetings I was still a leader and that role did not disappear. However I was very conscious to try and sit back and let others lead the conversations and debate for example, if someone directed a question at me I would sometimes deflect it back to the group. Foucault might argue that my role is part of the regulation of an institution and that my participation forms part of the surveillance of subordinates in the system (Foucault, 1980). Whilst this might seem an extreme view, I can understand how my involvement in the TLC might be viewed by some as a way of ensuring the predominant ideologies of the organisation are adhered to and shared.

I have already referred to the myriad of identities that I had but of course it was not just me that was required to understand these. For example when I was interviewing teachers before the TLCs had begun I felt that I was firmly in the role of the researcher, but could they identify with that or did they just view me as the Assistant Headteacher with a few questions about TLCs? It is hard to know how my role influenced their responses. Drake and Heath (2010) suggest three loci of insider research: the reflexive self, the university and the workplace. They advise that the researcher has to make sense of all three and the spaces between them and intersections of them. This discussion forms part of my reflexive voice having focussed mainly on my role at the school, the workplace where I might be viewed as the 'expert' as I had prior experience of the leadership and TLCs. However, this is in contrast to being at the university for the study weekends where we were the students and the university staff were the experts and the ones with the power. There was a noticeable difference in feeling like an expert at school and yet a relatively novice researcher. This meant that I found it hard to be a researcher with an authoritative voice and whilst this thesis demonstrates significant progress in this area there might be some evidence of this in places.

Being an insider-researcher provides a unique continuum of both tension and richness. Having worked in the school and with TLCs for years I brought knowledge and experience to this research to which no outsider would be privy. Conversely knowing the school and the TLC

processes as well as I did meant it was difficult to distance myself, make the familiar strange and be reflexive. Being at the end and reflecting back on the whole research process it becomes clear why the research project comes at the end and is the final phase of the professional doctorate. Reflecting on my personal perspective and my professional perspective as well as taking a critical stance of both the research and the research setting has been a key time consuming process. The confluence of these dimensions of this case study, my understanding of professional practice and the institution through which this research was undertaken are what, according to Drake and Heath (2010), produce new knowledge.

There is a similarity between this piece of research and the process of the doctoral research programme, particularly the structure of the EdD. Both are centred on the concept of situated learning and are processes which occur over a period of time (Lave, 1991a, Lave and Wenger, 1991a, Wenger, 1999) and both draw upon themes regarding learning at work (Eraut, 2001, Eraut, 2008). As a cohort of doctoral students we formed a group encouraged to work together, support each other and utilise time spent together reflecting on the learning process and this is paralleled with the experience of teachers in the TLC. Furthermore the skills of reflection and the depth of reflection grew as time progressed mirrored by the time that I have been involved in TLCs.

When embarking on the doctoral course the students in phase one were the novices and the phase three students, some of whom were in their sixth or seventh year of study, were the 'old timers' according to situated learning theory (Lave and Wenger, 1991a). Now as I approach the end of the course I recognise that I am an old timer and as Lave and Wenger suggest I can leave the new and emerging novices to take my place in the community of practice that is doctoral study. During the course learning is embedded within activity (both physical and virtual), the context of the university and the culture of it including its reputation and history. Perhaps the role of the university as an institution that supports learning is more obvious than the school as an institution because the school's primary function is the learning of the young people who attend and not the adults who facilitate this. Generally in the TLC meetings teachers find it easier to discuss ideas to try in the classroom rather than the theory behind the idea; possibly they view university as the site for theoretical discussion and debate and not the school. This viewpoint would also support the notion that learning is situated within the activity and often within the physical situation, therefore a key part of CPD is supporting teachers to be effective learners in order to improve their teaching and the subsequent learning of the students.

In his work 'Learning from others in the workplace' Eraut (2007) explains the four elements of professional practice. The first is *assessing clients and/or situations* and was a key aspect once again for me as a doctoral student at the university and also as a researcher in school. I needed to assess the situation as an outsider looking into my place of work and decide on the nature of the research, the methods for data collection and so on. Similarly, I also needed to assess the research situation as an insider in order to monitor it and its suitability for a piece of doctoral level research and also monitor the on-going research situation during and after data collection. Secondly Eraut says that the professional needs to *decide what, if any, action to take*; again I needed to do that as a researcher and a member of staff within the institution both before and during the research marrying, the potential conflict of these aspects was not always easy. Next I needed to *pursue an agreed course of action* in terms of both undertaking the research and ensuring that I fulfilled my professional responsibilities in making sure that the TLC ran smoothly. The final point that Eraut makes is perhaps the most significant one: '*Metacognitive monitoring* of oneself, people needing attention and the general progress of the case, problem, project or situation; sometimes also learning through reflection on the experience' (2007, p.73) . The metacognitive processes involved in carrying out this research meant that I am a changed professional in ways that cannot ever be 'unchanged' in the same way that one cannot 'unknow' knowledge that has been acquired or learnt. The process of the doctoral programme also means that I am a changed researcher and I will return to these themes later in this report.

1.7 Conclusions of chapter 1 and overview of thesis

This introduction chapter is the first of five and it provides a brief introduction to what a TLC is which includes Wiliam's (2009) definition. This is followed by listing the research questions and explaining justifying their inclusion. Next, details of the case study school were given followed by details of the TLC and the format and structure of meetings before I discuss my relationship with the research including aspects of power, multiple voices and key theoretical concepts that influence the research and which I draw upon throughout.

The review of literature commences with a further and more detailed discussion around the prevailing policies that affect the current context of CPD in schools and this includes a definition of CPD and professional learning, it concludes with an explanation of the different approaches to CPD and how that has changed over time. Professional Learning Communities (PLCs) are compared and contrasted to TLCs in the next section of the review of literature and is followed by discussion of the three main theoretical concepts that I draw upon: communities

of practice (Wenger, 1999), situated learning (Lave and Wenger, 1991a) and learning at work (Eraut, 2008). A final section covers the main contributors to theories of learning and a sub-section is concerned with adult learning more specifically.

Chapter three is concerned with the methodological approach that I took and the methods used in this research. It begins by re-stating the research questions before justifying the use of an ethnographic case study approach and how that sits within my ontological and epistemological positions. I then detail the theory behind the methods used, beginning with observational field notes and then moving on to qualitative interviews. Creative non-fiction and small-scale qualitative surveys were also included as data sets and their inclusion plus details about them are included before reasons for selecting the Afl TLC for the case in this case study. From this follows my proposed model of a TLC with a further model of a TLC and how these influenced my thinking and data collection. The penultimate sub-section gives details of how I analysed the data in three phases, during and after data collection plus a final in-depth analysis. Finally I discuss the challenges to this case study, issues of validity and my positionality.

In chapter four I combine both the findings and discussions as I found this approach the clearest way of presenting the information whilst minimising repetition. I present the findings and discussions of the findings in the order of the research questions as this was logical but also reflected the emphasis of the findings. This leads directly into the final chapter which is the conclusions section, commencing with conclusions drawn in relation to the research questions and presented in the same order as the findings and discussions section to aid clarity. In drawing some conclusions I present a figure to demonstrate the inter-relationships between key aspects of the findings: observations; experimentation and reflection; and finally discussion. The confluence of these illustrates the potential for TLCs to facilitate learning through these aspects and I draw upon the work of Eraut (2001, 2009, 2010), Lave and Wenger (1991a) and the model of CPD presented by Desimone (2009) to illustrate and discuss the points made. Next I present my initial proposed model of TLCs, which is followed by a further model of TLCs, in order to illustrate the process to try and represent diagrammatically how teachers learn by participating in the process. The implications of this research on future policy decisions are included in the next section which precedes recommendations and limitations of this research. A final section on my personal development summarises my experiences of the TLC and participating in different communities of practice.

Chapter 2: Review of related literature

2.1 Introduction to review of literature

This chapter documents the key findings from my search through the related literature in relation to TLCs. I begin by summarising the historical development of CPD and give details of various approaches to CPD. This leads on to a definition of a TLC and how they differ from the more commonly used term of Professional Learning Community (PLC). I explore three theories to help explain the situated and social nature of learning within the structure of the TLC community; they are communities of practice (Wenger, 1999), situated learning (Lave and Wenger, 1991a) and workplace learning (2001, Eraut, 2008). The final section is concerned with theories of learning with a focus on changes that occur within the individual and includes a section relating specifically to how adults learn; it ends by clarifying some terms that are used throughout this text. This literature review excluded literature relating to pre-service teacher education for teachers as this case study is limited to a TLC for qualified teachers. The figure below represents the three key components of this review with key theorists drawn upon and symbolises the sifting and filtering required in producing a coherent and condensed review.

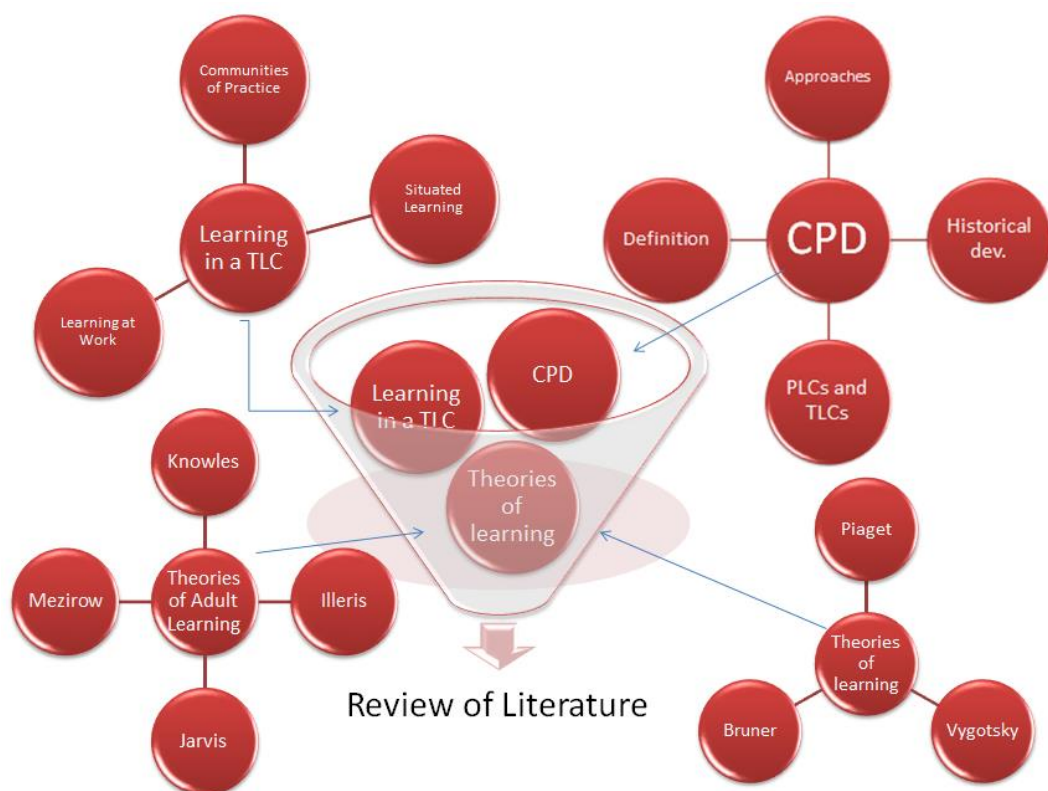


Figure 1: The three key components of the review of literature

2.2 Continuing professional development – a short history

This section builds on the context and policy section of chapter 1, by summarising the key approaches to CPD over the past few decades. It is hoped that telling the story of the changing themes will aid an understanding of where we are currently in schools with regard to CPD policy and practices. I begin by clarifying what CPD is and then go on to document the historical changes and how themes have shifted over time.

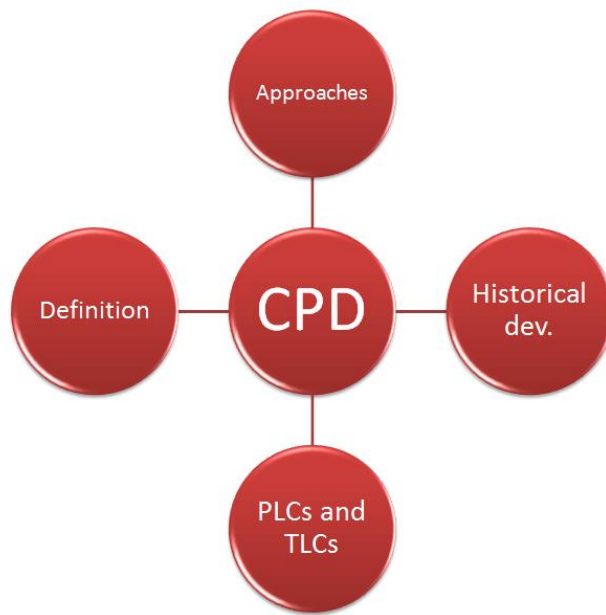


Figure 2: The component parts of the CPD section

2.2.1 Approaches to CPD

CPD is an all-encompassing term that has a wide variety of definitions and meanings; it is referred to as teacher professional learning, in-service training, continuous professional development, continuing professional education and many more similar phrases. More recently it has been called CPDL, continuing professional development and learning by Cordingley (2013). For the purpose of this research I will refer to it as Continuing Professional Development or CPD. CPD can consist of reflective activities (TDA, 2008) and is designed to improve the practice of teachers that begins at the start of the training process and ends with retirement (Villegas-Reimers, 2003). Activities can be divided into formal and informal ones based on the school site or elsewhere (Day, 1999). Elmore (2002) suggests that teachers are being asked to do something new, 'to engage in systematic, continuous improvement in the quality of the educational experience of the students and therefore the purpose of effective CPD is to enable that to happen' (p.2). This definition omits to explain that effective CPD can

be a hugely complex intellectual and emotional process for its participants (Day and Sachs, 2004), as noted here:

Professional development consists of all the natural learning experiences and those conscious and planned activities which are intended to be of direct or indirect benefit to the individual, group or school and which contribute through these, to the quality of education in the classroom. It is a process by which, alone and with others, teachers review, renew and extend their commitment as change agents to the moral purpose of teaching; and by which they acquire and develop critically the knowledge, skills and emotional intelligence essential to good professional thinking, planning and practice with children, young people and colleagues through each phase of their teaching lives (Day, 1999, p4).

Whilst lengthy, this definition encompasses a range of aspects related to CPD; indeed in recognising that CPD is often previously planned, there are also 'natural learning experiences' which could mean the unplanned and informal opportunities that occur every day in school corridors, by the photocopier, in the staffroom, or any conversation or sharing of information that helps and supports teachers and teaching. Day not only focusses on knowledge and skill development, he also refers to 'emotional intelligence' and how it is essential in relation to 'good professional thinking'. These are often aspects of CPD that neither trainers nor schools consider, yet are important and significant. Finally, Day uses the phrase 'through each phase of their teaching lives' implying that there is not a finite set of skills or a definite amount of knowledge to acquire and a teacher then has those for the duration of their career; whilst they might indeed have some of them for their entire career, different phases might require different approaches and thinking. This was the definition adopted by Cordingley and her colleagues in their meta-studies (2003, 2005a, 2005b, 2007) undertaken in the area of collaborative CPD and in the second 2005 report they suggest that three key themes are required for effective CPD: firstly, it must be collaborative and thus allow teachers to share best practice, ideas and experiences; secondly, in order for CPD to affect the day-to-day practice of the teacher it must be on-going, ideally for a period of more than one academic year; and finally CPD needs to be related to a teacher's individual setting, ideally undertaken in their own school so the learning can be applied. The findings confirmed what I and many of my colleagues had thought, in that one day courses have little impact on changing what teachers actually do in the classroom. In addition it reaffirmed what I suspected, that TLCs were effective because teachers worked together for a longer period of time and they were situated on the school site.

Timperley (2008) suggests that CPD should be the core business of every school because a day-to-day ethos of continuing professional development has far greater impact over time. Secondly she states that teachers not only need to develop their knowledge, but they also need to develop their ability to put this into practice, i.e. ways of supporting learning. Finally she concludes that teacher learning requires on-going support, time and practice. Her views are consistent with Cordingley et al. (2005b) with the added dimension of applying theory to practice. If CPD is to be effective it needs to be sustained, provide opportunities for collaboration, allow teacher input, reflect the practice in the school setting and support teachers' theoretical and pedagogical understanding (Hawley and Valli, 1999). Pont (2011) adds three further points: teachers should be active in their learning and not passive, teachers should be given sufficient time to devote to CPD; and finally teachers should have evidence-based materials to support their learning.

There is some debate about the purpose of CPD as to whether it: increases the skills and knowledge of teachers (Fenstermacher and Berliner, 1985); develop teachers' understanding of children and how they learn (Day and Sachs, 2004); helps teachers to understand the moral imperative of teaching young people (Fullan, 2003); or supports teachers to learn how to teach an aspect of the curriculum in a more inspirational, motivational way (Timperley, 2008). Of course it is all of these and different types of CPD serve different and sometimes multiple requirements with the ultimate goal being to improve student outcomes as suggested by Elmore (2002). Elmore breaks down effective CPD into three basic steps: firstly, that teachers learn skills or knowledge; secondly, they transfer these new skills or knowledge into practice; and finally steps one and two have an impact on student learning. Guskey (2002) would add a fourth dimension that teachers' attitudes and beliefs are altered following a visible impact on student learning. Desimone (2009) presents similar themes in her model shown below with the addition of 'change in instruction' as a separate phase, although it could be argued that this is incorporated into Elmore's second phase. However, the first box depicting the core features of professional development provides a breakdown of the component parts:

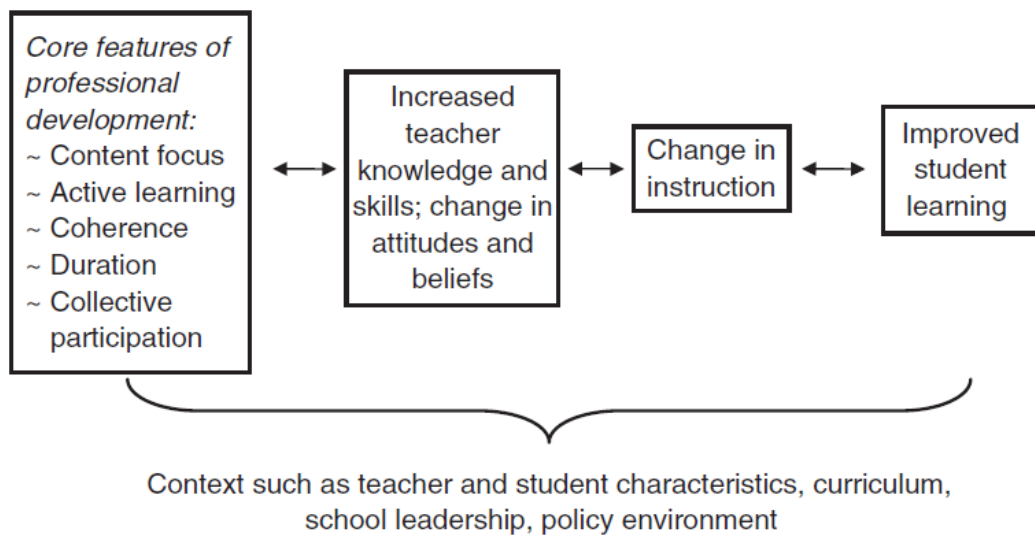


Figure 3: Proposed core conceptual framework for studying the effects of professional development on teachers and students. Desimone (2009).

TLCs would appear to link to all five of the 'Core features of professional development' as shown in the left-hand box in the figure above. The *content focus* of this TLC is AfL within a wider context of effective teaching strategies. *Active learning* is a key feature of the TLC because teachers share ideas and discuss them before trying them out in the classroom and observing each other, whilst *Coherence* relates to the teacher learning being consistent with their individual beliefs and existing knowledge and also consistent with the wider policies of CPD and school reforms. The TLC lasts for at least one academic year and therefore takes place for a longer period of time than some other types of CPD; this aspect of *duration* supports 'intellectual and pedagogical change' (Desimone, 2009, p.184). Finally *collective participation* in the TLC is supported because teachers are at the same school and therefore have knowledge that means they can relate to each other's stories of the classroom. Desimone suggests that all of these factors together increase the teacher's knowledge and skills and bring about change in their attitudes and beliefs. Additionally the double-headed arrow between the first two boxes suggests that this is a two-way process and this increase and change reflects back to improving the core features of professional development.

In previously submitted work I researched and wrote a chronology of the development of CPD over the past six decades (Barr, 2011). I will briefly summarise it here to help provide a context and also to document the political climate of my own experiences of CPD. The journey starts with the virtually non-existent CPD of the 1950s and goes on to the rapid expansion in local

authority generic training in the 1960s and 1970s (Baker and Sikora, 1982); whilst this represented an improvement, soon teachers reported that this type of training was irrelevant, too theoretical and difficult to implement back at school and then this led to an increase in school-based training during the 1980s. In 1988 the then education minister Kenneth Baker introduced five days of compulsory training for all teachers which initially became known as 'Baker days' and later 'INSET days' (an abbreviation of In-Service Training). The subsequent decade saw an increase in the 'one-size-fits-all' model where all staff received 'en masse' training; advantageous in ensuring that all teachers receive the same knowledge or message, but criticised for being decontextualized and difficult for teachers to implement change in their classrooms (Joyce and Showers, 2002, Kennedy, 2005). The 2000s were the decade of The National Strategy (formerly known as the Key Stage 3 Strategy) which saw extensive use of cascade-style CPD (Kennedy, 2005) combining an input of knowledge with small groups to discuss implementation of prescriptive teaching methods, many of which are evident today.

From tracking the academic and the school-based literature over the 1990s, the 2000s and into the new millennium it would seem as though the impact of university generated literature would generally be felt in schools in the subsequent decade. For example, Guskey's (2002) model of teacher change was first published in 1986; however a shift in changing teachers' classroom practice was not witnessed in schools until late into the 1990s.

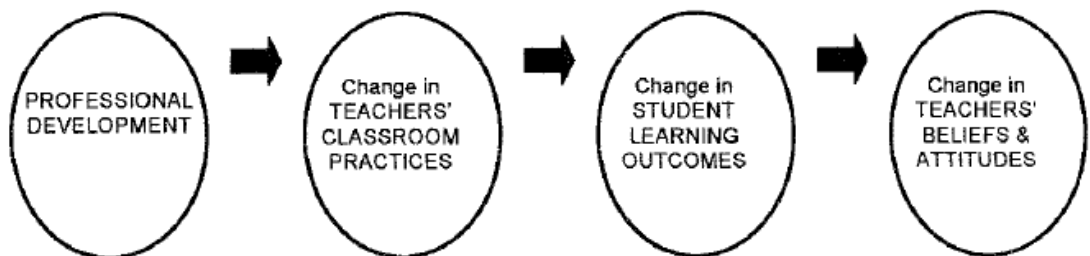


Figure 4: Guskey's model of teacher change

Guskey's (2002) model is often referred to in CPD literature and it contains very similar components to that of Desimone's model, discussed above, with a main difference being that for Guskey, the change in teachers' beliefs and attitudes comes after a change in student learning outcomes. Desimone's model depicts a more fluid movement between aspects of teacher change illustrated by the double-headed arrows and consequently, Desimone's model is one that I draw upon in this research as it presents a clearer, more detailed model to use.

In the early 1990s Lave and Wenger introduced the concept of 'communities of practice' (1991a) and it was not until after the turn of the century that themes emerging from this can be evidenced in CPD programmes. It appears that from then on the research into CPD exploded with new themes emerging with 'new perspectives on CPD', a 'dramatic-shift' (Villegas-Reimers, 2003) where teachers are actively engaged (Retallick et al., 1999), form communities of practice (McLaughlin and Talbert, 2006), change being innately linked to school reform (Fullan, 2008) and also where CPD may look very different in different settings (Higgins and Leat, 2001).

2.2.2 School leaders and professional learning

In their 'Best Evidence Synthesis Iteration' Robinson et.al. (2009) concluded that 'promoting and participating in teacher learning and development' (p.42) had the largest and most significant impact on student outcomes. Whilst they stress that there is limited information with regards to secondary schools, the impact of the head teacher and other school leaders is nonetheless an aspect to explore further. The Robinson study highlighted six studies that provided evidence for this claim, demonstrating that the head teachers in high performing schools were actively engaged in both formal and informal CPD (p.101). They highlight one study of particular interest where teachers were asked to identify a person in the school that they view as an instructional resource. In the highest performing schools, this person was cited as the head teacher. Whilst I am not the head teacher, I am nonetheless a senior leader and having specific responsibility for teaching and learning and professional learning means that I am more likely to be viewed as someone that could be an instructional resource for others and someone that teachers might go to for advice. Taking this one step further, my involvement in TLCs both during data collection for this case-study and also prior to it, means that there are strong messages in the school with regards to CPD that is valued and seen as meaningful. This concurs with the advice from Stoll et. al. (2006) who suggest that school leaders need to model learning in a professional learning community in order to develop the community and act as a role model. Similarly, Timperley et.al. (2007) found that effective contexts for promoting professional learning opportunities were achieved through 'Active School Leadership' (p.29) and because my professional role was largely about achieving the climate for teacher learning, it was impossible to remove the impact of my prior and also day-to-day actions from this research.

2.2.3 Professional Learning Communities and Teacher Learning Communities

With regard to teachers collaborating in order to improve practice, there is a plethora of terms used with some differing slightly in their definition and some using different terms to mean the

same thing. 'Professional communities' (Grodsky and Gamoran, 2003), 'organisational learning' (Lachance and Confrey, 2003) and 'learning communities' (Leiberman, 2005) are just some of the terms commonly used. In extending the definition beyond simple collaboration Leiberman suggests that PLCs are loose organisations that are borderless and flexible. Perhaps the clearest definition is provided by Stoll et al. (2006) in their review of PLC literature where they acknowledge,

broad international consensus that suggests a group of people sharing and critically interrogating their practices in an on-going, reflective, collaborative, inclusive, learning-orientated, growth-promoting way (Stoll et al., 2006, p.233).

This definition includes the key themes where people learn collaboratively over a period of time, with the main outcome of the collaboration and reflection being improved student outcomes (Hord, 1997). Schools engaging in collective enquiry is not necessarily a new concept as this was first mentioned in Dewey's work dating back to 1929 (Bolam *et al.*, 2005, Wood, 2007). However some literature suggests that PLCs' roots can be found in industry where a model from the business sector was adapted for education, the purpose of which was to develop collaboration between teachers (Vescio *et al.*, 2008). Collaboration has emerged as a current trend in education through the "schools' self-improvement" agenda of the 1990s (Stoll *et al.*, 2006); whether it has emerged from industry as suggested above or from education change management (Fullan, 1993), it became apparent that teachers working together to share ideas, increase knowledge and subsequently improve teaching was not just a good idea but it led to improved results (McLaughlin and Talbert, 2006). Furthermore and to make PLCs an even more attractive proposition to school leaders, some research suggested that teachers engaging in PLCs had improved self-efficacy and consequently they were more likely to experiment in the classroom and be happier and healthier (Rosenholtz, 1989).

In the Critical Analytic Study in phase two of this doctoral programme, I attempted to synthesise the vast literature in order to establish commonly occurring factors that make up an effective PLC (Barr, 2011). I found that there were four over-arching themes straddling the research, effective PLCs are said to have: *shared values and vision* (Louis and Kruse, 1995, King and Newmann, 2001, DuFour, 2004, Hord, 2004); *collaboration focussed on learning* (Hord, 2004, DuFour *et al.*, 2005, Stoll and Louis, 2007); *both group and individual learning* (Vescio *et al.*, 2008, Harris and Jones, 2010); and finally, *personal reflection* (Newmann, 1996, Hord, 1997, Stoll *et al.*, 2006). In addition to the points above, *supportive and shared leadership* and

also *supportive conditions* were also a priority for Hord (2004), whilst Newmann (1996) emphasised the importance of having a *clear and consistent focus on student learning*.

Having established a clearer understanding of what a PLC is and what makes an effective PLC I then needed to refine the search and apply a different lens in order to understand the difference between a PLC and a TLC, the latter receiving far less attention in the literature. Once again the terms are used synonymously making it difficult to find clarity, however, my conclusion is that PLC relates to the whole organisation or institution and to the ethos and/or the culture of the organisation in relation to CPD, whereas TLC relates to specific smaller groups of teachers working in a collaborative way to improve their practice with the result of improving student outcomes (Wiliam, 2009). The term ‘community of practice’ was used alongside PLC in the literature and I therefore explored this theory further and it became a key aspect.

2.3 Three theoretical frameworks related to learning in a TLC

In this case study, three theoretical frameworks were used to focus on the learning within the TLC: communities of practice (Lave, 1991b, Lave and Wenger, 1991a, Wenger, 1999); situated learning (Lave and Wenger, 1991a); and learning at work (Eraut, 2001, 2007, 2008).

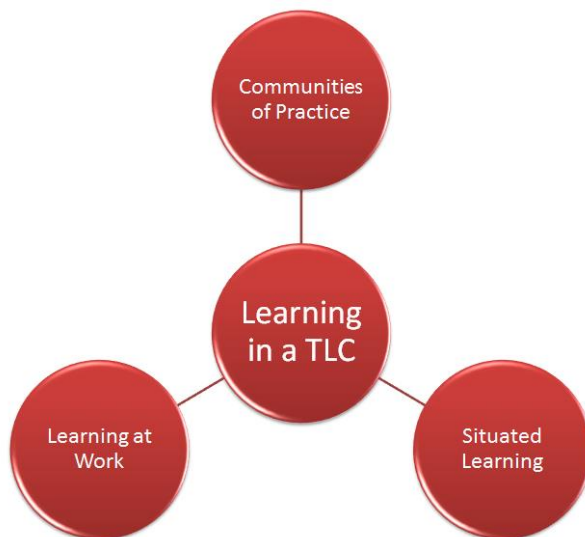


Figure 5: The component parts of the ‘Learning in a TLC’ section

Communities of practice was selected for a number of reasons, partly because it is a well-established and well-referenced theory and also because it provides a suitable framework on which to pin the group aspect of learning in a TLC. Situated learning is closely related, not just because of the cross-over in authors, but also because the learning that occurs in a TLC is as a

result of a group of teachers being together in one location, discussing aspects of teaching and learning. Communities of practice theory and to a lesser extent Situated learning theory have morphed into a commercial enterprise for its authors and some academics (for example Pryor, 2013) feels that some of the academic rigour has been subsequently lost. As a result of this, I used Eraut's (2001) theory of learning at work to reintroduce the academic rigour, because Eraut's work has been widely debated and also because it brought the added dimension of 'metacognition' which was an unexpected finding in this research. I had previously considered a range of other theories such as Engeström's Activity Theory (1999), whilst it could have been useful as it considers an entire work/activity system, it rejects individuals as insufficient unit of analysis and I wanted to focus on individuals and their experiences in the TLC. Additionally, I considered Transformative Learning Theory (Mezirow, 1997) as I had found participating in a TLC personally transformative, however I did not want to prescribe that viewpoint to the other TLC participants (as they might not find it transformative) and also the theory of Double-loop hermeneutics (Giddens, 1987) as it described the different directions the conversation and understanding of these can be interpreted, but it did not help me explore learning in the heads of individuals or how they were socially constructing the meaning of the dialogue that was occurring. I did not want the focus of the research to be the interpretation of the text produced in meetings or interviews, it was more about how teachers learn in the TLC and how they view their learning in relation to their practice in the classroom

2.3.1 Communities of Practice

On initial reading, communities of practice as described by Lave and Wenger (1991b) and Wenger (1999) provided too simplistic an explanation of TLCs. The TLCs exist as small communities of practice within a larger community of practice; that of the school and in this example the larger community of practice may also be referred to as a PLC as explained above. Wenger (1999) uses three phrases when defining a community of practice. His description of *domain* fits with TLCs as the TLC members are definitely not regarded as experts outside of the TLC in fact they are the opposite as teachers who want to and are willing to learn. Through the discussions and sharing of ideas within the TLC they form a *community* and they come to improve their *practice* and develop as teachers. On further scrutiny of Wenger's work it became apparent that some aspects would prove useful when analysing what happened during the TLC meetings and the changes individuals undergo by being involved in a TLC over a period of time. Wenger's (1999) writing on learning, knowing, participation and meaning-making helped identify the change in participation of individuals over the course of the academic year, for example, some teachers appeared to grow in confidence when sharing their

ideas. These aspects highlighted by Wenger provide a lens through which to view individuals and how they are changed by the process of engaging with the community.

Furthermore *practice* is about 'making meaning out of every-day life' (Wenger, 1999 p.52), thus teachers coming together to discuss techniques that they have tried out in the classroom is their opportunity to make sense of it: if the technique was successful why was it successful; would it work with a different class, in a different subject area? These are the sorts of questions for which teachers are seeking answers in the meaning-making process within the TLC. Wenger states that the 'duality of participation and reification' (1999, p.66) are fundamental to communities of practice. Here he refers to reification as the embodiment of social action and in the TLC this could take the form of particular classroom strategies encoded in writing within the resources folder. This idea supports claims made by TLC participants that their experience has changed them and that teachers are transformed through active participation (doing, thinking, feeling and belonging) and utilisation of the support of the paper-based stimulus and the written action planning (examples of reification). Wenger brings together viewpoints and information from a range of other sources and provides a useful analysis when looking at TLCs. Furthermore, Wenger is well-known for his collaboration with Lave and their work on 'situated learning theory'; this theory provides an interesting perspective through which to view TLCs in conjunction with communities of practice and therefore is included here.

2.3.2 Situated learning

In situated learning theory Lave (1991a) argues that learning is essentially a social activity and that humans are not empty vessels that need filling with knowledge. Saying that our minds, culture, history and social worlds are all interrelated and she urges us to view learning:

...not as a process of socially shared cognition that results in the internalization of knowledge by individuals, but as a process of becoming a member of a substantiated community of practice (Lave, 1991a, p.65)

This is where situated learning theory is useful in considering TLCs; teachers in a TLC can acquire knowledge and skills because they are being supported in developing their identity through participating in the TLC which, as previously argued, is a type of community of practice. Lave cites Becker's (1972) criticism of communities of practice by stating that such communities do not utilise resources, however, in this case study example of a TLC, there are teaching resources and these form an important part of the process. To illustrate how learning occurs in situ, Lave and Wenger (1991a) use examples of midwives in the Yucatan who pass on

their skills to their daughters with no teaching or instruction. The girls gradually assume knowledge through participating in experiences and taking a less peripheral role until they are deemed good enough to become the midwife. Through participating in the TLC teachers will observe their colleagues in the classroom. This presents opportunities for them to acquire skills related to teaching that they had not expected and were not necessarily looking for. Whilst this is not an overt part of the TLC is it one of the wider benefits. As teachers participating in the TLCs are qualified professionals with experience, the observations of colleagues are more meaningful because they are able to look for certain things and relate it to their own practice. The aspect of learning being a socially situated activity is shared by Brown, Collins & Duguid (1989) who suggest that learning and in addition, knowledge are both 'fundamentally situated' (p. 32) and the process of learning in a situation, known as 'cognitive apprenticeship' illustrates the importance of context and culture (Brown *et al.*, 1989), therefore, teachers participating in a TLC could be described as 'cognitive apprentices'.

Lave and Wenger (1991a) also place an emphasis on changing identity and to illustrate this they use the example of drinking non-alcoholics who change their identity through participation in Alcoholics Anonymous meetings to non-drinking alcoholics. TLCs can likewise support teachers to change their identity to becoming a more experienced and accomplished practitioner in the eyes of their colleagues. However the theory states that old-timers are gradually replaced by the new-comers who become the old-timers which may happen in the wider context of the school as a community of practice but not in the TLC itself, unless the TLC ran endlessly year after year with slowly changing participants. What became clear through the literature review is that TLCs are a type of learning community where individuals learn in different ways and this is situated in the workplace.

Whilst this research is situated within a social constructivist perspective, it was also useful to draw upon work from a cognitive approach to learning and in particular where cognition and social learning collide. Cobb and Bowers (1999) suggest that the two fields of cognitive learning and situated learning are not compatible because situated learning pertains to learning that is in a social setting and occurs through conversation because other people are present in a physical location. However, cognitive learning relates to learning in an individual's mind, which may happen in the presence of other people and is enhanced by other individuals, but not as a result of their presence. Korthagen (2010) takes a different view by suggesting that situated learning and cognitive learning are compatible because they are just two different ways of looking at the same thing. A three-level model is used by Korthagen (2010) to explain the learning process, describing a situation where a concrete experience leads to the

formation of gestalts which, through schematization, are formed into theories in order to place the schema into a logical order; he includes the process of reflection at each stage, he refers to this process as 'level reduction' which allows this new theory generated to be integrated into the teachers' larger gestalt or holistic understanding of the classroom and their role within. Korthagen (2010) is trying to show how teachers generate theory, drawing on abstract theory learnt in college or from CPD, and integrate it into their daily lives, to support teachers to see both theory and practice.

This work is important to this research because the processes of reflection and metacognition are key aspects of the findings. Brown, Collins and Duguid (1989) use the phrase 'situated cognition' which refers to learning and cognition being situated in activity and further their point made above to include knowledge, they say that: 'the activity in which knowledge is developed and deployed, it is now argued, is not separate from or ancillary to learning and cognition' (p.32). To conclude, there are differing viewpoints with regarding where the learning occurs, but it would seem that it does happen in social situations and leaves people changed, these points are further developed as this section proceeds.

2.3.3 Learning at work

As the TLC is a type of work-based learning it seemed pertinent to include research that includes how people learn at work., for example Michael Eraut has written extensively on how people learn in the workplace (Schwab, 1973, Eraut, 2000, Eraut, 2001, Eraut, 2008), with large parts of his research centred on informal learning and later incorporating formal learning. Eraut's findings relate to teacher learning in a TLC and also aspects of the TLC process such as the observations and discussions outside of the meetings that happen less formally; he states that knowledge and learning can be examined from an individual and social perspective. An individual perspective includes what people can do, what and how they learn and variations in how different people interpret and use what they learn. A social perspective includes:

- the social nature of most contexts for learning
- the social origins of knowledge that is shared, passed on or developed by groups, networks or communities
- the wide range of cultural practices and products that provide knowledge resources for learning (Eraut, 2009, p.4)

This relates to TLCs because learning occurs in a social context, where knowledge is shared and developed and yet leaves individuals changed. In the final bullet point Eraut (2009) refers to 'cultural practices' which also forms an important aspect of learning for Brown, Collins and

Duguid (1989) who argue that learning must involve all three aspects of activity, concept and culture and that no one of those points can be understood without the other two.

Eraut and Hirsh (2007) describe learning as an invisible process and knowledge as a state, while learning can be measured by changes in a person's knowledge. This is useful with regard to TLCs as a change in a teachers' knowledge will signify learning which may manifest itself by a change of practice, through differing discourse or improved student outcomes. Six aspects of personal knowledge (a term that he later re-phrased as *capability*) are listed which I relate here directly to teachers: firstly, the term *codified knowledge* which refers to pedagogy and is originally from books and journals but stored cognitively by the teacher ready for use in the classroom; secondly, *know-how* which refers to all the ways of teaching that a teacher has developed through experience; thirdly, understanding of students, colleagues and learning situations; fourthly, 'accumulated memories of cases and episodic events' (ibid, p.6) which relates to Korthagen's (2010) concept of theory generation; fifthly, other aspects of a teacher's expertise, wisdom from practice and tacit knowledge and; finally, knowledge of one's self, attitudes, values and emotions.

In his work on learning trajectories Eraut (2001, 2008) presents a summary of a model of progression originally presented by the Dreyfus brothers (Dreyfus and Dreyfus, 1986) . The importance of it here is that it highlights three different types of tacit knowledge; situational understanding, intuitive decision-making and routine procedures. Tacit knowledge has been described as knowledge that we know but are unable to speak (Polanyi, 1967) but Eraut extends this definition to include knowledge that can be made explicit and learning situations that result in tacit knowledge. His first point of situational understanding is a key one which will be drawn upon later in this thesis because through discussion in the TLC meetings tacit knowledge becomes social and shared knowledge. The TLC provides an opportunity for teachers to discuss what they know and do, sometimes implicitly, but through discussion and de-coding practice teachers can learn from one another. *Intuitive decision making* involves pattern recognition and rapid responses to developing situations illustrated by teachers when they are required to respond to the rapidly changing demands of a classroom situation and as a teacher becomes more competent their ability to tacitly apply the rules improves. *Routine procedures* refers to the increase in speed and efficiency with which teachers can go about their work through a transfer from explicit knowledge to automatic and what becomes increasingly tacit knowledge. This is why Wiliam (2009) believes that the format of the TLC meeting should remain the same each time in order to increase the speed and efficiency

through which the meetings happen so that the teachers can focus less on the structure and the meeting and more on the content and the discussions. The final contribution of Eraut's (2008) work worth drawing upon here is his model that shows the interactions between time, mode of cognition and type of process and is shown below:

Type of Process	Mode of Cognition		
	Instant/Reflex	Rapid/Intuitive	Deliberative/Analytic
Assessment of the situation	Pattern recognition	Rapid interpretation Communication on the spot	Prolonged diagnosis Review, discussion and analysis
Decision making	Instant response	Recognition primed or intuitive	Deliberative analysis or discussion
Overt actions	Routinised actions	Routines punctuated by rapid decisions	Planned actions with periodic progress reviews
Metacognitive engagement	Situational awareness	Implicit monitoring Short, reactive Reflections	Monitoring of thought and activity, reflective learning Group evaluation

Table 3: Interactions between time, mode of cognition and type of process (Eraut, 2008)

The table shows that as the columns move towards the right, the speed of either assessment of the situation, decision making, overt actions or metacognitive engagement slows down; I would argue that teachers function largely in the instant/reflex and the rapid/intuitive columns because they are so busy juggling the many facets of school-life. The table also goes part-way to explaining why less experienced teachers say that everything related to the school day seems to take them longer and seems more deliberate, as opposed to more experienced teachers who act more intuitively, rapidly and with more routinised actions. Of particular concern here is the far right-hand column indicating a deliberative and analytical response as a mode of cognition because the TLC potentially provides opportunities for teachers to deliberately analyse and discuss practice and it is argued that such opportunities are too infrequent or are prohibitive for many teachers in schools today. Time is rarely given to deliberately analysing, reflecting and evaluating practice with other teachers. The first type of process under this heading of 'Deliberative', represented in the top box, refers to assessment of the classroom situation where teachers have time in the TLC to assess their own practice and what they do, perhaps tacitly. They then make decisions on what they want to improve

upon which leads to overt actions which are observed and reflected upon both individually and with the support of the group. Finally, a deliberative and analytic mode of cognition brings about metacognitive engagement which encourages monitoring of thought and activity, reflective learning and group evaluation. It would seem that the TLC as a community of practice moves towards this at the end of the TLC process, once they have moved beyond thinking about their practice and more towards thinking about how they think about their own and others' practice. To conclude, Eraut's work supports the notion of socially situated learning in this case whilst at work. He breaks down knowledge into different types of tacit knowledge and introduces the notion of metacognitive engagement, concepts that are referred to later in this thesis.

2.4 Theories of learning

This section has two main parts to it and commences with theories relating to how individuals learn and is followed by a section regarding adult learning, deemed important as these theories bring added dimensions plus the TLC participants are adults.

2.4.1 Theories of learning

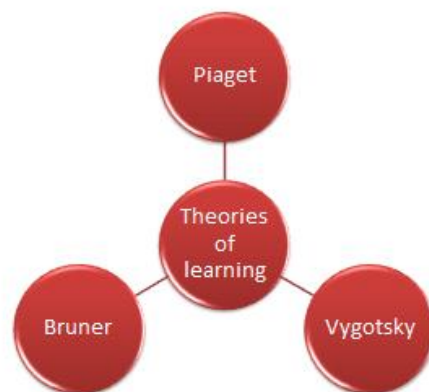


Figure 6: The main contributors to the theories of learning section.

A constructivist theory or world view suggests that learning is an active, cognitive process where individuals create their own subjective versions of reality and where new information is linked to prior knowledge. Piaget (1953) is said to have provided the foundation to most cognitive development theories (Knowles et al., 2005), with are three main aspects to his contributions: firstly, he suggests that children develop schemas which are the building blocks of intelligent behaviour and a way or organising knowledge; secondly, the processes of assimilation and accommodation bring about intellectual development where assimilation is

when a learner uses existing schema to deal with a new object, concept or situation; and finally, Piaget (1953) used the term 'equilibrium' to describe the force that drives children to learn new things, as learners are naturally inquisitive. Piaget's work was influential in the development of the proposed model of a TLC as the separate meetings appear to provide the building blocks for teachers to develop a sound understanding and practical use of AfL strategies and during those meetings they use their existing knowledge to help build intellectual development through assimilation and accommodation.

Vygotsky (1986) was critical of Piaget's work but drew directly on it and extended thinking on cognitive development; unlike Piaget, Vygotsky placed more emphasis on the role of culture, social factors and language on cognitive development. Vygotsky's work has three major themes: firstly, social interaction that involves language and dialogue plays a fundamental role in learning; secondly, the 'more knowledgeable other' (MKO) plays a key role in learning and development where the more knowledgeable other is often a teacher; and the final theme involves the 'zone of proximal development' (ZPD) which describes the distance between being able to perform the task under supervision and being able to perform the task independently. Vygotsky suggests that learning occurs in this zone and that the ZPD embodies a concept of readiness to learn that emphasises upper levels of competence; he considers future learning, in contrast to Piaget who only considers the past and Vygotsky-generated strategies are still evident in education today such as scaffolding, reciprocal teaching, emphasising skills of summarising, questioning, clarifying and predicting (McLeod, 2007). Culture and social aspects of learning have been discussed previously, but Vygotsky adds a third element of 'language', this relates to TLC meetings as the discussions allow for a sharing of a mutual language around strategies as well as assimilating the language from the research which is incorporated into the materials provided. The 'more knowledgeable other' in the meetings, it could be argued, takes the form of the written resources, plus the peer observation provides an opportunity for teachers to share situations that they have encountered; furthermore the AfL aspect of this case study TLC uses a variety of principles based on Vygotsky's work.

A third theory within the paradigm of social constructivism is 'discovery learning' by Bruner (1961) who suggests that learners discover facts and relationships for themselves and they draw on past experiences and existing knowledge to discover facts, relationships and new truths. As a result students are much more likely to remember concepts and knowledge as they have discovered them independently. Guided discovery, problem-based, stimulation-

based, and case-based learning are all models founded on this and are all important concepts when considering learning in a TLC. Whilst the structure of the TLC is relatively rigid, the discussions within the meetings are based on prior 'cases' and stimulated by the resources, consequently, the direction of those conversations is dictated by the group, not the structure.

2.4.2 Theories of Adult learning

Theories of learning predominantly relate to how children learn and therefore this review required the addition of theories and models pertaining to adult learning. These build on the theories previously discussed as there are assumptions that people have gone through various stages of learning as a child before becoming an adult. In addition, teachers have noticed how they might possess knowledge regarding theories of learning and can relate that to their work with young people in the classroom but can struggle to relate that to themselves and their own learning.

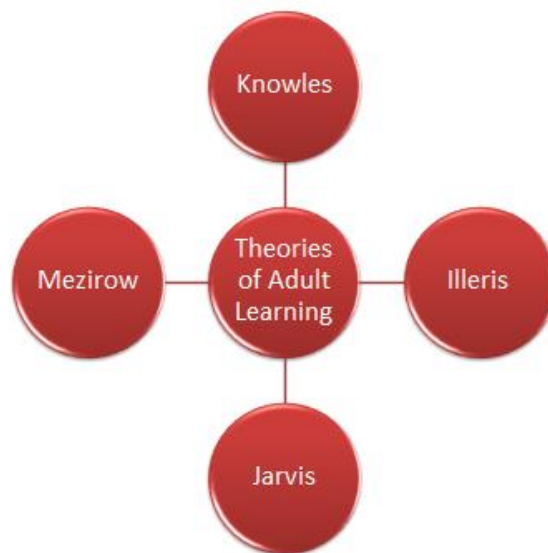


Figure 7: The key contributors to the Theories of Adult Learning section

Knowles suggested that the term pedagogy relates to children and so introduced the term 'andragogy' which he defined as the 'art and science of helping adults learn' (Knowles *et al.*, 2005 p.67). Initially Knowles' theory was based on four assumptions: as a person matures they become more self-directing and less dependent; adults have a range of experiences and these must be taken into account; adults have a readiness to learn which is linked to their social role and/or their developmental tasks; and adults have a time-perspective that children do not, in that they can apply their learning immediately and can problem solve relating it to future tasks whereas children often learn skills that are useful in the future. This is an important issue with

TLCs and whether they should be voluntary for teachers or compulsory as some schools have made them. If they are voluntary perhaps, as Knowles suggests, teachers have a readiness to learn because they have chosen to give up their time to participate. Later on Knowles added two further points that adult learners have internal motivation to learn and also that they need to know why they are learning something. The range of experiences individual teachers bring to the TLC makes it dynamic and thought-provoking plus there is a requirement of the TLC to apply learning into practice and report back on the success (or not) of the strategy that has been attempted. However, Knowles has been criticised by others suggesting that andragogy is just good practice and not a theory at all (Merriam *et al.*, 2007).

Illeris (2003) proposed a 'three dimensions of learning model' in an attempt to explain learning itself. The three dimensions are cognition, emotion and environment and are represented at each point of the triangle in the figure below. Cognition relates to the learning of knowledge and skills, emotion consists of motivation and feelings and the environment is made up of interaction and communication:

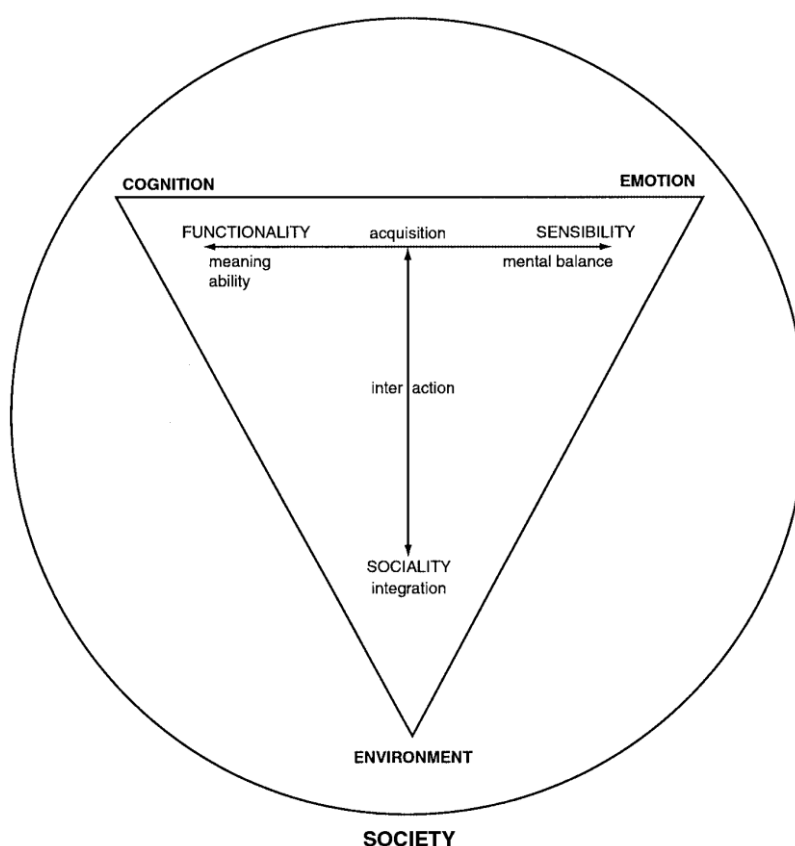


Figure 8: The processes and dimensions of learning. (Illeris, 2003)

These three dimensions are important in TLCs because teachers are learning knowledge and building their skills, in an environment that supports this development because it is a safe

space in which to learn and because they motivated to do so. The aspect of emotion builds on Eraut's (2009) contributions regarding cognition because it is related to how a person is feeling and the environment that they are in, therefore the cognitive processes that occur will be different depending on these two other factors. Illeris (2003) suggests that all three aspects of learning occur within society which is represented by the external circle. The TLC is within the circle and this would give a frame of reference for the range of learning opportunities that the TLC provides teachers within the 'society' which is the school setting. Illeris extends this point by stating that all three dimensions are present in learning although one or two might be more prevalent. He expands further, by suggesting that learning commences with one of five stimuli: perception, transmission, experience, imitation or activity/participation. 'The strength of this model lies in its comprehensiveness but also its simplicity' (Merriam *et al.*, 2007 p.99) and I agree with Merriam as it appears simplistic, yet covers a range of aspects of learning that are of relevance to TLCs. Illeris adds another dimension building on from Knowles; that of emotion. It would seem that social interaction inevitably has an emotional dimension because people display emotions in a variety of ways, especially in TLC meetings. Social interaction and emotion are intricately linked and Illeris' theory is unusual in highlighting this aspect of learning; he suggests five ways in which learning is stimulated through: imitation, experience, participation, transmission and perception. Within the TLC setting teachers participate in meetings, where learning is stimulated through resources and they utilise their prior experiences and imitate other's ideas when trying new things in the classroom; this leads to a transmission of the skill or technique from an idea on paper to an activity in the classroom. Finally, peer observation supports a range of perceptions to be considered as different people will have different perceptions of the same events, linking back to Korthagen's (2009) viewpoint of 'gestalts' as two ways of seeing the same thing.

Jarvis' learning process (1987) shown below, recognises the importance of an individual's personal experience and that learners bring their biography with them to the learning situation (points 1, 2 and 3 in Fig 9); it incorporated and superseded Kolb's learning cycle (1984) where a person experiences a learning situation, reflects on that experience, thinks about it and then plans what to do next before the cycle commences again and where memorisation is key to remembering how to do it differently again next time. If a person is willing to experiment and reflect on that experimentation, then Jarvis demonstrates that the person is affected by the learning and therefore changed in some way:

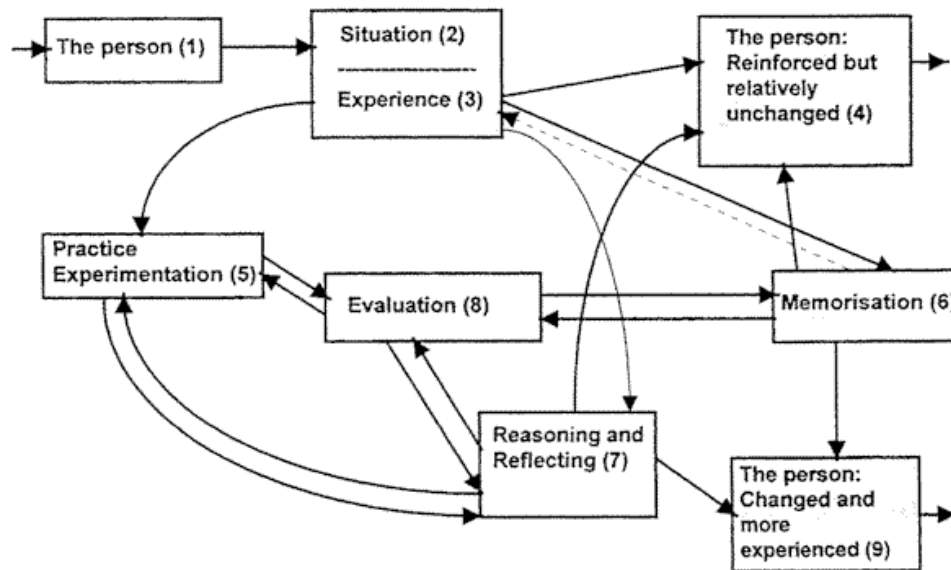


Figure 9: Learning process, Jarvis (1997)

Jarvis also suggests that learning is concerned with thinking, doing and feeling (different words which have similar meanings to previously used words of 'cognitive', 'activity' and 'emotion') and different combinations of these produce different types of learning, defining learning as:

the combination of processes throughout a lifetime whereby the whole person – body (genetic, physical and biological) and mind (knowledge, skills, attitudes, values, emotions, beliefs and senses) – experiences social situations, the perceived content of which is then transformed cognitively, emotively or practically (or through any combination) and integrated into the individual person's biography resulting in a continually changing (or more experienced) person. (Jarvis, 2006 p.134)

The range of aspects that Jarvis covers not only sums up the complexities of research in relation to teachers' learning but also why equating learning to specific points or triggers is impossible because it is unique to the individual and too complex to break down into individual points; one teacher's experience of a TLC will be different from another teacher's. How teachers transform cognitively, emotionally or practically is dependent on numerous, highly complex factors. Jarvis' model incorporates many aspects of previously discussed models, including key concepts of situated experience, reflection on that experience in relation to previous experiences, with the result being that people are changed or the belief is reinforced.

By 2006 Jarvis produced a further model to depict the transformation of the person through learning and to date Jarvis still views his model as 'work in progress'; indeed Le Cornu (2005), one of Jarvis's critics, identifies aspects of Jarvis' model as problematic and so adapts the

model to create her own 'holistic model of the processes of learning'. In this, Le Cornu acknowledges a greater focus on the role of *reflection* in learning which links directly back to Eraut (2009) and Korthagen and the importance they place on reflection in order to learn and is important as TLCs provide time to reflect on what has been learnt in a way that perhaps some other forms of CPD may not. Yet like others before her, Le Cornu admits that hers is an imperfect model at attempting to capture the multifaceted concept of human learning, something that I grappled with throughout the research.

Transformational learning theory can also be referred to as transformative learning. Taylor (2008) suggested that work in this area has 'significant implications' (p.8) for educating adults and that this area has replaced andragogy as the predominant philosophy. Transformational learning is concerned with adults changing their world view often as a result of a significant life experience such as a near-death experience. Key contributors to transformational learning theory are Taylor (2008), Mezirow (2000), Freire (1970), Daloz (1986) and Tisdell (2003). I have included transformational learning because I personally feel transformed as a professional, directly resulting from participation in TLCs and my written account of TLCs reflects this. Consequently, it would seem that the process of engaging in a TLC has the potential to be transformational for individuals.

Most versions of transformational learning contain three important concepts; experience, critical reflection and development. Taylor (2008) used seven lenses through which to view transformational learning and these are sub-divided into three individual conceptualisations and four sociocultural perspectives. The three individual perspectives are further sub-divided into psycho-critical perspective as presented by Mezirow (1981), psycho-developmental by Daloz and psycho-analytic by Boyd. Taylor (2007) recognises the contribution of Mezirow as the key individual in developing the concept of transformational learning and still in existence is the biannual conference on transformative learning which Mezirow initiated in 1998. Mezirow (1975) initially studied women who were returning to college and his theory is concerned with how we make sense of our lived experiences and that we filter experiences through our personal frames of reference, describing a 'habit of mind' as a set of broad, generalised assumptions and predispositions. This is a key point as a criticism of one-off CPD days is that although teachers might be inspired and have learnt new teaching strategies they can struggle to actually change embedded practice. Experienced teachers have habits based on thousands of interchanges and situations (Eraut's (2009) description of tacit knowledge) and whilst they might want to try out new things this feeling quickly dissipates when back in the classroom.

Another frame of reference is points of view; our beliefs, feelings, attitudes and value judgements that we bring to a learning situation. Mezirow points out that transformative learning occurs when we change our beliefs, attitudes, judgements (points of view) or our whole perspective (habit of mind). These changes can occur rapidly and suddenly or slowly and incrementally. This viewpoint reinforces what Elmore (2002) and Guskey (2002) suggest, that teachers will change their practice when they experience positive outcomes as a result of attempting new things.

Mezirow's theory is comprised of 10 steps although the four key ones of experience, critical reflection, reflective discourse and action are the main ones discussed and have been more widely researched. Critical reflection and the reflective discourse are of particular interest to me in researching TLCs. Critical reflection was presented by Schön (1987) who introduced the phrase 'reflection-in-action' which is where people reflect whilst participating in the activity. Moreover, Schwab (1973) involves the learner analysing their perspectives, their understanding of a situation and their assumptions. To gain deeper meaning and to make sense of the experience, reflective discourse is key with other people's view points and opinions helping to shape and either contradict or provide reassurances to any shift in perspective. This links closely with the value that Vygotsky placed on language and dialogue and the verbal interchange of language that creates discourse, with the final part of the theory putting into action the learning that has occurred perhaps by doing something differently.

My model

Having considered the related literature and combining that with my prior experience of TLCs, an initial model of TLCs was developed. The aim was to represent the process of a TLC in a diagrammatic form and it is shown below:

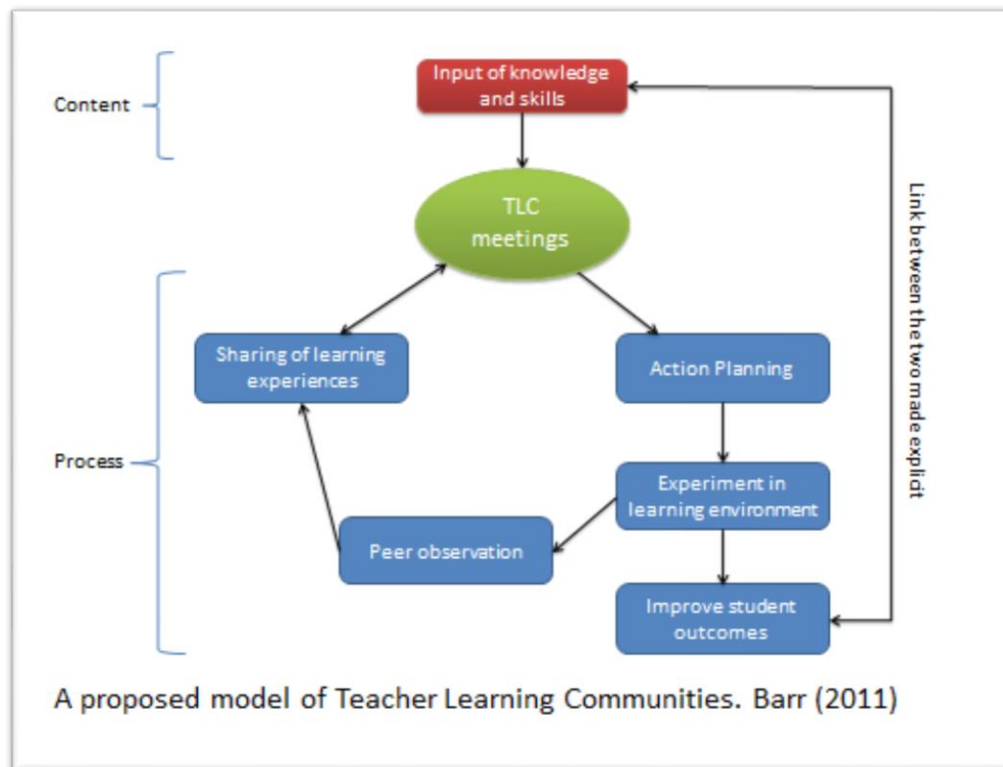


Figure 10: A proposed model of Teacher Learning Communities

The proposed model shows how there is an input of knowledge and skills, depicted by the red box, into the TLC meetings. Through discussion, review and analysis of the materials the teachers deliberately decide on what they want to try and therefore, action planning is an outcome of the meeting. This results in the teachers trying out a strategy in the classroom, peer observation supports these planned actions to happen and leads to monitoring of thought and activity, reflective learning and when discussed at the next meeting, group evaluation. The whole idea is that this improves student outcomes and the link between the initial input and student outcomes is made explicit. This model was reworked at various points during the research and two further versions can be found, in chapters three and five; I used the above model in conjunction with the theories discussed previously as a lens through which to view the research and in particular the findings.

2.5 Literature conclusion

I have attempted to extrapolate the most relevant research findings and viewpoints in relation to TLCs. In this final section I will attempt to explain the key emerging themes and the confluence of these running through the entire research.

This work considers teacher learning in a TLC and this can be viewed on both the individual level and also how the group itself facilitates this. Without the TLC members the individual teacher would not have the same opportunities to reflect, articulate experiences and share successes and failures but the ultimate outcome is for the individual teacher to change her or his 'habits of mind' (Mezirow, 1981), bearing in mind that an experienced teacher may have entrenched habits that are hard to change (William, 2009). Individual teachers bring their own unique personal experience (Jarvis, 2006) to the TLC where through the process of dialogue (Vygotsky, 1986), they share experiences and learn about AfL techniques from some suggestions presented on paper. They may experience disequilibrium whilst they assimilate and make sense of the materials and ideas (Piaget, 1953), before experimenting in the setting of the classroom and thus apply the learning to practice (Knowles *et al.*, 2005). Being observed applying this learning to a setting ensures that there is a change in the teachers' practices (Guskey, 2002) and this may result in a change in the person's attitudes, values and beliefs (Desimone, 2009, Elmore, 2002, Guskey, 2002). All of these combined experiences over time support change in the individual teacher's personal knowledge in terms of know-how, understanding, wisdom and memories to draw upon (Eraut, 2008). The whole group form a community of practice and learning occurs, not through formal teaching as this is not an aspect of TLCs but through participating like the daughters of the midwives as explained by Lave and Wenger (1991a). The process takes place over one academic year and thus there is time for reflection, feedback and for teacher identities to change, thus this process has the potential to be transformative because as Wenger states, teachers are doing, thinking, feeling and belonging (1999). CPD that takes place over a period of time and involves collaboration is more likely to be effective (Elmore, 2002, Cordingley *et al.*, 2005a), however change in teachers is highly complex and therefore difficult to break down into component parts.

Participation in a TLC creates opportunities for teachers to think about what they know, or consider how this knowledge might apply to their practice, which relates to the process of metacognition:

Metacognition refers to one's knowledge concerning one's own cognitive processes and products or anything related to them, e.g., the learning-relevant properties of information or data. For example, I am engaging in metacognition if I notice that I am having more trouble learning A than B; [or] if it strikes me that I should double check C before accepting it as fact (Flavell, 1979, p.906).

Flavell (1979) is reported to be the first person to use the term 'metacognition' and the importance of it became more pronounced as this research proceeded. In this context teachers thinking and reflecting on what they know and what they do not know, how they can acquire the knowledge and how they can put this knowledge into practice are all metacognitive processes that I would argue are difficult to find time for in the busy day-to-day routines of most teachers. However this type of CPD not just supports the opportunity for metacognition, it actively encourages it through the observation of peers and reflections of these by both parties.

Many of the theorists do not use the term metacognition but refer to aspects of it. For example Illeris (2003) refers to cognition, emotion and environment as providing the stimulus to learn. Eraut (2001) refers to it as knowledge of oneself which include attitudes, emotions and values. In transformative learning theory Mezirow (1981) uses the phrase 'critical reflection' instead of metacognition and Wenger (1999) refers to it merely as 'thinking'. To consider a range of terms was important as the teachers who were interviewed as part of this research used a range of words and phrases and I needed to ensure that I was clear as to exactly what they meant.

Finally, it is important to restate that the process of learning in a TLC is a complex one that cannot be easily broken down or understood. However for the purpose of this research I have attempted to be clear with the meanings and key concepts through which the data could be analysed, therefore the next chapter regarding the methodology and methods used will continue to support this clarification.

Chapter 3: Methodology and methods

3.1 Introduction

This chapter presents the methodology and methods that I used as well as justifying them as the most appropriate ones for this research. Details are given about case studies, the use of ethnographic methods to collect data and why interpretivism and social constructivism were the epistemological and ontological perspectives most appropriate for this research. Details are provided for all the methods used beginning with observations followed by interviews and surveys and also the inclusion of creative non-fiction, this is followed by a discussion of data analysis.

This case study was limited to the school I teach in, where I used one TLC group, that of the AfL TLC that had run for the three years previously with predominantly different group members; there were 12 members of the TLC initially. The actual methods used were ethnographic in nature. This involved me being an active participant in the nine TLC meetings over the course of the academic year 2012-2013 and interviewing five of the 12 teacher participants both before and after their TLC experience. Furthermore I collected data from teachers who had previously participated in TLCs by interviewing three and collecting survey data from 15, therefore all data collected was qualitative.

3.2 Conceptual design

This case study aimed to uncover teacher learning in a TLC and the effect of the TLC on the individuals and the institution in which they work. The research questions were:

3.2.1 Research questions

1. How do teachers learn in an AfL-based TLC?
2. What is the contribution of the TLC to a teacher's professional learning?
3. What are the outcomes of the TLC, for the teachers and for the school?
4. What are the key essential elements of the TLC?
5. What do teachers identify as the strengths and limitations of this TLC?
6. What elements of the TLC and teacher learning from this case study might be transferable to other schools?
7. What were the possible impacts of being a participant-researcher?

Data was collected over an academic year in an attempt to capture changes over time. The nature of describing events and experiences lends itself to collecting qualitative data. Furthermore, I wanted to uncover how teachers learn in a TLC by observing the TLC meetings and interviewing teachers both before and after they participated in a TLC in order to obtain their views of what and how they learnt. Methods such as observations of people in their real life setting produce descriptive accounts, this meant I needed to look into the area of ethnographic research as I was to be part of the TLC group as a participant-observer. I wanted to be able to describe the culture of the TLC and its members and try to understand the meanings that participants attach to their experiences (Bryman, 2001). I was not seeking out the unusual, I wanted to report on the everyday lives of teachers and their experience of the TLC (Walford, 2008). By creating data sets of observations of meetings, interview data from the teachers, my personal experience of a TLC and survey results, I aimed to cross-reference the data in order to increase the level of authenticity (Freimuth, 2009).

A case study 'provides a unique example of real people in real situations, enabling readers to understand ideas more clearly than simply by representing them with abstract theories or principles' (Cohen *et al.*, 2003, p.181). Furthermore the strength of this method is its ability to 'examine in depth, a "case" within its "real-life" context' (Yin, 2006, p.111). This is a descriptive type of case study because it was used to 'describe an intervention or phenomenon and the real-life context in which it occurred' (Baxter and Jack, 2008, p.543). Whilst this is strictly speaking a single case study with data from interviews, questionnaires and observations used, it also includes data from previously run TLCs and so to a certain extent uses multiple cases. The additional data were used as confirmatory cases providing data for replications to strengthen the case rather than to provide conflicting accounts. Whilst a case study provided the frame of the research the data was collected using an ethnographic approach. This seemed the most fitting as I wanted to observe teachers in their own setting (Pole and Morrison, 2003). I wanted to attempt the 'art and science of describing a group or culture' (Fetterman, 1998, p.1) and to ask 'what is going on here?' (Agar, 1986, Wolcott, 1990). I was already part of the field as I also teach in the same school and therefore am an insider-researcher and I will return to this dimension later on in this chapter, but I was also part of the TLC group as both an observer and a participant too. It was important to participate fully in the meetings not just because it is an ethnographic technique but also so that I could fully understand what it was like to be a participant in those meetings and be part of that process and not just passively observe from the outside.. LeCompte *et al.* suggested that 'Methods are multi-modal and the ethnographer is a methodological omnivore' (p138). As such it was important to me to draw

on different data sets, including interview data, field notes, research diary, survey results and a personal account as this meant that all of these perspectives could be used to re-tell the story. The following sub-section is a synopsis of the important aspects of this particular research approach pertaining to this case study.

3.2.2 Ethnographic approaches

The term ethnography comes from the Greek words for people (ethos) and writing (graphia) and is the study of people going about their routine daily lives (Walford, 2008). The ethnographer takes the role of an investigative reporter and asks 'what is going on here?' (Pole and Morrison, 2003, p.24) and I kept this in mind when taking notes in the TLC meetings. It was challenging to 'pin down' ethnography, which is not surprising as the term is used for 'both process and product' (Preissle and Grant, 2004, p.165). In this next section I have combined five key features of ethnography as stated by Bryman (2001), the seven key features of educational ethnography by Walford (2008) plus other relevant contributors in order to establish what ethnography is exactly. In addition I also consider why this was the most appropriate research method for me to use.

Firstly, the ethnographer should immerse themselves in the society they are studying to get a rich, deep understanding of the field. Whilst this might appear easy for me as I was already located within the field it was also a challenge as it was necessary to 'make the familiar, unfamiliar' (Pole and Morrison, 2003, p.25). Secondly, the ethnographer is required to focus on a full range of behaviours in order to uncover the culture of the group. It is this focus on culture that separates ethnography from participant observation (Preissle and Grant, 2004). Consequently, I did not record only what people said I also attempted to capture reactions and facial expressions that might be indicative of how teachers felt and also the general feel of the meetings. Additionally, Pole and Morrison (2003) suggest that ethnography is participant observation taken a step further by adding an autobiographical element. This aspect of autobiography became important to me in this research because I had three years' worth of previous experiences of TLCs and so had a longer time frame and more experience to draw on than the teachers who participated in my research and I will expand on this point later on in this chapter. Fourthly, ethnographers can utilise a range of research methods to suit the research questions designed to elicit perspectives members attach to their social world and to generate rich and diverse data. Then the researcher must attempt to 'render the data intelligible' for others (Bryman, 2001, p.1) and move from description to identification of concepts and theories and recreate this text into something of interest and significant. Finally

the researcher is encouraged to keep an open mind (Walford, 2008), whilst remembering that they are the main research instrument.

As the research progressed, it became apparent that in attempting to uncover how teachers learn in a TLC, the interview data provided the clearest account of what was going on in the minds of the individual teachers, more so than the notes from the participant observation. Nonetheless, the different data sets were all used to conflate and compare themes that emerged.

3.2.3 Methodological approach

If ontology is described as the nature of being, reality and existence (Freimuth, 2009) or how the world is made up and our view of that world (Cohen and Manion, 1998). Epistemology is described as the researcher's perceived relationship with the knowledge that she is uncovering or discovering, according to Cohen and Manion (1998), and they suggest that there are three main epistemologies: positivist, interpretivist and critical. Positivist methods are deemed as more traditional and scientific, where a researcher has a hypothesis to test and they use their data to prove or disprove their hypothesis. This approach is not suitable for a case study as I did not have a hypothesis to test nor was I collecting quantitative data. On the other hand researchers who take an interpretivist approach immerse themselves in a setting and interact with the study participants. This is in order to understand the social phenomena that emerge from the ways in which the participants construct meaning (Schensul, 2012). I therefore attempted to understand the teachers in the TLC by being immersed in the process and speaking with them in an attempt to understand how they view the TLC and the effect that participation in it has on them.

Having found the most suitable epistemological approach it became clear that social-constructivism would be the most applicable theoretical perspective because social constructivism is concerned with how individuals construct their reality in social situations (Denzin and Lincoln, 2005). Where scientific realists assume that reality can be broken down into its component parts, social constructivists believe that phenomena:

must be understood as complex 'wholes' that are inextricably bound up with the historical, socio-economical and cultural contexts in which they are embedded (Lodico et al., 2006a, p.8).

Lodico et al. (ibid) go on to state five assumptions underlying social constructivism in an education context. Firstly, there are multiple realities because reality has been socially

constructed through historical and cultural dimensions. Secondly, in order to understand educational problems and settings they must be treated as multifaceted and complex. Thirdly, the researcher themselves must not only be aware of their own values they must try to control them. Next, in order to completely understand their participants, researchers should strive to be completely involved in their worlds. Finally hypothesis and theories are usually generated during data collection not before and take on meaning through 'human interactions' (p.11).

This research position is linked to my world view where experience of both teaching and in life leads me to believe that individuals construct their own version of reality; therefore this case study was to be led by the views of the teacher participants. This has been evident to me on numerous occasions when dealing with pastoral issues where many students would have a whole range of interpretations of the same incident and all of them claiming to be telling "the truth". Previous personal experience of TLCs also illustrates this point as on occasions some teachers have relayed to me a conversation from a prior meeting in a way I do not recognise, whereas can recall a different (my own) version of that conversation, coherent with both my epistemological position and social constructivism.

3.2.4 Ethical aspects

I received ethical approval from the University of Sussex's ethics committee in the spring of 2012. According to the ethical guidelines set out by the University I obtained written consent from the Headteacher, the Chair of Governors and the individual teachers themselves, with the Headteacher being very supportive of the research and I kept him fully briefed at each stage. I ensured that the data was stored and used confidentially by adopting pseudonyms for all the participants and the data was password protected. I fully adhered to the guidelines as set out by the University and found no ethical issues occurred during the research that had to be addressed. As stated in the relevant sections teachers had a choice whether they took part in the research and they were told they could withdraw at any point although no one did. It is hoped that the research will be of benefit for the school and anyone from the school can have access to read it.

3.2.5 Student outcomes

The ethical approval form and original research proposal both contained details with regards to collecting data in relation to student outcomes. It was hoped that by interviewing students, to get their perspective on their learning and also to use quantitative student data the outcomes of the TLC could be explored beyond that of teacher learning. However, this was not in line with an ethnographic approach, which is to focus on the group and what happens in the

TLC and the affects that it had on teachers, not that of the students they teach, even though this seemed a natural next step. From experience of talking to students about their learning (a regular practice of mine) they find it difficult to be specific about which activities help them learn best, sometimes because their perception of 'learning best' is different from ours. This example from 'my experience of a TLC' illustrates this point:

In one lesson some of the class groaned when I got the lolly sticks out to randomly select their names. I enquired 'why the groans?' 'oww we don't like it because you make us think, and it hurts our heads. Can't we just let Dan answer all the questions like he does in every other class?' (Excerpt from 'my experience of a TLC' found in Appendix 2)

It is not uncommon for the students to report that they 'do not like' some of the AfL techniques, this might be because the AfL technique makes them work harder or think more deeply, as with the example above. Another example is if a teacher gives back a piece of marked work that has comments but no grades, the students can complain because they do not want to have to do *more* work on that piece, they just want to know their grade and move on. The point is that some students do not like being made to work harder or think more deeply nor do some like being made to reflect on their own work and how it could be better, the basics of good AfL. It seems that we have trained the students into having certain expectations about schooling that they do not like being changed, even if that change is for the good of their learning.

With regards to quantitative data, I spent considerable time looking at outcomes data for students and classes that were taught by the teachers involved in the TLC versus classes taught by teachers not involved in a TLC. This became very difficult because there are a range of TLCs that occur and some teachers have participated in them previously or different ones to the AfL. I removed them from the sample, but at what point should I stop excluding teachers from the data set? What about teachers who have participated in an MA in education for example? I found that it was possible to find an angle to prove that TLCs were effective on student outcomes as there was a correlation between certain teachers' results and those being the same teachers who were involved in long-term CPD. But these were also the most positive, enthusiastic teachers in the school and so what was the cause of those results? The fact that they took part in a TLC or the fact that they had the positive disposition to volunteer to be part of it in the first place? When I spoke to the member of the senior leadership team who is responsible for the school's data he basically asked me what I wanted to prove and said that

he could provide the data to show it. Obviously I was not happy with this approach as it was so disingenuous and it made me really question what was the point of including qualitative data if I could use it to prove or disprove any point I wanted to make.

Nonetheless, students were strongly present in the research, for example, in the discussions in meetings when teachers were talking to colleagues and feeding back on the AfL techniques they tried, they remarked on the students' reactions, relayed comments the students had made and/or spoke about the changes that the AfL technique brought about in the students. After all often the point of trying the techniques was to bring about a reaction or change in the students in some way. Similarly, the discussions that pairs of teachers had after an observation would often centre on students' comments, reactions and engagement. Therefore, this research explored teacher learning in a TLC, the aim of which was to embed AfL ideas into teachers' practice. The result of which was to improve student outcomes, thus resulting in the students featuring in feedback, discussions and of course being the focus of the observations.

To conclude, the approach used for this research was to look into how teachers learn in a TLC and I wanted to focus deeply on that and not get distracted with either student data or qualitative data that might not prove useful anyway. Various models of CPD (for example Desimone (2009)) state that the teacher reporting on changes to their practice is a sufficient start point to look into the learning and development as a result of that intervention.

3.3 Approach

The figure below depicts the data sets and the relationships between them. The three main data sets were the observations, interviews and observation notes and these overlapped to form the main sets of data, the points of conflation led to the findings. Three further sources: the creative non-fiction writing 'my experience of a TLC', data collected from previous cases and my research journal all influenced the main three data sets. All of these were framed within a case study approach.

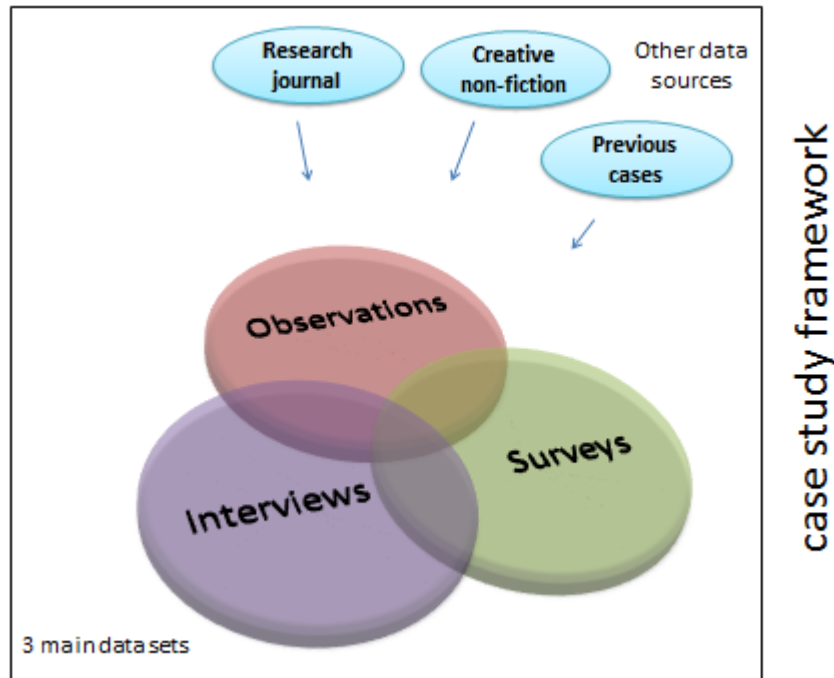


Figure 6: A diagram of the data sets generated from the variety of methods used.

3.3.1 Ethnographic field notes:

For the purposes of this case study a range of field notes were collected and utilised; observations, interviews, surveys and also the use of creative writing.

Method	When used	Data collected
Participant observation	Attendance at all nine monthly meetings	Nine sets of descriptive text, one from each meeting
Interviews	Five teachers both before and after the TLC, plus previous participants	10 interview scripts 7 interview scripts
Surveys	Towards the end of data collection	15 teachers returned surveys
Creative writing	Before data collection to capture my version	My experience of a TLC

Table 4: A table depicting the four main data sets and how they were generated

The table above shows the four main data sets, each one is then taken separately to provide theoretical understanding and justification of its inclusion and also the actual methods used.

3.3.2 Observations

Participant observation is a key part to ethnographic research and the phrase is used synonymously with ethnography (Pole and Morrison, 2003). Participant observation is motivated by *wanting to know*, Delamont (2008) describes it as a 'lust for knowing' (p.39). Pole and Morrison (2003) said that 'most people know intuitively what it is' (p.19) and I would agree with them in terms of the observation aspect as we all spend a lot of time looking at

people, especially when they are talking. However I do not agree that carrying out ethnographic observation is necessarily intuitive, as an unskilled researcher may miss key aspects of data collection. I needed to practice the skills of listening, contributing and answering questions all whilst note-taking in order to record the observations and initially I found it quite difficult to juggle all of these and not neglect one. Therefore before embarking on the participant observation phase I considered carefully how to observe, what to observe and what to write down whilst in the meetings and then where to record these notes and what to do with them after writing them up.

Prior to the data collection phase I needed to decide what type of participant observer I wanted to be. It would not have been ethical and indeed was not appropriate to have *total participation* i.e. where the rest of the group were not aware that I was collecting data, nor did it seem appropriate that my role as a researcher was only known by certain gate-keepers as described by the *participation in the normal setting* role (Denscombe, 1998). Despite my fieldwork being undertaken in a school it was unusual as it was not observing children, learning or teachers teaching. Nonetheless I researched the ways in which this phase of the data collection should be carried out and heeded the advice given, in both research methods for education and social sciences literature. Having participated in two years of AfL TLCs already the biggest challenges as Delamont (2008) suggested were 'over-familiarity and boredom' (p.42). Conversely, even though the resources were the same, the teachers were different and so I did not find this aspect particularly challenging. For example, various techniques were adopted to ensure familiarity did not creep in too much, consequently, I sat in different places, set up the room in a different formation and the meetings were located in different rooms. Boredom was not a problem, in fact maybe the opposite became a problem as during meetings my mind was active and sometimes it was difficult to take notes whilst listening and interpreting information. I was busy recording what people said, how they seemed at different points, for example on arrival, during and after the meetings, what they did, , how other people reacted to suggestions or statements, what people were wearing, what the feeling in the room was like at various points, whilst also trying to be a participant and trying to engage in the conversation, recount my ideas, experiments and experiences in the hope that they will provide a stimulus for someone else or add to their learning.

During the meetings my note-taking was messy with abbreviations, codes and scribbles being used to record what happened. At times I became conscious of people looking at what I had written and although messy, this concerned me so I would sometimes sit back and move my note pad to my lap and it was apparent that some others were aware of my presence as a

researcher. Although I wanted to record the timings of events within the TLC, the use of a timer or multiple checks of my watch seemed rude so I would guess and also try to use the amount of notes to help gauge at what point in the meeting things were discussed; being familiar with the format of this type of meeting assisted this process. Details of concrete things such as the work sheets used were not recorded as it was possible to refer back to them later and indeed in my notes they remained in coded number form for easy reference. As advised, my field notes were used for recording what happened in the moment and my research diary to record my reflections afterwards. This was also challenging and sometimes the two merged. Often thoughts or reflections entered my head at another point and so notes were added to the bottom of agendas, on lesson plans, on minutes and in a range of other places and at various points they were collected up and transferred to my diary. This took both a written form on a notebook and an electronic format on my computer. An example of field notes from a meeting can be seen in Appendix 6.

3.3.3 Interviews

In this section interviews are explained in terms of what they are, why interviewing was included as a method of collecting data, how the interviews were conducted and who was selected to be interviewed and why.

‘With qualitative research interviews you try to understand something from the subject’s point of view and to uncover meaning of their experiences’ (Kvale, 1996, p.165). Interviews allow for people to describe and explain their experiences in their own words and is an exchange of knowledge between two people, with knowledge being constructed between them (Cohen *et al.*, 2003) and gives ‘access to what is inside a person’s head’ (Cohen and Manion, 1998, p.268). The interviews were an opportunity to capture the perspectives of the participants in their own words and this was important to me as this research used ethnographic approaches because I wanted to capture the teachers’ lived experiences of the TLC. The interviews allowed for deeper probing than that of the surveys as Forsey (2008) says, interviews are ‘a research activity that I argue is part of the process of participant observation’. The purpose of the interviews was to co-construct knowledge and to gain an insight into the respondent’s version of events. I had been a participant in all the meetings and had my fieldwork data and recordings of them but I needed to combine those recorded conversations and incidences with their experiences in an attempt to understand the process from their perspective. In addition a large part of the learning in the TLC process occurs outside of the meeting time and therefore it was not possible for that to be witnessed or recorded. Another important aspect of the interview was not merely for the participant to recount their version of the TLC meeting but it

formed a platform for me to attempt to understand if they had learnt anything, if so what they had learnt, how they had learnt it, why they had learnt it and if they felt as though their classroom practice had changed.

All interviews were voice-recorded and transcribed within days of recording. Participants were not asked to check the interview transcript for a number of reasons. In part this was due to time restrictions, partly due to advice from a peer at the university who had found the process unproductive and unhelpful and also due to it being recommended in situations where the actual phrases and words used are essential whereas this research was relying on themes and feelings rather than specific words. That said on a few occasions clarification was sought on some sentences and/or some meanings with individuals when required this was an advantage of being an insider researcher as there was continued access to colleagues.

However being an insider-researcher and co-constructor within the TLC I needed to consider my role in the interview, both how this affected my approach and the interviews themselves as clearly the relationship between the interviewee and myself has implications on the kinds of texts produced (Dunne *et al.*, 2005). Issues of power, differing roles and how I am perceived contrasts with the trust, curiosity and naturalness attributed to ethnographic interviews as discussed by Cohen *et al.* (1998). Influenced by Bell's 21 point interview checklist (1993) and Kvale's work on qualitative interviewing (1996), it was surprising how many aspects I had already considered prior to proceeding; aspects such as location of the interview, body language, seating arrangements, recording devices and leading questions, perhaps this came from prior research undertaken. Point 19 of Bell's list says that the interviews must be carried out with honesty and integrity and I would like to think that I conduct my daily life in such a way that this went some way to helping the participants feel relaxed and not judged. This links to my epistemological approach as it was not about trying to find a 'truth' but was about asking the teachers their opinion and therefore there were no right or wrong answers. Knowledge that generated from interviews is related to a post-modern perspective of knowledge construction. Before the interview one teacher commented that she wanted to say the right things so that my research would be successful suggesting that even if I was clear about my research position perhaps the teachers were not. Hence I decided to be sure they were aware that I was not seeking a 'truth' and that I wanted to hear their interpretation and their perspectives.

Forsey (2008) describes how there is a 'science to the methodology and an art to the process' of interviewing and I was mindful that although I prepared as thoroughly as I could, more could

have been done. My research stance on interviewing would be described as constructivist (Silverman, 2001) because interviewees were encouraged to construct narratives of events; however because I was actively taking it in turns to construct the meaning it might also fall under the category of 'emotionalism', as I intended to give an insight into the other people's experiences (Silverman, 2001). The interviews both before and after the TLC process were subsequently semi-structured and relatively informal.

In selecting the members of the group to interview I exempted those teachers who had previously participated in a TLC. This was necessary as I wanted to collect their views both before and after being involved in the TLC as if they had already participated I had missed the opportunity to carry out interviews before they embarked on the process. Of the 11 people who had identified themselves to be part of the TLC, four had already been part of one previously which left seven whom it would be possible to interview. This was too many and so two further teachers were eliminated for different reasons: one had been off work for a few weeks due to a personal issue and there was a concern that asking her to do interviews would place added pressure on her already heavy workload and the other was a part-time teacher who worked on the other site, making the logistics more difficult. As there were no real grounds to eliminate the others and as there was a concern that some people might drop out, all five were interviewed in the hope that there would still be at least three left by the end of the TLC process. Interestingly the teacher mentioned first above who had been off work for personal reasons above did drop out of the TLC due to workload pressures, another left the school for promotion and one was on long term sick by the end of the TLC. However it was still possible to interview all five of the original group that had been interviewed before the TLC meetings. Of the group of five, one was male and four were female. This was a fair reflection of the whole group where three of the 12 were male and this largely reflects the female/male split of the whole staff which is 68% to 32% respectively.

All five teachers were contacted by email as it was hoped that they would feel more comfortable in being able to decline my invitation to take part through this more impersonal mode; had it been a face-to-face request they may have felt pressurised. Finding a suitable time to meet was a challenge due to meetings after school every day so I suggested a slot during the school day where we both had a non-contact hour. This was done well in advance of the first TLC meeting as there was the possibility that due to the busy nature of our school the first suggested date may not be suitable. All five were interviewed in a quiet office away from the main energy of the school and all teachers signed a consent form and I made sure I talked through with them the purpose of my research issues of confidentiality, anonymity and

that they were free to withdraw at any point. It was also explained why the interview would be voice-recorded, what would be done with the data and how it would be stored. It was important that the teachers felt relaxed and not under pressure to come up with the 'right' answers and it was made this clear in the pre-interview discussion that I wanted their perspectives on themselves and the TLC. The table below shows the structure of possible interview questions used before the TLC commenced:

Purpose of line of questioning	Example question pre-prepared for interviews before TLC meetings
Open the interview Help them to relax (talk about themselves and the 'known')	Can you tell me briefly about where you are in your teaching career? (How long have you been teaching? How long have you been at this school?)
Establish some understanding of AfL and their previous 'exposure' to what it is, what it means	And how do you currently feel about Assessment for Learning? (What is AfL? Which techniques do you currently use? Which ones would you say are embedded into your practice)
What is their motivation for joining the TLC	Could you tell me about your decision to join the TLC this year?
Expectations of the TLC (in case this has not already been covered)	What are your expectations of the TLC this year? (What do you think it is going to be like? How do you feel about it now, before it starts?)

Table 5: Interview schedule before TLC commenced.

As soon as possible after the interviews the notes were transcribed from spoken words to text using 'Dragon Softly Speaking' software as this enabled it to be transcribed with relative ease and at a greater pace than listen-stop-write methods experienced in previous research which was time-consuming (an example of an interview transcript can be seen in Appendix 4). Microsoft Word was used to store the data and NVivo was used to both store and analyse them; I wanted to be able to store them safely, easily and be able to code and retrieve data when I wanted to. It was useful to transcribe as soon as possible as it was easier to recall what happened but also it enabled me to begin to analyse the data as from early on themes started to emerge and I was beginning to make notes in my research journal that would later be used.

Eight months after the initial interviews and at least a week after the last TLC meeting, to allow time to reflect, the interviews were repeated for the five teachers who were originally interviewed and as none had dropped out it seemed sensible to interview them all. This was to allow me to obtain their perspective from both before and after the TLC process and this second interview was more lengthy because the teachers now had a lot of experiences to reflect on and also was more unpredictable because I really wanted to probe them to find out

how they had learnt and why, but I did not know how challenging it would be for them to articulate this.

Having collected all the interview data I took time to reflect and re-read it all. I also went back and interviewed three teachers, two of whom were participants in the first year of TLCs in 2009 and the other was from year two in 2010. I had been the leader of both the 2009 and the 2010 TLCs. I also drew upon data collected in pilot interviews, where I interviewed three colleagues who had just finished the TLC in a previous academic year. These pilot interviews were mainly for me to practise the logistics and techniques of interviewing. However some of what they said proved too valuable to not use. All of the participants had given written consent.

This totalled 17 interviews with individuals and field notes from nine meetings. The table below gives details of the numbers involved:

Interview type	Pilot	Pre TLC	Post TLC	Previous years
No. undertaken	4	5	5	3

Total: 17

Table 6: Interview data collected by number and type.

Whilst this produced a considerable amount of data to analyse and code, this had been done continuously during the data collection phase rather than waiting until the end, partly so that was not too onerous and also as I wanted to use the part-processing of data to inform the next phase of data collection. I was also not willing to ignore the advice of Delamont (2008, p.53) who said 'it is absolutely fatal to separate analysis and writing up from the fieldwork'. Not only were the field notes written up as I went along but I also coded and partially analysed them. This constant iterative process supported me to maintain the pace and enjoyment of this research but more importantly encouraged me to keep thinking, reading and trying to make sense of what was happening. The interview data proved to be the set of data that was most utilised in the 'Findings' section and therefore direct quotes were utilised in order to use the exact wording or phrase that the teacher used in the interview.

3.3.4 Creative non-fiction writing

Inspired by a peer's presentation at University, one section of my data took on a new format as I was keen for my own experience of a TLC to be included. I chose a creative non-fiction style as firstly, it was a personal account and I wanted to tell the facts in a compelling way and

include all the emotions associated with it (Gutkind, 2005) as my experience of the TLC involved a range of emotions, including at times quite extreme ones. Secondly, I hoped that it would aid the reader's understanding of what actually happened in the TLC meetings (Cheney, 2001). The AfL materials could have been included in appendices but this would not have given the reader an insight to the part the resources played and how participants interacted with them. Creative non-fiction has been deemed a contradiction of terms (Caulley, 2008) as the word creative is often associated with fiction and 'making things up'; however this is far from the truth and Gutkind (2012) describes it as 'a true story, well told' (p.6) and factually accurate prose about real people and events. Also known as ethnographic fiction (McLaughlin, 2014) praise for the genre has included making academic texts less conventional. Significantly, writing in this style presented with me an opportunity to consider my identity in the research. Words that became data, allowed me to posit myself in a specific position within the research yet it was bound by the restrictions of it consisting of one piece of writing; that of my personal experience of a TLC. Having this deeper understanding of my identity in the research allowed me to better understand the other teachers and in addition it supported me being able to separate myself out as a practitioner, a researcher, a leader and other roles that I had in the school and allowing me some distance from them. Dunne et al. (2005) draw on a term originally used by the ancient Greeks, mimesis, which meant the way in which art imitates life. They explain how the definition was expanded by Ricoeur to 'explain the way humans make sense out of action' (p.57) and continue by explaining how Flick (2002) characterises Ricoeur's three types of mimesis. Mimesis one relates to ways in which we are able to understand what is going on; mimesis two is the process of transforming the social action into text and finally mimesis three relates to recreating that text into a report suitable for its audience (Dunne *et al.*, 2005). The creative non-fiction writing supported me in mimesis one by helping me feel clearer about where my voice as a participant would sit within the research. Further it also supported mimesis two and three in the creation of data in the form of text and then the final writing of the thesis. The full account of 'My experience of a TLC' can be found in Appendix 2 and is not included in full in the findings section in the same way that the interview transcripts are not presented in full. The creative non-fiction was treated as just one type of data that could then be used to compare and contrast with other data sets and in particular the views of others. It could be described as a way of expressing personal ideas that would have been expressed (albeit differently) if I had been interviewed and it also avoids the navel-gazing approach of auto-ethnography and fulfils the aspect previously highlighted of emotions and feelings.

3.3.5 Small-scale, qualitative survey

In keeping with the multi-modal methodological approach there were some teachers' voices that were missing. Whilst surveys have been described as 'unsophisticated and limited' (Cohen *et al.*, 2003), there seemed to be a place for them here in order to obtain the views of the participants who had not been interviewed. They may have had differing views, for example there may have been some teachers who did not feel as though they had learnt in the TLC. Therefore a short survey was constructed and sent by email to 20 teachers who were at the school and who had participated in any of the AfL TLCs (TLC1: 2009-2010, TLC2: 2010-2011, TLC3: 2011-2012 or TLC4: 2012-2013). For the questions I used the research questions and re-worded or restructured them to be fairly open as it was a relatively small sample size. A copy of the survey can be seen in Appendix 3. In the accompanying letter it was made clear that the teachers did not have to reply and that all data would be used confidentially, they would have anonymity and the answers they gave would not be traceable to them. 15 replies in total were received having sent one reminder email. This number of returns is a relatively high rate but is similar to other surveys that have been carried out in the school and it could be attributed to the fact that people are more likely to respond if they are known to the researcher and are in regular contact with them. It may have been due in part to my senior leader role in the school and teachers thinking that they should respond purely because they ought to and that they might be in some way disadvantaged in future should they not. A completed survey can be seen in Appendix 5.

This data generated from the surveys was analysed along with the data generated from interviews and observations; the interviews were the main source of data while the surveys were used as a back-up and to reinforce the other data, providing the peace of mind that a wider range of people had had the opportunity to have their views heard. In addition it increased the validity of the research which is covered later in this next section because the survey acted as another set of data to use to compare and contrast.

3.4 Theoretical model of a TLC

During data collection some recurring themes became apparent and notes were added to written data to illuminate this for later consideration. I was constantly aware of 'keeping the familiar strange' to ensure that I captured unexpected and unpredictable moments as well as the ones I was expecting. Over half way through data collection I re-organised and re-shaped my proposed model of a TLC demonstrated in Chapter 2 so that it better represented what goes on in a TLC cycle. Further exploration and discussion of the model with fellow students on the doctoral course plus longer time spent in the field led to further adaptations of the model.

When I was in meetings I would separate out the different phases of 'input', 'action planning' and 'sharing of experiences' in my notes, as I knew that I would be looking in more detail at a later point at what was actually happening at those times. For example at the point when the input of knowledge and skills was occurring I ensured I noted the visible reaction of the teachers wanting to record their emotional response, whether they were excited, stimulated or unimpressed for example. When they were sharing their experiences of experimenting in the classroom and the peer observation I knew to listen for words, nuances, clues that indicated that they had learnt something. I was also trying to keep in mind the relationship between the different aspects, for example how did teachers feedback if the experiment had been successful and how this differed if it had not been.

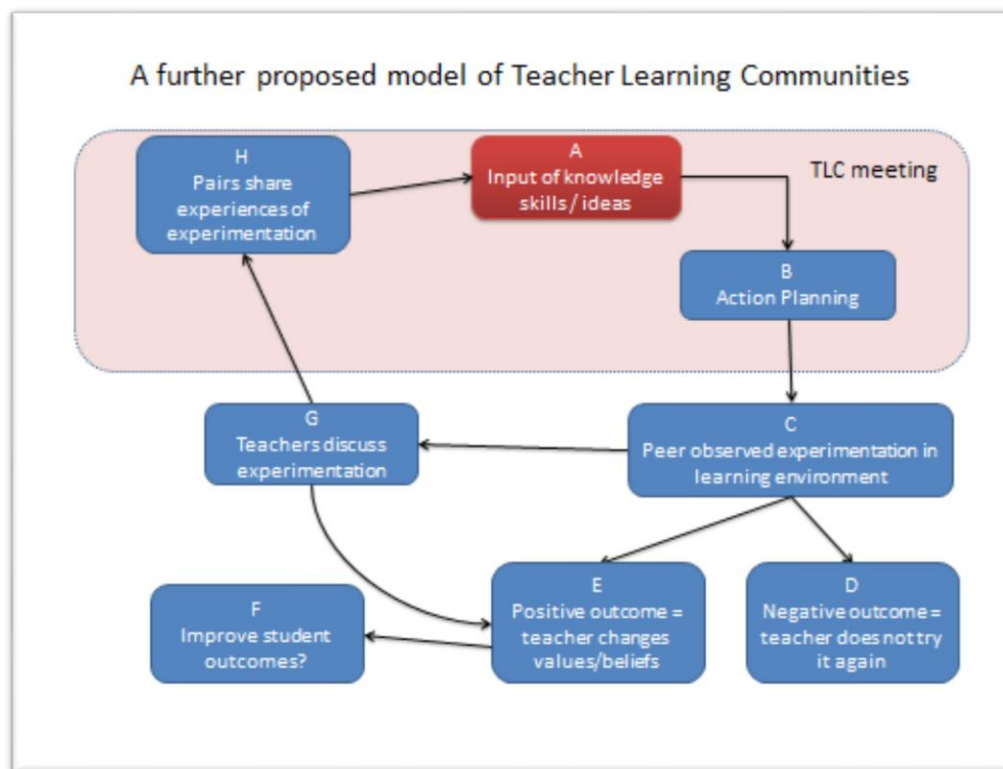


Figure 7: A further proposed model of Teacher Learning Communities

This adapted model begins with box A, shown in red in the figure above where there is the initial input of ideas, leading to the teachers in the TLC discussing and writing an action plan before the idea being tried out in the classroom whilst a peer is observing. This experimentation leads to either a positive outcome where the teacher is more likely to use the technique or idea again or a negative outcome meaning the idea may not be used again. As with the previous model the teachers discuss the idea being tried in the classroom and feedback at the beginning of the next meeting. This model was the one utilised for a large part

of this research. Towards the end of the process a final model was developed and this is presented in the final chapter.

3.5 Data analysis

Analysis of qualitative data is about finding patterns in collected information (Preissle and Grant, 2004) and with ethnographic data the important point is not the words themselves; it is the meaning behind them. This approach provided flexibility to allow the people behind the data to provide the strains of thought or the categories used as I did not want to impose a pre-determined structure and I was not trying to test a hypothesis, rather I was attempting to find out how teachers learnt in a TLC. I therefore used an approach that is consistent with ethnographic data, because ethnography avoids standard methods and allows for theories to be generated, it moves beyond description, the limitations were not known before entering the field and theoretical saturation occurred when additional analysis did not reveal anything new (Pole and Morrison, 2003).

3.5.1 Phase 1 – data analysis during data collection

For this phase the four steps advised by Preissle and Grant (2004) were followed and applied to both the interview transcripts and the participant observation notes. Step one was to read and re-read the data carefully. It was important to ensure that the meeting and interview notes accurately reflected what had happened. For step two, codes were developed that described the chunks of data. This meant that I carefully, line-by-line, went through the data and used a word or phrase to codify its meaning, for example this sentence might relate to 'positive attempt', 'teacher feedback', 'an emotional response' or 'knowledge creation'. Step three required me to combine and reclassify codes into larger categories, for example, codes related to how teachers learnt were put under categories such as 'resources', 'discussions', 'observation' and 'feedback'. Finally, step four was 'systematic structuring of categories into typologies; or classifications based on characteristics, and taxonomies' (Ibid, p.176). Re-reading was informative and was different from reading the data after transcribing because I was comparing and contrasting across data sets and the process allowed categories and themes to emerge, therefore the first phase of coding data was relatively straightforward. The data analysis was iterative and allowed for the reconstruction of the meetings and interviews in an ongoing way.

A flow chart to show the three phases of data analysis

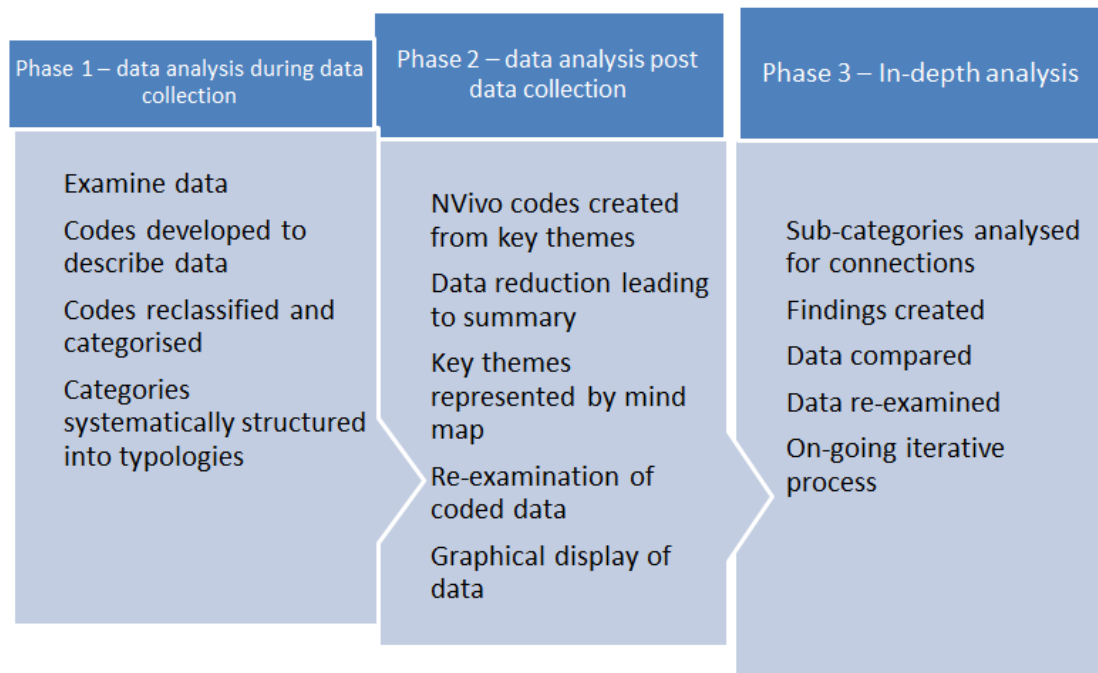


Figure 8: A flow chart representing different phases of data analysis

The first set of data I had was the five pre-TLC interviews and codes were set up which are ways of grouping different sets of data under different headings to aid retrieval and further coding. This was completed using NVivo to aid access and storage of the data. The interview transcripts for the five people who had been involved were entered into NVivo and attributes were added for each person: age, sex, main subject taught, number of years teaching experience and years of TLC experience. This would enable me to use these attributes for comparisons later on. As with most qualitative research I did not start with a pre-existing code-system as I tended to work inductively, generating codes from data (Preissle and Grant, 2004).

The second data set was field notes created from attending the nine TLC meetings, with each coded after every meeting into the nodes relating to emerging themes as outlined above. This meant that if a sentence or a few words related to one of the themes or research questions, I would highlight the text and NVivo would move the text into the node that I indicated. As the meetings progressed over the course of the year, I added some further nodes even though they might not be directly related to my research questions or existing themes. One node was created for each TLC member and after every meeting I coded each individual's contribution so that it was possible to build up a complete profile of each participant.

The third data set was created from the five interviews both before and after the TLC process and the final data set consisted of the creative non-fiction writing. It was important that I kept all of the data appropriately stored to allow for easy referral and further analysis as the volume of data increased.

3.5.2 Phase 2 – data analysis post data collection

After data collection was complete a further data analysis was carried out beginning with data reduction (Pole and Morrison, 2003). In earlier analysis, the data was analysed inductively as the data collection was ongoing to avoid a premature set of categories but in this phase it was analysed deductively as I reduced the data in relation to the research questions. Each category was taken in turn and key themes picked out for example, those that were recurring and/or contributed directly to answering the research questions. Having printed out the category entitled: 'essential elements of TLCs' I quickly noticed that 'observations' was one of the factors that most people had cited in their interviews. Consequently sub-categories were created called: observations, discussion, stimulus and feedback and I went back through the data re-categorising anything that fell into those categories from any of the sources. I then read and re-read the data in these sub-categories and wrote a summary for each. Having reduced the data I then wanted to display the data graphically so that I could see what it said (Miles and Huberman, 1994). Thus I went back through the source folder for each individual, picking out key words from interviews and meetings. A mind map was created to represent key themes that were emerging as it was helpful to both see it and to reduce the data down into summary form and this can be seen in the figure below. Next I looked at all of the data in each category relating to the research questions shown below as it was important to ensure that any relevant data was easily accessible to aid answering each one.

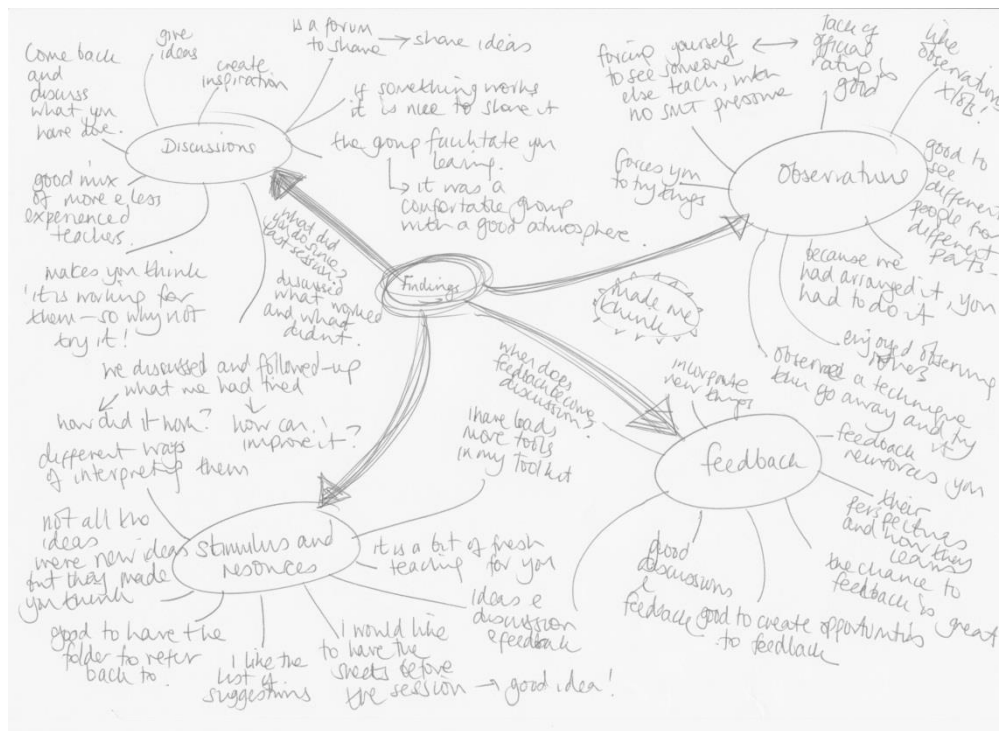


Figure 9: The mind map I created to draw out key themes

3.5.3 Phase 3 in-depth analysis

Dey (2000) suggests that researchers look for connections in and across the data and suggests five categories to look for: concurrence, overlaps, sequence, proximity and precedence. I took each sub-category of observations, discussions, stimulus and feedback and systematically went through line-by-line noting the key words or phrases. These were then brought together (in NVivo) to create findings in the form of sentences under each of those four headings above, all of which relate to the first research question. The process was repeated for each of the remaining research questions and as I started to draw conclusions, data was compared and contrasted to increase validity and reliability.

Some themes that emerged from the data pointed towards the inter-connectedness of various aspects of the TLC. For example some teachers talked about the benefits and usefulness of the resources that were provided in the TLC. This could be interrogated on its own but when comments relating to 'discussion of the resources' were added links between the two could be made and the effect of one on the other was clearer; it was the resources plus in-depth discussion about them that inspired and supported teachers to trying some of them out in the classroom. I noticed the relationship between different points and that made me go back to the model of TLCs that I had reworked and looked at the data in relation to the components of the model. This moving forwards and backwards through the data is described as an essential

part of the iterative process (Dey, 1993). As a result of the moving backwards and forwards through the data, results emerged and were translated into findings.

3.6 Challenges of the research

3.6.1 Validity

Validity is defined as being able to see the world as it really is or in the case of ethnography, being able to present a picture of the lives of the participants (McNeill and Chapman, 2005). Cohen et al. (2003) warn that it is not possible to eradicate all threats to validity and reliability but it is important to minimise them by paying close attention throughout the research. Cohen et al. (2003) detail a number of ways of minimising invalidity which I followed for example, they suggest that data is not used selectively or disproportionately represented. My methods of analysing the data ensured that the themes emerged first. I was not trying to prove a hypothesis like in positivist research and it was important to let the data talk for itself. During transcribing and rereading data I ensured that the message came through in the way it was meant by making sure that the emphasis placed on certain aspects was the same as the teachers had spoken about, I therefore feel confident that all of the claims I make in the findings are sustained by the data and that I reported it accurately and honestly.

‘Validity-rich ethnography needs to be transparent’ (Riemer, 2012, p.182) and the transparent re-presentation of text leads to findings being credible and plausible. I have relied heavily on interview data as this came straight from the teachers themselves and I was checking back on understanding of meaning during the interviews in order to increase the level of validity. I then compared this data with observation data collected in the meetings, the smaller volume of data generated from the surveys my research diary and also the creative non-fiction. This gave me many perspectives and viewpoints and increased the validity of the research. Dey (2000) says that validity means the research can be defended and he also adds that validity is increased when the data is cross-referenced as it improves confidence.

3.6.2 Power relations

A further challenge of this research was problematizing aspects of power within the TLC, with regards the role of the researcher and more widely within the school. Whilst there are a variety of pressures on schools and teachers to ‘perform’ and success being measured by outcomes, the TLC itself occupies a lacuna within the system. The TLC structure provides a relatively hierarchy-free framework in order to minimise the power of any one individual within the group. The group leader, as previously mentioned, is primarily concerned with the smooth running of the meetings. As a senior leader in the school, I had made a decision some

years ago that the TLC leaders should be teachers with relatively little teaching experience, to support the view that as a leader of the group they were not an 'expert'. There were members of the TLC who held positions of responsibility in the school and so were leaders with power, but in the forum of the TLC this power was not ostensibly exercised. Each member contributes equally and listens to others. No one is required to make decisions on behalf of others and the TLC members decide their own future actions. Consequently, the TLC operates in contrast to the pressure that teachers feel under from powerful individuals who lead the school and the power under which all schools operate, as outlined in chapter 1.

In the Best Evidence Synthesis on 'School Leadership and Student Outcomes', Robinson et. al. (2009) claim that the dimension of school leadership that has the biggest impact on student outcomes is 'promoting and participating in teacher learning and development' (p.42). This is significant here as my role as a senior leader in the school, actively encouraging (or promoting) participation in TLCs, in addition to participating in the case study TLC itself, influences colleagues (and ultimately students) in ways that are not possible to measure, but are nonetheless significant. Consequently, I needed to constantly reflect on how my multiple roles were affecting the research, the TLC and the teachers in the TLC.

3.7 Summary of methodology and methods

This chapter briefly describes the meandering journey which has led to an improved understanding of my ontological and subsequently my epistemological perspectives in relation to this research. Once these had been researched and understood I could then clarify the reasons behind choosing social constructivism and an ethnographic case study as paradigms and tools of research. In this chapter I have attempted to explain why I felt that the approaches I used were the most appropriate ones for uncovering how teachers learn in a TLC context.

I have attempted to explain the methods of data collection and analysis in the hope that it clarifies the reader's understanding of what I actually did, in terms of collecting the data and also analysing it throughout and afterwards. The next chapter illustrates my findings from the data, discussed as each point progresses, as this seemed the most logical and clear way of presenting the information.

Chapter 4: Findings and discussion

4.1 Introduction to findings:

The first sections of this chapter document the five main findings that emerged from the data analysis in relation to research question 1 where teachers in the TLC attributed their learning to five aspects of the TLC: trying out ideas; peer observations; resources used; discussion and feedback; and finally metacognition. This is followed by findings and discussions in relation to research questions two to six.

The research questions were as follows:

1. How do teachers learn in an AfL-based TLC?
2. What is the contribution of the TLC to a teacher's professional learning?
3. What are the outcomes of the TLC, for the teachers and for the school?
4. What are the key essential elements of the TLC?
5. What do teachers identify as the strengths and limitations of the TLC?
6. What elements of this TLC and teacher learning from this case study might be transferable to other schools?
7. What were the possible impacts of being a participant-researcher?

4.2 Question one, 'How do teachers learn in a TLC?'

4.2.1 Finding 1 - Teachers in the TLC learnt by trying out ideas

Towards the end of each meeting teachers committed themselves to trying out at least one of the ideas that had been presented and discussed. On some occasions the classroom experiments were observed by a colleague and afterwards the teachers reported back to the group at the beginning of the next meeting. Whilst this is a fundamental part of the process of the TLC it is a key finding because it was an aspect that many teachers referred to as supporting their learning. There may be other aspects of the TLC process that do not support learning or do not support learning to the same extent. Consequently this section relates to the findings regarding the process of trying out new ideas in the classroom.

I learnt through firstly learning about the specific techniques, then reflecting upon them and which ones I could use, then experimenting with them in the classroom and finally evaluating them in the TLC (Suzie, TLC4, survey).

This teacher found it difficult to be specific about one aspect of learning as she attributed her learning in the TLC to a combination of different component parts. This is not surprising as learning is a dynamic and complex process as discussed in the review of literature. Suzie has described a learning process similar to that of Kolb's (1984) learning cycle based on experiential learning where teachers plan what they are going to try then they have a go at it in the classroom, reflect on and learn from that experience, before repeating the cycle again. As stated in the review of literature, Jarvis' model supersedes Kolb's and in this example above these actions result in Suzie being a changed and more experienced person as depicted by box 9 of his model shown in section 2.4.2 in Chapter 2.

During the course of the TLC at least 67 ideas were tried out by the participants and were subsequently reported back on. Some teachers reported that they tried out more than one idea in between meetings so the figure of 67 is a minimum. In order to explore this point further I needed to identify what prompted teachers to experiment. 'Being willing to try ideas' was a phrase used 19 times in answer to the questions: 'How did you learn in the TLC?' and 'What is required for a TLC to work well?' In the survey a total of 11 out of the 12 individuals specifically said that trying out ideas helped them learn practices that were new to them, consequently it was the single biggest factor that teachers reported on when asked how they had learnt.

I learnt by trying out new strategies (Janice, TLC1, survey).

Whilst Janice highlights that it was trying out one of the ideas that supported her learning, if an individual teacher tried out just one idea after each meeting it would equate to eight or nine ideas being tried over the course of the TLC by each teacher. Some teachers said that they tried more than one idea because they liked the sound of it or to see if it could work in their setting and this was usually after a colleague had fed back to the group. Ideas that teachers could use were therefore stimulated and discussed on two occasions, initially when they were introduced in the TLC meeting and also in the next meeting after experimentation. From the ways in which teachers fed back their experiments to the group it certainly seemed as though they had enjoyed trying out new things. In the gaps between meetings they would have had approximately 80 lessons and so trying out one idea with one class may not seem onerous but as Wiliam (2013) says trying new things and changing old habits requires effort and thought.

One of Piaget's salient contributions to the field of cognitive development is that learning through activity is more meaningful therefore the person must be active rather than passive in the construction of knowledge (Merriam *et al.*, 2007). Consequently talking in the TLC meetings about ideas is not sufficient on its own because teachers had to convert the talk into practice, that is physically and mentally experience the idea in their real setting in order to support and realise their learning. Fullan (1995) proposed four broad phases in the change process: initiation, implementation, continuation, and outcome. Initiation relates to the ideas generated through discussion, with these discussions usually the result of the techniques suggested in the pack by Leahy and Wiliam (2007). Teachers saying that they learnt from trying ideas out in the classroom relates to Fullan's (1995) second point, implementation as it is through this process that teachers can learn to take knowledge and turn it into pedagogical content knowledge (Shulman, 1986). This point is corroborated by Elmore (2002) who said that teachers need to learn the skill or knowledge through collaboration and then transfer it into practice so that it has an impact on learning.

During discussions in the meetings teachers may have been willing to try things out but actually converting that willingness into practice requires some barriers to be removed, with one of those barriers being 'finding the time'. Teachers talked about being too busy with marking, report writing and similar school related paperwork. Elmore (2002) states that 'administrative work protects teachers from external intrusions into their isolated work' (p.4) and therefore in order to encourage teachers to actually find the time they worked in pairs during the meeting and agreed a date and time to observe each other. This encouraged the ideas that had been discussed during the meeting to be tried in the classroom, a point illustrated by the following quote:

I heard about a great many AfL techniques that I was then 'forced' to try out, that I wouldn't have tried if someone hadn't been coming to see the lesson or I had to talk about them (Macey, TLCs 1&2, survey).

The majority of teachers felt the pressure to try out new things whether a colleague was observing them or not because they knew they had to feedback at the beginning of the next meeting. This in part was due to the commitment outlined even before joining the TLC. Teachers were briefed about what to expect and because they volunteered to be part of the group they were committed to trying things out. Furthermore, prior to experimenting their individual tacit knowledge had become social knowledge as it was shared and discussed in the meeting and then also at the end of the observation (Eraut, 2009). Through the process of

trying out an idea knowledge becomes self-aware knowledge, heightened through reflection and discussion after the observation and therefore this is new knowledge that they are communicating. It is the aspect of embedding new practice 'on the job' that makes a TLC successful according to McLaughlin and Talbert (2006) and is corroborated by Dawn:

What made the TLC work for me? By having to commit to trying something out, and being asked to reflect on it and feed back to others. With other CPD sessions that are stand-alone, I tend to be inspired and end up trying something once or maybe twice, but I end up being too busy to put the effort into embedding it into my regular practice. This negative cycle does not happen with TLCs, as you need to feedback on it within a few weeks, so you keep the momentum up (Dawn, TLCs 2&3, survey).

Other forms of CPD such as one-day courses that can be off site might inspire and generate new ideas for individual teachers but these are quickly lost in the pressures of school-life. Usually for CPD to be effective on the practice of teachers it needs to be on-going (Cordingley *et al.*, 2005a) and it is supported if teachers have time to transform the knowledge into practice (Timperley, 2008). Dawn uses the word 'momentum' which was also used by others. The TLC meetings happen every month and therefore a momentum and pace can be achieved by repeating a regular pattern. This concurs with Elmore (2002): 'Improvement is a discipline, a practice that requires focus, knowledge, persistence and consistency over time' (p.13). Moreover Korthagen (2010) would suggest that this is theory building through concrete experiences becoming internalised and thus adding to the gestalt and hence widening that gestalt in a cyclical process. He defines a gestalt as a:

dynamic and changing entity [which] encompasses the whole of a teacher's perception of a here-and-now situation, i.e. both his or her sensory perception of the environment as well as images, thoughts, feelings, needs, values and behavioural tendencies elicited by the situation (Korthagen, 2010, p.101).

Similarly, the momentum supports a movement towards self-aware practice heightened by being observed and having to feedback reflectively after that lesson then having to articulate their experience to a peer group. Rehearsing the practice several times in different forms, doing and talking about it, consolidating and embedding it means it becomes tacit knowledge and hence part of the teachers' wider body of practice, Eraut (2000) would argue that the codified knowledge learnt and discussed in the meeting would require further learning to apply it to a different context. The repetition of this process supports teachers' ability to carry out the different stages competently. Finally returning to the words 'forced to' and 'being

made to' perhaps sounds as if there was some level of cajoling or checking up required. This was not the case as the data suggests that teachers *wanted* to try out these new ideas and techniques they had been talking about in the meetings.

To summarise, experimenting in the classroom required teachers to actively try out the ideas that they discussed in the previous meeting. It is not sufficient to learn about and discuss ideas; those ideas have to be situated in the context of the teacher's regular practice (Lave and Wenger, 1991a). Teachers in the TLC had to be willing to try things out and also remove some of the barriers that would stop them such as being able to find the time. There were two cycles that encouraged teachers to try out ideas in the classroom initially as a result of the TLC meeting where the ideas were presented and discussed and then a second cycle when teachers would feedback to the group afterwards which stimulated further interest and motivation to try out ideas. However trying out the ideas in the classroom was not a factor in isolation as peer observations also played an important part.

4.2.2 Finding 2 - Teachers in the TLC attributed their learning to peer observations

All five teachers interviewed before and after the TLC said that the observations had played a key part in why and how they had learned. When considering all of the interviews that were conducted, those five plus previous TLC participants and pilot interviews ten of the 12 respondents spoke about the importance of the observations in contributing to their learning and thus making the TLC successful. Furthermore four of the 10 teachers said that observations were *the* most important aspect of the TLC.

Observations ensured that the planned action actually happened.

The first aspect to discuss is that observations played a key factor in ensuring that teachers actually tried out the ideas to which that they had committed. Teachers said knowing that someone was coming to watch them 'made' or 'forced' them to actually try out the ideas and that they could not just forget about them. Whilst being part of a large school community is very much a social activity once in the classroom a teacher carries out her/his practice in isolation largely away from other adults. The job involves large quantities of social interactions but these would be between a teacher and students and less frequently between teachers. The teachers in the TLC had prior arrangements to observe each other and as professionals were aware of the commitment to a colleague and so the observations largely took place as planned. As one respondent Mark said in an early TLC the formal nature of the observation meant it was carried out:

...because we were observing each other's lessons and that was actually something that you'd arranged to do, it meant that you couldn't just think 'oh I'll do that later' and push it to one side and just forget about it completely...because of everything else going on you don't always get the opportunity to do it and then it can just slip out of your mind (Mark, TLC1&2, Interview).

Whilst this quote reiterates the previous points regarding trying out new ideas and the pressures that prevent that from happening, Mark places a particular emphasis on the aspect of observation and the part that it played in encouraging him to experiment in his classroom. Eraut (2009) said that competence may not always be translated into performance due to a heavy workload or a lack of time and these are two common complaints from teachers (Shakespeare, 1998). However, it seems that knowledge of a forthcoming observation encourages those obstacles to be circumvented.

Observations benefitted the teacher observing

The next major point that was repeatedly made by the teachers was that observing other teachers inspired them to go away and try out what they had seen. Six of the 10 teachers who talked about observations in their interview emphasised the benefits of observing other people. This meant that not only were they presented with ideas and had an opportunity to talk about them in the meetings they actually experienced it by having it modelled to them in situ, in naturalistic contexts with real students (Lunenberg *et al.*, 2007):

It's been really good because I've had experience of working with other people, like watching teachers using AfL techniques in the classroom and I've thought 'ooh how can I use that in my own teaching?' and 'how can I make that suitable for [states her subject] and a little bit more fun and engaging for the kids?' rather than my standard techniques that I've always used (Vicky, TLC4, interview).

Vicky suggests here that observing others encouraged her to think about her own practice which is supported by Korthagen's (2010) definition of gestalts. Observing a colleague in a classroom supports the notion that a teacher can learn through their perception of the situation through images, thoughts, feelings and so on in a situation where they have time and space to reflect on what they are observing. This is also supported by the definition of 'cognitive apprenticeship' as described by Brown *et al.* (1989) where the observer is being enculturated into authentic practices through observing. Three teachers expanded on this point by saying that observing other teachers gave them confidence to try out new things in their classrooms; furthermore, two teachers said they found it reassuring that they themselves

were doing some good things in their lessons and five teachers talked about how they had enjoyed learning from colleagues in different departments and how they had underestimated the value of observations in different subjects because ideas and techniques that they had witnessed could be adapted for use within their own subject.

Moreover it became apparent that the teachers in the TLC were not used to carrying out peer observations and I had wrongly assumed that during the course of their careers this had been a regular feature. On checking with some of the teachers I was surprised to find that they had only carried out a small number as part of the peer observation programme at school. Nonetheless they found the TLC observations less intimidating than they had first thought. Gosling's (2002) Model depicting Peer Observation of Teaching states that if it is a peer observation and therefore non-judgemental the teachers could analyse and discuss the experience both self and mutually reflecting on the experience and consequently teaching becomes valued. When I presented this model back to two teachers one commented that they had not had the opportunity to develop the skills of observation, discussion and reflection prior to participating in the TLC and it would seem that this was one of the most significant aspects of learning in the TLC. The non-judgemental aspect led to teachers enjoying it more and feeling less pressured this differing from formal lesson observations that are judged and graded and that sit within the appraisal process.

Observations encouraged joint-reflection

In answer to the question 'which part of the TLC had the biggest impact on your practice?' Peter answered:

[when you] get others people's viewpoints, coming towards the end of my fourth year [of teaching] you get a bit blinkered and then you think well this is the way it has to be done and then you realise someone else is doing something different and its working for them so why not try it? So it made me be a little bit more adventurous as well (Peter, TLCs 2&3, pilot interview).

Carrying out observations also meant that the teachers were presented with opportunities to talk about aspects of teaching that they otherwise would not have, as Peter's quote above illustrates. It was also soon after the new idea had been tried thus enabling them to discuss an idea which had become real, demonstrating reflection-on-action as described by Schön (1987). Teachers reported that it was useful to self-reflect as well as have someone else reflect with them and consequently it became a joint experience and not just one teacher's isolated experience, concurring with the view that teachers need to have the experience brought to

their conscious attention (Fry *et al.*, 1999). This point is reinforced by Joyce and Showers (2002) who say that both observation and reflection together are one of the five factors that contribute to effective teacher learning, 'teachers who used peer support for mutual problem solving, observations, collaborative teaching and planning were more successful in transferring new skills to their own practice' (Joyce and Showers, 2002, p.3).

In addition, some teachers suggested that one of the benefits of having a colleague observe is that they have a different perspective on the experience. For example one teacher talked about how she had found it useful to hear what the students had said in one part of the room compared to the few that she had spoken to near the front. The observer may be reflecting-in-action (Schon, 1987) on behalf of the teacher and then when they reflect together they can compare their perspectives on what happened. As teachers' thinking skills developed, the discussions in meetings became more complex and questions were asked to find out to what extent it was successful and how it could be improved for future use or for different contexts rather than whether it worked or not. There were two occasions when the observer interjected saying that the teacher was being overly harsh on themselves in their reflection. This seemed to be in part because they did not want to appear over-confident and also because they wanted to gauge the observer's opinion.

It seemed that some teachers were surprised about how much they enjoyed the observations, not just that they enjoyed observing others they also enjoyed being observed; on further probing it would appear that the reason for this was because they realised that the focus of the observation was the learning and the teaching idea being tried out and not them as a practitioner. This excerpt from my account refers to the very first observation in the process:

Seven school days later and my partner is coming to watch. I am mildly grateful that I chose a sheet to give the students [a paper-based AfL reflection technique]. This means I don't have to actually 'do' anything myself, even so, I am still feeling a little nervous (excerpt from 'My experience of a TLC').

Most teachers experienced varying degrees of nervousness or apprehension before observations although they also reported that this decreased over time. As the teachers realised that the focus for the discussion was the idea and its implementation and not them as a professional they became less apprehensive about having a colleague in the room with them. Jarvis' (2006) learning process makes explicit the aspect of reflecting on an experience. Teaching is a social activity and reflecting with another teacher not only maximises its impact

but also helps to deprivatize one's practice (William, 2009) and unearths tacit knowledge making it shared and social knowledge (Eraut, 2009). Overwhelmingly the teachers spoke enthusiastically about the value of being able to talk to colleagues:

Although the observations were a bit of a pain at times to organise, they were well worth it when you got such kind, generous feedback from valued colleagues. The opportunity to talk about teaching and learning with others is invaluable (Dawn, TLCs 2&3, survey).

Teachers commented like Dawn above, that the benefits of observations out-weighed the inconvenience of having to organise them and carry them out. The resultant discussions were deemed to be worthwhile and helpful enough to motivate people to continue doing them.

Carrying out observations proved difficult

Most teachers at some point said that having to find time to do observations or trying to organise the observations in a similar way to the quote above was 'a bit of a pain', with teachers reporting that they felt 'too busy' or that it was such an effort to fit in because it is such a big school it can take 10 minutes to find the right room even if you are on the same site. As nearly all teachers said that they found the observations really useful for a variety of reasons it was also common for them to comment that they wished they had done more, but it was seen as something to do that was extra or on top of their already busy workload. I was surprised by how few observations were actually carried out. It was not a question that I initially asked in the interviews but when one interviewee said she had only done three observations (out of a possible seven) I went back and asked the others. The minimum carried out by one person was two, most people had done three or four and two people had done five or six. This was surprising because in the meetings it had not been obvious or apparent that people had not been observed, indeed I went back over the data from the meetings and found references to when people had been observed and noted that people just did not mention an observation if it did not happen and no one actually said 'no one came to observe me this time' or words to that effect. On closer scrutiny of the data it seems that the biggest factor in preventing people from observing was that they were absent at the meeting before and there is not a structure in place to ensure that people who were not at the meeting are paired with someone (perhaps who also was absent) to observe. Certainly people did not report that they were unwilling to do the observations however there are obstacles as previously discussed.

One of the survey questions asks specifically about the limitations of the TLC and eight of the 11 people who responded to that question mentioned observations; either the scheduling of

them or finding the time to do them:

[the biggest challenge was] finding the time to observe colleagues. Our classes are quite often disrupted by school trips, mentoring etc and sometimes it is just not feasible to ask for time off to observe colleagues. On three Wednesdays I planned to observe a colleague in a free period, but each time...the class was disrupted, so we gave up (Betty, TLC3, survey).

This aspect is exacerbated by two factors; firstly, the school is located across two sites meaning some teachers would have to travel to observe a colleague and secondly, that the school runs numerous enrichment activities, trips, events and such like during the school day and therefore disrupting lessons and the teachers who should be teaching them. Beyond the systems and structures, perhaps there is a cultural barrier too, perhaps asking people to observe each other and encouraging that to happen is too much to ask of the TLC group leader in what is supposed to be a group with a relatively flat hierarchy. Tracking each of the four years that the TLC has run and how many observations were carried out it seems as though the majority of observations were carried out when the group leader was a member of the Senior Leadership Team. By contrast least were done in the two years that the TLCs were led by relatively inexperienced teachers, neither of whom were post holders. Therefore it may be an issue of power and accountability rather than time and pressure. Consequently I took this point to a member of a TLC that I (a member of SLT) ran and asked her what 'made' her do the observations. Her reply was 'you' and in the ensuing discussion she said that it was the thought of turning up to the next meeting and having to admit that you had not done what you were supposed to do, that would have been awkward plus she felt a responsibility to the group, me and herself. On further thinking she said ultimately it was pressure she put on herself but she thought initially that the pressure had come from me. Without removing the logistical and systematic barriers to observations it is not possible for me to establish further what the other reasons preventing people observe each other might be although it would seem to be a complex combination of largely time-related pressures.

Peer observations were less pressured than SLT observations

As stated at the beginning of this section it was the observation of these ideas that provided the impetus for teachers to actually experiment. The power of observing another teacher and the way that the TLC process supports that is summed up by Emma:

...we really did go and see each other teach and that was the part of it [the TLC] that made it so successful, that you're forcing yourself to find the time to go and see

another person teach, with no pressure, it makes you more aware of what you're doing, without the pressure of an official observation. Observing other teachers is one of the most useful things you can do, and it made you do it (Emma, TLC2, interview).

She also draws out two other points; firstly, as mentioned previously the fact that peer observations are non-judgemental unlike other experiences of lesson observations that are carried out by members of the SLT where the teacher is given feedback and the lesson is graded. This process is more about measurement and accountability and less about development. In an SLT observation teachers are given feedback and aspects of the lessons are judged using grades relating to specific criteria with this feeding into the appraisal system and recent changes mean that this is now part of performance related pay, leaving teachers feeling anxious about judgements made. Whilst only two teachers specifically mention the benefits of peer observations, as opposed to those carried out by SLT, several more refer to it less directly by saying they felt more comfortable or more at ease. An interesting by-product of being involved in the TLC as two teachers proudly shared was that it helped and supported them obtaining an 'outstanding' judgement for their SLT formal observation. Secondly, having a colleague in the room makes you more aware of what you are doing. This aspect is covered in the 'trying things out' and 'metacognition' sections of the findings. It would appear that teachers in a supportive, relatively hierarchy-free community of practice feel more at ease and less threatened when observed by their TLC colleagues. By contrast a TLC is a supportive environment where teachers are trying out ideas and not making judgements on overall performance. Thus TLCs sit outside the appraisal process but certainly within the professional development agenda.

4.2.3 Finding 3 - Teachers attributed their learning to the resources.

At each meeting the group members are presented with one side of A4 paper containing between eight and ten ideas as detailed in Chapter 1. These 'techniques' as described by Wiliam (2009) are ways of implementing the overall strategy that is the focus for that meeting, the 'how' part of transforming pedagogy into practice. The ideas are described as the 'carrot' by Wiliam (2009) in that they attract the teachers back to the next meeting.

From the interview data nine of the 12 teachers said that the resources played a key part in their learning and from the survey five of the 12 stated that the resources were important. What was more noticeable was that people said how much they liked the resources; having them plus reading and discussing them in the meetings proved *the* most enjoyable aspect for four and stimulating for a further three. Gareth talked about the resources:

the thing I like the best is, you've got the sheet with the various ideas on it, [and you think] 'oh that's good I can use that', that's the bit that's exciting, and I think it's the motivation to turn those ideas into something in your subject or a more generic sort of tool. I think the biggest thing... is the ideas (Gareth, TLCs1, 2&3, interview).

For him not only is it being presented with the ideas to try it is also about implementing and adapting them. The resources were sufficiently stimulating to inspire people to have a go as described previously. Interestingly 'content' is described as the biggest influence on teacher learning according to Desimone (2009) but only the third most important feature by the teachers in the TLC. Whilst it would seem that content is important particularly in drawing teachers into the group there are many other factors that influence learning in the TLC as this chapter illustrates. Conversely if the content was poor then teachers would soon lose interest and may even drop out.

The resources were also reassuring for some teachers with four people in interview talking about how they were reassured that they were already doing a good job in the classroom because they were already doing some of the ideas suggested on the sheets. By the way that some teachers spoke it seemed as though they were expecting all the ideas to be new even though that has never been explicitly said. Nonetheless these teachers still found the ideas stimulating,

not all the ideas are new ideas but it doesn't matter because it's still making you think 'ooh I could try that' or 'I've forgotten about that one, that's a really good idea' (Sarah, TLC4, interview).

Sarah and others talked about how there is so much to remember and so the TLC helped in remembering all the ideas and techniques that could be used. It is also perhaps significant that the resources were presented in a paper format and not by an expert saying 'this is what I did' or 'this is how to do it'. Teachers have sometimes been on the receiving end of INSET that has put them off because a presenter has undermined their professionalism or patronised their abilities (Kennedy, 2005). This leads on to the next point regarding ideas and resources being separated into manageable sections:

...it just gives it to you in little chunks, that's manageable and you do actually use it rather than having a big book where it's just too much choice (Robin, TLCs 3&4, interview).

Being able to easily access the resources played a big part and was talked about by at least half of the group. Robin adds an interesting point as well, that the TLC supports teachers to break things down into manageable sized 'chunks' and he uses a good example of the difficulties of retrieving information from books which would probably be an activity performed in isolation, in contrast to the TLC where ideas are broken down into themes and discussed as a group. Three teachers talked about how they liked to have the folder with all the resources so that they could refer back to at a later point. Emma who was in the first TLC that started nearly four years ago said:

I've still got the folder and if I'm thinking 'I'm wanting something to use', I will go back at it and [think] let's have a look at something to use, and I do use them (Emma, TLC1&2, interview).

Interestingly, Wiliam (2007) says that the resources are of 'secondary importance' (p.18) and that the techniques are included to 'lure teachers to the next meeting'. Whilst I can understand his perspective I cannot see how the teachers themselves could generate that same level of excitement and opportunity amongst themselves if the resources were not present. I see the resources as playing the role of the 'expert' in the various models of CPD, for example Desimone (2009).

4.2.4 Finding 4 - Teachers in the TLC attributed their learning to discussion and feedback

Survey data shows that both discussion and feedback were the second most commonly cited reasons why teachers learnt in the TLC. The words 'discussion' and 'feedback' were used interchangeably by the teachers in the TLC even though discussion usually means a two-way conversation and feedback would usually be used when one teacher comments and shares observations on another's practice. Of the 12 people interviewed 10 talked about the importance of either or both in supporting them learn. This section is divided into three sub-sections: firstly, I will present the findings relating to discussions that occurred in the TLC meetings when teachers were presented with the ideas to try; secondly, I will present the findings regarding discussions and feedback after teachers had tried things out in the classroom and observed each other; and the final section is concerned with the beginning of the next TLC meeting where teachers shared what they had tried in the classroom and discussed their successes and failures.

Discussions in the TLC meeting about the ideas that had been presented to the group.

In the meetings there was often a section about why the particular aspect of AfL was a good idea for example why ‘activating students as owners of their own learning’ is a way of supporting students in becoming more active in their learning and taking more responsibility. After that some ideas relating to how teachers could implement that aspect of AfL were shared. For the example used above this would include techniques that encourage students to be active learners. The ideas were then discussed either as a whole group or more often in small groups and teachers would share their own examples or expand on the ones presented. This excerpt from my field notes describes the typical atmosphere in a meeting at this time:

Everyone seems to be talking now; these resources have generated some excitement! They don't seem to be challenging [too difficult to take on board], some people are trying to work out how it might work in their subject, some with a particular class, buzzing! (Field notes from TLC meeting 2).

The enthusiasm of teachers for the ideas that had been given to them and for sharing their own experiences generated an excitement and motivation for putting it into practice. On many occasions teachers shared prior experiences if they had tried an idea before, thus turning personal knowledge gained through experience and acculturation into social knowledge (Eraut, 2009). At other times teachers were trying to make sense of it, almost picturing what it might look like in the classroom.

I like the ideas from the sheet...I looked at them...and I would think, 'I have no idea really how I would apply that', and then once we discussed how it could work, I really took that on (Matthew, TLC4, interview).

This concurs with various authors who say that teachers learn most effectively when they are required to engage with the materials rather than just being given them or having them presented to them (Hawley and Valli, 1999). Several teachers talked about the benefits of learning from their colleagues some of whom were more experienced than themselves.

I think it's been really good because talking to new and experienced teachers about what works for them and getting new ideas for myself as well. It's been good because I've had experience of working with other people (Vicky, TLC4, interview).

Another point that the teachers made was that because the resources were about AfL they were interesting and relevant for all regardless of subject or age taught. Therefore the resources acted as a leveller and this supported genuine peer collaboration.

I think it's a really supportive group. I think we're quite lucky that we have supportive colleagues and that helps a lot. You feel open to say stuff even if you say I'm not sure if that's a good idea or not or if that worked well I think everyone's supportive and gives everybody a chance (Bridget, TLC4, interview).

In her proposed conceptual framework for studying the effects of professional development on teachers and students Desimone (2009) discusses the *content focus* and how it influences teachers, followed by engagement in *active learning* and that there must be a *collective participation*. The teachers in the TLC did all participate fully in the group over the course of the meetings and said that they found the group supportive. The group became a community of practice as they have a shared domain of interest, that of AfL, and they shared in the practice of discussion and sharing in order to improve (Lave and Wenger, 1991a).

Discussions and feedback after experimentation.

Reflections on observations are covered largely in the 'Finding 2' section of this chapter; however, there are some additional points to make here. Seven teachers said that they valued the feedback after observations and many talked about how the feedback was actually more of a discussion as the feedback quickly became two-way and a sharing of information rather than a one-way giving of information. They reported that their conversations focussed largely on the idea that had been tried out and whether it seemed to work or not and some teachers reported positively how it made them feel having a colleague speak with them after a lesson. In response to 'How did you learn?' Janice said:

having the invaluable contribution of colleagues observing and giving feedback (Janice, TLC1, survey).

In the survey 'feedback' was the second most popular reason given for why teachers had learnt. Four said that the feedback encouraged them to reflect on what they had done and otherwise their reflection might have been brief or even non-existent, whilst three teachers talked about how they had learnt from others' experiences through these conversations and they had then adapted or changed the ideas to use again in the classroom. At times teachers found it difficult to articulate the process of learning through discussions. Bakhtin (1986) seems to sum up what they were trying to say:

Our speech, that is, all our utterances (including our creative works), is filled with others' words, varying degrees of otherness or varying degrees of "our-own-ness"

....These words of others carry with them their own expression, their own evaluative tone, which we assimilate, rework, and re-accentuate (Bakhtin, 1986, p.89)

Bakhtin makes a key point that what we say is a combination of our own and other people's viewpoints and these are absorbed by the person listening who makes sense of what has been said and then uses this to develop further. For the teachers having someone feedback to them and discuss their experiment, followed by subsequent feedback to the group, supported them in developing the ability to articulate teaching and learning experiences and skill development.

Feeding back to the group

With the exception of the first meeting all other eight meetings began with a feedback section and these were really valued by the teachers in the TLC. Of the eight members of the group that completed the TLC six spoke of the value they placed on the group and how the group had supported their learning through the discussions.

I think it was interesting to hear ideas from different departments and then because there were teachers with more experience and less experience it was good to get ideas (Bridget, TLC4, interview).

Other teachers also said that the discussions inspired them to try other things and importantly the discussion time was one occasion when new knowledge was created. Sometimes it was different versions of themes that teachers had tried, sometimes it was helping people solve the problem of why it had not worked in the classroom and how it could be adapted so that it would be more effective next time.

I particularly liked having the opportunity to discuss different strategies and approaches with colleagues. It was interesting to observe other staff trying out AfL techniques, and useful to have a focussed group discussion afterwards regarding what did and didn't work, different approaches in different subject areas, etc. (Mark, TLCs 1&2, survey).

Learning is both an individual and a social process (Elmore, 2002) and the discussions facilitated learning and knowledge production. Peer support during learning is one of the five key aspects of effective professional development according to Joyce and Showers (2002) and from the quote above it would seem this was an enjoyable process for the teachers in the TLC. Furthermore, I noticed that teachers seemed to be really encouraged by positive affirmations when giving and receiving feedback during the meetings:

I noticed that Sarah had at least four group members say something and probably the same number again make a reassuring noise when she was getting feedback on what she had tried. This seems to boost her confidence as she was sitting up straighter and was definitely more smiley afterwards (Extract from field notes TLC meeting 4).

This is supported by Lave and Wenger's (1991a) definition of a 'community' where members support and encourage each other by sharing stories and experiences. In addition it links to the actual materials that the group were using, where students learn through feedback and guidance and it was noticeable that this very dialogic process was modelled in the meetings particularly as they progressed over the year. Howe (2004) says that peer dialogue and cognitive development share a two-way relationship with each affecting the other. She suggests that much research into dialogue has been influenced by Piaget (1926, 1932), who said that dialogue can promote cognitive growth and that cognitive growth shapes future dialogue in a two-way relationship. Although contributions on the role of dialogue in learning are often attributed to Vygotsky, some authors present a case that both theorists played a role partly because of the similarities in their models of development and also because Piaget influenced Vygotsky's work (Lloyd and Fernyhough, 1999).

4.2.5 Finding 5 - Teachers in the TLC attributed their learning to metacognition

Of the 12 teachers who were interviewed 11 talked about how the TLC encouraged them to think about their teaching and what they were doing in the classroom and this helped them learn and improve. Within this section there were three sub-categories used to explore the aspect of thinking I refer to as 'metacognition' as the thinking involved a variety of reflection, thinking about thinking, self-awareness and other associated thinking skills. The first section is concerned with how the TLC supports teachers to keep thinking about their practice, secondly having their awareness raised and finally, actually thinking differently to before. Firstly, two teachers who were newer to the profession both said that the TLC kept them focused on what they needed to keep doing to improve.

I think because I'm still quite new to teaching and I had my NQT year and I was doing CPD it makes you keep thinking about what you need to do to improve and I think that's really important (Bridget, TLC4, interview).

Teachers spoke in the present tense and as if it is something that they 'just do'. They did not think it was a significant thing as it was just part of their routine and not new. This concurs with Darling-Hammond who points out that thinking, reflecting and solving problems are part

of every adult's everyday life (1997). In contrast to those two teachers and Darling-Hammond a section from my account presents a different perspective:

I am amazed at how in a relatively short space of time I have become so much more conscious of everything I am doing in the classroom. I am constantly reflecting and changing what I do and how I do it. This TLC has raised a level of consciousness I have not experienced since I was training to become a teacher. I have got into too many bad habits and this has made me recognise them and want to do something about it (excerpt from 'my experience of a TLC').

Similarly some others of the more experienced teachers spoke differently to the less experienced ones in that it felt different. Rather than being a continuation of reflecting and thinking about what is done in the classroom more experienced teachers became more acutely aware of what they were doing in the classroom and reflected on how to change and improve. Teachers who are newer to the profession often report that they are used to having people watch them and that they are used to reflecting and thinking about their practice, whereas perhaps more experienced teachers have more deeply-rooted habits that have become sub-conscious as in Malsow's model of skill acquisition a version of which is shown here:

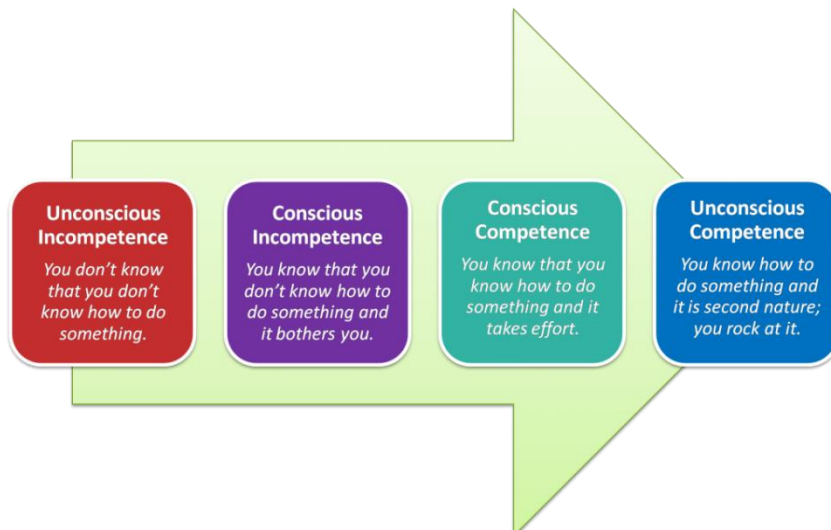


Figure 10: Maslow's model showing four stages of skill acquisition.

Source: <http://stuartjallen.files.wordpress.com/2011/06/maslows-four-stages-of-learning-1.jpg>

Using Maslow's (1940) model showing four stages of skill acquisition teachers who are new to the profession might be at the second stage of 'conscious incompetence' or the third stage of 'conscious competence'. They might be experiencing some levels of success and having to

work very hard at it or they might be aware of aspects of lessons that were not successful. As new teachers gain more experience in the profession most would move along the continuum towards unconscious competence, with the rate at which they move to the final stage varying with the individual and also on the aspect of teaching concerned. The TLC supports some teachers to move out of 'unconscious competence' and reflect on what they are doing in a beneficial way and perhaps the model could be extended to represent this. This difference is reflected in the way that teachers spoke about the TLC and how it affected their thinking, moreover this intricately links with Eraut's (2008) notion of tacit knowledge and the transfer of tacit knowledge into codified knowledge which can be stored and transferred as personal knowledge.

There were eight times when teachers spoke about the TLC encouraging a raised awareness or them becoming more conscious of their actions, all from teachers who were more experienced.

I'm thinking more about my teaching, yes, I do think it has made me a stronger teacher (Matthew, TLC4, interview).

This is supported by Le Cornu's (2005) *holistic model of the process of learning* which includes 'human consciousness and awareness' as an additional layer to Jarvis' model of experiential learning. This layer of consciousness and awareness sits in between the person surrounded by their experience of a situation and a layer consisting of reflection, with the outcome being the person is more experienced and changed both outwardly in what they do and inwardly in how they think. A three-level model proposed by Korthagen (2010) is based on Lave and Wenger's (1991a) work on situated learning, describing how teachers form Gestalts (as described previously) and then through a process of schematization form theories about a situation which through reflection is reformed or reordered.

Five teachers talked about how they were not just more aware of what they were doing but actually thinking about their teaching differently. Robin explained this with an example,

The way I think about things has changed through my experiences. There are definitely things that I do [differently], definitely techniques. So like the 'hinge question', that's a question where the kids have to get the right answer for the right reason, they can't just sort of guess 'oh I think it's that' they have to know it for the right reason (Robin, TLCs 3&4, interview).

More specifically three teachers gave examples of how participating in the TLC had made them more conscious of the questions they were asking and of the wording they were using consequently feeling as though they had improved this aspect of their practice.

It kind of makes you think 'don't always use questioning like that, look at different techniques'. I think sometimes when you're really busy you don't maybe plan, or you don't stop and think about it as much but when you're in a TLC that's what you're there for so you think about it (Bridget, TLC4, interview).

Bridget attributed not thinking about what you are doing in the classroom to being too busy or not planning sufficiently; this sentiment was supported by others and expanded upon further by Bridget:

some techniques are very much set into my practice now. I'm much more conscious of it, I'm much more conscious of trying various different bits and pieces but that was why I decided I wanted to get involved in the TLC anyway in the first place (Bridget, TLC4, interview).

With most teachers teaching for 22 or 23 lessons of the 25 hour sessions in a week plus tutor time, planning, marking, report writing and a myriad of administrative tasks that a teacher has to perform it is easy to see why teachers feel as though they don't have time to reflect and think about what they are doing, in short, teachers do not have time for metacognition.

As discussed above the less experienced teachers spoke about how they were still thinking about and still reflecting on their practice and therefore they are perhaps at stage 3 of Mezirow's model, whereas more experienced teachers were at the final stage of being able to teach almost unconsciously. This could be due to experience, feeling familiar with the materials and the lesson content or may be a survival tactic as teaching is a time-pressured profession and it would be impossible to be thinking, reflecting and making adjustments continuously. In addition teachers might not review their practice constantly because reflecting requires effort. As Lodico (2006b) says: 'As long as our activity glides smoothly along from one thing to another ... there is no call for reflection'. Whilst some teachers may not feel as though their lessons 'glide smoothly' at all the point is a valid one; when a teacher becomes unconsciously competent there is no time nor requirement to reflect. Newly qualified teachers are given extra non-contact time which might present some extra time for them to reflect although for some this time is consumed with surviving the first year of teaching and all the challenges that it presents.

Being involved in the TLC encouraged some teachers to engage in metacognition with the outcome being an improvement in their practice. If metacognition is described as ‘thinking about one’s thinking’ (Darling-Hammond *et al.*, 2003) then some teachers reported that they were thinking about what they were doing, what they had thought of during planning and what they were doing when carrying out experiments. Add to that the reports of reflection and self-correction with the result of improvement and the process matches the definition of an effective problem-solver:

Research has shown that one of the key traits good problem-solvers possess is highly developed metacognitive skills. They know how to recognize flaws or gaps in their own thinking, articulate their thought processes and revise their efforts (Brown *et al.*, 1983, p.41)

Dawn was able to articulate the impact that the TLC had had on her and she felt as though now she had developed those skills she would not lose them:

I am now a reflective practitioner, conscientious and wanting to improve. Even though you might get frustrated and feel like you don’t have the time or space to improve, that will never be knocked out of you (Dawn, TLCs, 2&3, interview).

Interestingly she is a teacher who studied the more contemporary-style PGCE programme where she completed extra ‘critical reflection’ work in order to achieve masters level credits. When I asked her about this she spoke about how learning to become a competent practitioner takes time. Through learning and applying and consciously reflecting one can become a competent practitioner, indeed when I discussed Maslow’s model with her she reflected on her own pathway to becoming an outstanding practitioner and feeling that she only reached stage four with regard to all the tasks that could be carried out by ‘anyone’ or a computer’. Dawn cited things like taking a register, class routines and giving out a work sheet but when it came to taking a step back and looking to see if the class are challenged, engaged, enjoying the activity, or whether they need pushing and such like, she said that she was always very conscious of doing that and that would always be part of her practice. This is not to say that she has not reached the final stage of skill acquisition more that she has a disposition to not allow her practice to become so habitual that it deteriorates.

4.2.6 Conclusion to question one - ‘How do teachers learn in a TLC?’

Question one ‘How do teachers learn in a TLC?’ has been dealt with in the first five sections of this chapter; teachers learn in TLCs through discussing, observing, trying out new ideas,

reflecting and by developing metacognitive skills. In addition to answering the question of how they learn it is useful to consider here what they learn. The main focus of the TLC is that teachers learn a range of AfL ideas and the TLC supports them to embed some of them into their practice, thus it is pertinent to remember a previous point made that learning is multi-faceted and also that in line with my theoretical perspective all teachers will have their own socially constructed learning experiences. Teachers will have their own versions of each meeting each discussion and consequently will have unique learning experiences. In addition to learning some new ideas teachers were reminded of some ideas that they might have already known about and maybe even used previously but had subsequently forgotten. Each individual's learning experience is different and so answering the question 'how do teachers learn in a TLC?' is complex; before the ideas were presented in each meeting the teachers were involved in discussions about *why* there was a need to employ particular ideas or techniques, supporting their learning of the theory behind it and bringing together academia to transfer that knowledge into practice.

Completing the action plan towards the end of each meeting also encouraged the teachers to reflect on what they could do less in the classroom, raising their awareness of some practices that were perhaps outdated or no longer considered good practice, for example 'no hands up to answer a question'. This is a concept that has been presented and spoken about widely for at least five years and yet many teachers still allow students to raise their hand because they wish to answer. When teachers participate in the TLC meetings they learn that if the teacher asks the question and then some students put their hands up to answer the rest of the students in the class stop thinking and therefore stop learning. If the teacher does not allow hands up and randomly chooses a student to answer after an appropriate wait time all students in the class have to think about an answer and therefore all students are thinking and developing. Whilst this is not a new concept the old model of putting hands up is a deeply rooted one (William, 2009) as when teachers were themselves students in school they would have been required to put their hands up to answer a question, as shown in Lortie's (1975) apprenticeship of observation. This example of teachers having the knowledge but not yet adjusting their practice in line with their knowledge, illustrating that changing practice takes time and the TLC can support that transition.

Finally The TLC also supports teachers' learning about other areas of the school and other departments in addition to learning about their colleagues, who might be a good source of information and ideas. There are many examples of learning partnerships that originally

developed in a TLC and carried on beyond because the teachers value having colleagues that they can trust, talk to and share ideas with.

4.3 Question two, 'What is the contribution of a TLC to a teacher's professional learning'?

The creative writing that I did for this research (found in Appendix 2) brought with it a realisation; participation in the TLC had been transformative for me personally as a teacher. I was utilising new techniques, I had embedded new ideas, had changed some old unhelpful practices, was thinking about my practice differently and in short, I was a changed teacher in line with Mezirow's (2000) transformative learning theory. An excerpt from the creative non-fiction writing illustrates this:

This has been a roaring success and not just for me. Individuals in the group share their successes; these are met with woops and cheers from the rest. I reflect on these individuals, some of them I hardly knew before, they have been part of the journey, part of my amazing journey to becoming a different more effective teacher and I hope I have done the same for them. I am surprised by how much we have bonded and got to know each other. There appears to be a mutual feeling that we have all been part of something really special (excerpt from 'my experience of a TLC').

For the teachers in the TLC understanding and being able to articulate the role of the TLC in their professional learning was challenging. One of the reasons for this might be because the interviews occurred soon after the TLC had finished and therefore they had not had much time for reflection. When I asked the teachers who had taken part in TLC4 (the focus of this case study) what contribution the TLC had made to their professional learning they tended to focus on the ideas they had tried out and the new skills they had developed to use in the classroom. This more skills-based response was one of the motivating factors for me to seek out and interview teachers who had taken part in previous TLCs. By interviewing teachers who participated in previous TLCs I could get a different perspective from those who had only just finished participating in TLC4. The teachers from previous TLCs spoke of the longer-term impact including the strategies that had really stuck, techniques they were now using in the classroom on a regular basis. Furthermore they spoke of the TLC in relation to other CPD opportunities they had experienced and they were unanimous in that participating in the TLC was the best CPD they had been involved in. Dawn illustrates that point:

It's the only CPD I've done that's had a long-lasting positive effect on my practice, because you have to go back to it, you have to reflect, you have to have done what you have committed to do, someone comes to see you and that's lovely and the people that choose to sign up for it are the sort of people who are going to give you constructive criticism and help you evaluate it (Dawn, TLCs 2&3).

The majority of teachers from both groups said that the TLC had improved their skills either in the classroom or in relation to reflecting, discussing and feeding back whereas it was only the teachers from previous TLCs who placed it in a wider context. This may be in part due to the nature of reflection over time and perhaps also having other CPD experiences with which to compare the TLC. When these teachers were talking in interview there was a certain level of nostalgia for them recalling their experiences, they seemed to miss the social nature of the TLC and the opportunity to talk about teaching ideas.

4.4 Question three, 'What are the outcomes of a TLC, for the teachers and for the school?'

Although this question has been covered in previous sections of this chapter, there are a few points to add here, for example, the teachers have a better understanding of what AfL is, why it is important and ideas of how they can improve the effectiveness and frequency of AfL in their classrooms as stated by Suzie:

I think it's made me kind of clearer on the wide range of things that you can do to incorporate AfL into lessons (Suzie, TLC4, interview).

A positive experience in the AfL TLC is also more likely to encourage them to try out other TLCs that are offered and therefore, if a teacher participates in TLCs year after year their skills, thinking and practice will improve. They are also less likely to forget new ways of teaching and revert back to old habits. A key factor from the findings is that important skills are developed and practised. The ability to critically reflect on one's own practice; to habitually pause and reflect *whilst* teaching to then be able to adapt and change the lesson plan based on the students' responses; to be able to observe other teachers and support them in their professional growth and development; to practise and develop the skills to articulate what excellent teaching is, what it looks like and feels like; these are all essential skills in developing as a teacher and as a professional. For teachers who do not participate in a TLC it is difficult to see where and when they will be able to develop and practise those skills.

It is important not to underestimate the support, camaraderie and friendships that develop from participating in TLCs. Many teachers talked about the benefits of getting to know colleagues that they had previously not known very well as in a large split-site school feeling isolated and lonely can be an issue.

I think the group that were doing it made a big difference, because everybody got on well and there was a lot of communication within the group (Tony, TLC1, interview)

Participating in the TLC may also bring benefits to some teachers because the future leaders of the TLCs come from the group. Five teachers have volunteered and had the opportunity to lead various TLCs as a result of being a participant and receiving the support of their fellow group members to do so. Additionally, teachers who have been involved in the TLC are asked to participate in and lead INSET sessions, workshops and presentations for their colleagues as this is good professional development for them individually and also helps spread the positive messages that come from the TLC. One teacher was very clear in explaining to me how being involved in a TLC had significantly contributed to him obtaining promotion in another school. He talked about how he had the ability to articulate what outstanding teaching looked like, what impact it has on the students and how he could easily back that up with examples that he had tried and he was able to show how planning and teaching a lesson as part of the interview process had been easier due to the folder of resources he had obtained from the TLC. Whilst clearly this was to his personal benefit it may not have been to the benefit of the wider school community and there has been at least one other colleague who also attribute their promotion to membership of the TLC.

As described in the introduction there has been a large cultural shift in the attitudes amongst teachers towards CPD as teachers can see the benefits of school-based CPD and this attitude has translated into participation and enthusiasm for school-based, long-term CPD.

I love doing stuff like that because I constantly want to be better, most people are like oh gosh another course another this, that and the other but I love it. I love going to meetings and listening and because I do enjoy that, so I think I'd happily do the year again I would want to and I think it would be beneficial to just refresh, I would like that (Emma, TLCs 1&2, interview)

In the school the number of external, expensive one-day courses that teachers go on has decreased over the past five years, with the courses that teachers go on tending to be run by

exam boards to give feedback on exams. Observing colleagues in different departments encourages good practice to be shared across the school which enables all teachers to be able to have excellent teaching and learning modelled to them, whilst sharing across departments also encourages more appreciation for other areas and the challenges that different individuals face. Similarly colleagues within a department can benefit if one member has participated in the TLC as they can listen to shared experiences and influence schemes of work. This results in more AfL being written into schemes of work and lesson plans and therefore increasing the possibilities of it happening.

4.5 Question four, 'What are the essential elements of a TLC?'

This question can be answered from the two perspectives or the practical elements and qualities of the group and group members and I shall address the latter point first. When I asked the teachers what they thought were the essential elements of a TLC they listed many characteristics and qualities required of themselves and their colleagues in the group. In order of most cited they said that teachers needed to be willing participants; willing to turn up to all the meetings and fully participate in them, followed by being willing to try out new ideas, reflect on them and subsequently discuss them. Furthermore colleagues needed to be open to new ideas and suggestions from others and in addition to being willing, teachers also needed to be comfortable and/or happy with being observed as that was a key part of the process. As Dawn states below, teachers need to have a focus on student improvement and a desire for their own practice to improve for the benefit of the students that they teach,

[Essential elements of TLCs are:]...Willing and keen participants. The participants must be reflective, and have a strong desire to improve. They should also have the students learning at the focus of everything they do. Participants should be committed to the group and willing to put in the time and effort. They will reap the rewards! (Dawn, TLCs 2&3).

It is clear that teachers felt motivation and willingness were key characteristics for a successful TLC. In addition to the attributes of their colleagues, teachers also talked about the TLC itself needing a clear structure and purpose and that the group work well together and communicate effectively. They felt that this was achieved when everyone was committed to what they were trying to accomplish and showed this commitment by attending every meeting. Finally four of the 12 teachers talked about the fact that the TLC lasts for a year or more. This was deemed an essential element for keeping the momentum going over a period

of time necessary to embed new practices. In addition teachers also spoke about the importance of striking a balance between feeding back and everyone getting a 'fair' turn as they felt it was important that there was the right amount of time left after feeding back to discuss the new ideas.

On a practical level the TLC works effectively if there are between eight and twelve members as this ensures that there are enough people to contribute, even if one or two teachers are absent from a meeting and also ensures everyone gets an opportunity to feedback in a meaningful way. Teachers liked the routine of monthly meetings and knowing that it would take the same format each time, for example, the starter activities are cleverly designed and supported teachers in switching off from the school day and helping them to feel excited about the meeting ahead. As noted in my field notes:

*Great starter, everyone buzzing. Must remember to use that in other meetings!
Amazing how teachers can transform from being tired and lethargic to being ready and raring to go in such a short space of time (Field notes from TLC meeting 4).*

The attitude of the teachers, the venue and the TLC structure all play their part in making the TLC successful plus one final remark, 'essential elements of a TLC?' answer: 'cake'! Quality refreshments of course do only play a small part but they are nonetheless valued.

4.6 Question five, 'What do teachers identify as the strengths and limitations of a TLC?'

The strengths that teachers talked about were the five main headings in the first section of this chapter as in observing each other, discussing teaching with other teachers, trying out new ideas and reflecting and thinking about practice, however the overwhelming response to the limitations was a lack of time with teachers finding it very challenging to make the time to observe each other to add AfL to their lesson plans and time to attend all nine meetings. Some teachers suggested a further limitation was that perhaps the teachers who would benefit the most from joining a TLC were the ones who do not volunteer to join, clearly that is a challenge for the school to address and is a point that I return to in the conclusions chapter.

4.7 Question six, 'What elements of a TLC and teacher learning from this project might be transferable to other schools?'

Potentially all elements of the TLC that were used for this case study could be transferable to other schools, a point supported by Mark:

Everything about a TLC is easily applicable to other schools. The only real barrier is the culture within the staff. If they are prepared to try new approaches and willing to put time and effort into developing their teaching then the TLC approach should be effective (Mark, TLCs1&2).

It is interesting that Mark points to 'culture' as a barrier. This could mean the attitude of teachers to their own professional development, their priorities for improvement, the schools culture towards development and of course policy. In addition one teacher talked about how a school could change the focus to suit the needs of their teachers and one talked about how other schools might want to have a department specific focus if they had a particular department that needed improving.

Having presented my model of TLCs to various groups of people for example CPD co-ordinators in local schools and senior leaders at a national conference, generally the feedback I have received has been very positive.

4.8 Question 7, 'What were the possible impacts of being a participant-researcher?'

The possible impacts have been discussed in most chapters so far; in the introduction chapter where I discuss my role and power dynamics, in chapter 3 and my involvement in the data collection phases as both a participant observer and interviewer and also in the conclusions chapter next, where I return to the issues of power and its possible impact on the meetings and the TLC participants. It is worth reiterating here the creative non-fiction writing (seen in appendix 2), was included as a data set in order to ensure that my voice as a TLC participant, albeit in a prior TLC had a place in this research. As a teacher transformed by participating in an AfL TLC I wanted to present that as a perspective and a stand point both to facilitate the reader in understanding the impact of that TLC on me as a teacher, but also to enable me as a researcher to distance myself from it. This data set was then drawn upon in this section at appropriate points, but also sat outside the data generated by the teacher participants.

4.9 Conclusions

The main findings were that TLCs encourage teachers to develop the skills of observation, discussion, reflection and feedback, whilst taking part in a TLC and for some teachers this is also extended to include metacognitive skills. Teachers learnt how to put a range of AfL ideas into practice and had a better understanding of what AfL is and why certain strategies are beneficial to students in the classroom. In the final chapter I discuss some of the issues raised further to draw out some conclusions and finally draw the writing of this research to a close.

Chapter 5 Conclusions

5.1 Introduction

The scope of the research was tracking a TLC over an academic year with additional data relating to previous TLCs. Although the focus of this particular TLC was AfL, the findings can be of use with regard to other TLCs in our school that have a different focus such as differentiation or questioning. Furthermore, this research might be of use to other schools that currently run or wish to run TLCs in the future. As a school we invested in a pack of resources produced by the Specialist Schools and Academies Trust authored by Dylan Wiliam and Siobhan Leahy (2009). The pack suggests that if teachers participate in the TLC then they will learn and they will be more effective practitioners but I wanted to know how teachers learn and what impact the TLC actually had on them.

This chapter begins by drawing conclusions from the main findings in this research with regards to teacher learning in a TLC and the key outcomes of this learning in relation situated learning, communities of practice, workplace learning and also Desimone's (2009) model of CPD. Next, I re-visit my model of TLCs and present an updated version which was developed as this research drew to a close. The emotional dimensions of TLCs are discussed, as this emerged as an unexpected theme and is of particular importance. A section on the limitations of TLCs is followed by how schools as institutions constrain learning like that found in TLCs and this is followed by suggestions for future policy decisions and then recommendations for further research. I conclude with the impact that this study has had on me, the school I work in and the future of CPD.

As stated in the review of literature, learning is a complex process and therefore stripping it down into its component parts means that it is difficult to attribute the development of teachers to a specifically identified factor; rather it is the contribution of the entire component parts interacting with one another that facilitates learning to occur. However, for the purpose of this research I addressed separate parts in the findings chapter and will continue to do in this one. Furthermore, it is important to reiterate that people learn different things and at different rates even when they share the same learning opportunity (Eraut, 2008).

5.2 Teacher Learning in a TLC

My first contribution to knowledge is that teachers learn in a TLC, as during the TLC meetings participants are presented with ideas and these ideas stimulate the teachers' thinking in a variety of ways. Firstly, teachers think about why they should try it out in their own classroom and begin to imagine what that might be like. They think about the possible outcomes for students as that is the motivator for trying it and they think about which group to try it out with, why that might be the most suitable and about how they might need to adapt and change the idea to suit their specific setting. This thinking is supported by discussion usually in pairs or small groups, generating further ideas and adaptations; collaborating in this way leads to both excitement and reassurance that their experiments in the classroom will be successful or at least potentially successful. Working together in a TLC highlights a crucial part of situated learning as it locates, 'learning squarely in the process of coparticipation, not in the heads of individuals' (Hanks, 1991, p.13). Whilst this viewpoint is contrary to that of the cognitive psychologists (see for example Cobb and Bowers, (1999)) as Korthagen (2010) would argue they are two ways of viewing the same thing. Whether the learning takes places within the person's head or in the social situation or a combination of the two is less relevant, what is important is that teachers learn in the TLC by discussing and sharing ideas. In TLCs, individuals are not just taking away abstract knowledge that they will transport into their classrooms at a later point. Instead, teachers learn the skills to perform by engaging in related discourse, thus learning through talk, a concept that was stressed by Vygotsky (1986). Lave and Wenger (1991a) would argue that this is where learning takes place because understanding and meaning-making are defined in relation to specific actions within certain contexts. Therefore, teachers need to discuss and share how they are going to apply the idea into their own particular subject area with a specific group or class in mind in order to learn and to be able to understand that idea in action. The generation of new ideas and new knowledge occurs at this point *because* the learning is socially situated, indeed the richness of learning that occurs would not happen if teachers were working in isolation.

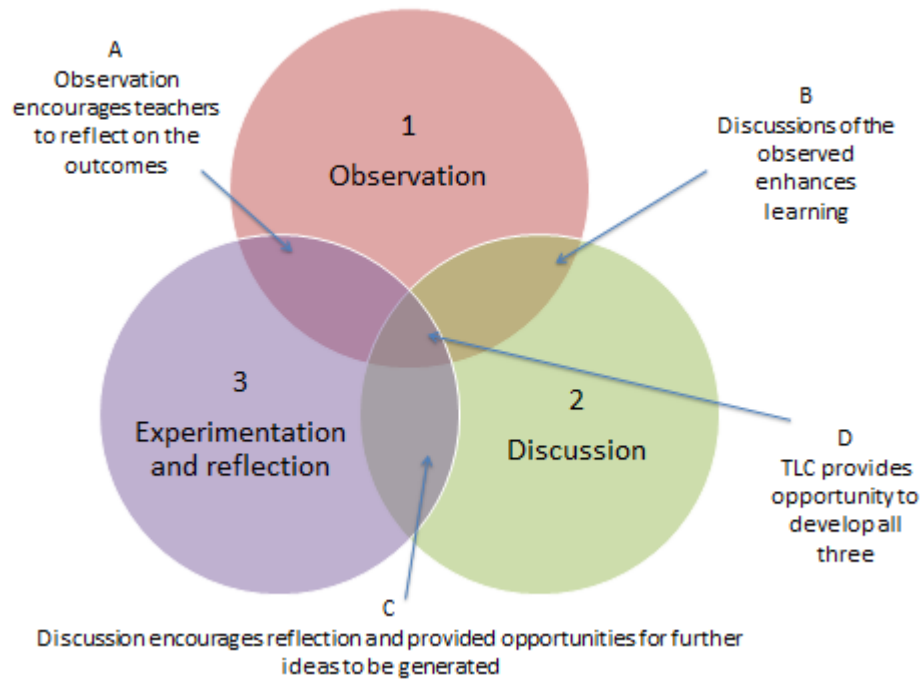


Figure 11: A diagram to show the interrelationships between observation, discussion and experimentation and reflection.

My second original contribution to knowledge is that teachers learn in a TLC by developing and practising skills of observation, discussion and by reflecting on their experiments in the classroom. The crucial point is that this process of the TLC is the centre of the learning process as illustrated in figure 16 above, which presents a theorised version of the TLC process as analysed through this thesis. The diagram illustrates the inter-relationship between different aspects of learning that are developed as it shows the three key factors which together bring about cognitive processes that support teachers' learning. Circle 1 represents all of the observations that the teacher does of their colleagues and also the occasions when they too are observed by someone else. Circle 2 represents the discussions teachers have both in and beyond the meetings which might be related to the experiences of trying out, observing others and adapting ideas for their own setting or similar. Circle 3 represents the occasions in the classroom where the teacher tries out something new or an adaptation of something that they have tried before and they then reflect on that during the process and afterwards.

Teachers experiment in the classroom and then have to reflect on what they tried because they know that they have to feedback to the TLC group at the next meeting. The process in itself supports learning but is enhanced if they have been observed by a colleague (segment A on the diagram). This intersection was reflected in the findings when teachers spoke about the

raised level of consciousness in the classroom when they were being observed, although the resulting discussion might not occur, if for example the observer had to rush off at the end to go and teach a lesson. Despite this the observation is still advantageous, as the observed teacher would be encouraged to experiment knowing that they would be observed and again this point was made in the findings. Segment B represents feedback of the observation but perhaps the teacher's reflections are not shared or taken into consideration. This might happen at the beginning and then move to segment D or on some occasions the teacher might not have the opportunity to reflect and just be given feedback such as a SLT observation (outside of a TLC). Segment C represents discussions relating to the experiment and the teacher's own reflection of it but in the absence of observation; whilst this is still useful, there is solely the teacher's perspective regarding how successful it was. Finally, segment D is where the teacher has experimented, they were observed and they have discussed the experimentation and this could occur between the two teachers or amongst the whole group at the beginning of the next TLC meeting or both. This is the ideal situation and maximises the potential for learning because having tried something new the teacher can reflect and receive feedback on the outcomes and the impact on students and this will lead to them wanting to experiment further, becoming more confident and embedding new teaching ideas. Crucially this is where learning is maximised and cognitive processes are optimal because all three factors are present. The effects of these three aspects of observation, experimentation and discussion are magnified when these three conflate in the middle segment in the TLC meetings and this is due to a larger number of teachers being able to share ideas, possible adaptations, offering reassurances or supporting the process of reflection. Winch et al. (2013) identify three aspects of a teacher's professional knowledge, 'situated understanding, technical knowledge and critical reflection' (p.3) in a report which was published after the diagram above had been created and discussed yet there seem to be similarities. Technical knowledge can be developed through discussions with other teachers in the TLC, situated understanding comes from trying out things in the classroom setting and critical reflection as has already been stated, plays an important part in teachers' development.

The diagram above also demonstrates that learning can still occur even if one or more of the factors are missing for a short time. It demonstrates both the flexibility and robustness of the TLC process. Learning can still occur when other unexpected events happen, such as a teacher not being able to observe a colleague at the last minute when they have been asked to cover another lesson and it can also incorporate teachers learning different things at different rates. Although it looks like a simple diagram the learning processes it represents are very complex

and multidimensional. In Eraut's (2008) description of the nature of professional practice he refers to four aspects of performance: situational understanding, decision making, action and metacognition. He developed a table that shows the interactions between time, mode of cognition and type of process which (see Chapter 2, page 29) but it takes on a new meaning here. Teachers function largely in the instant/reflex and the rapid/intuitive columns because they are so busy juggling the many facets of school-life and therefore the column headed 'Deliberate/Analytic' furthest to the right represents one of the key advantages of a TLC. It provides teachers with the situation, mechanism and consequently the time to be deliberate and analytical about their work. Through discussions with other teachers both in and between meetings they analyse and review their work, plan interventions, review them and evaluate them in the group. Eraut says that as more time is spent in the deliberate/analytic mode of cognition people move beyond...

...self-awareness and monitoring to include the framing of problems, thinking about the deliberate process itself and how it is being handled, searching for the relevant knowledge, introducing value considerations etc. (Eraut, 2008, p.8).

This was one of the notable differences between teachers who took part in the TLC that was the focus of this case study (TLC4) and the ones who had taken part previously as teachers, who had experienced the TLC previously, could reflect on the metacognitive skills that were used and developed in the intervening years. They could talk about the importance of reflection and how they viewed their practice differently now (see quote from Dawn in findings chapter for example in section 4.2.5), whilst the newcomers focussed more on the skills that they had developed in the classroom in that intervening period. This is not to say that the TLC is not useful for the newcomers, but it reinforces the need for teachers to be focussed on CPD over a longer period of time in order to give time for metacognitive skills to develop. To conclude teachers learn in a TLC by thinking, discussing, experimenting, observing and reflecting over an extended period of time.

Returning to the proposed conceptual framework for studying the effects of professional development on teachers and students as presented by Desimone (2009), it would seem that TLCs provide all five of the core features of professional development that she identifies: content focus, active learning, coherence, duration and collective participation. Desimone (2009) argues that a 'compilation of evidence in the past decade' (p.184) points to content focus as *the* most influential feature. Content could refer to subject specific information or to content related to an aspect of teaching and learning such as AfL or questioning. My findings

are supportive of this notion as teachers repeatedly talked about the importance of the resources and the contents of the pack, however I could not conclusively say that content was *the* most influential factor as whilst it was for some teachers, other teachers found it too difficult to separate out the different components. Although 'content' does not feature as a component in Fig.16, it is an important stimulus to support experimentation that can be observed and discussed. For the second point of her model Desimone describes 'observing others and being observed' (p.184) as characteristics of *Active learning* and once again the teachers in this study reinforce her claims that this increases the effectiveness of the professional development. The third aspect is *Coherence* in that the learning should be coherent with teachers' knowledge and beliefs, indeed the concept of AfL was one that the teachers were already interested in and they volunteered to be part of the group because they wanted to be supported in implementing more ideas and strategies to support their use of assessment. The fourth aspect is *Duration* in both length of time and hours dedicated to it, with this TLC lasting for one academic year although some teachers opt to continue for a further year; Desimone cites 20 hours or more as the optimal amount of time dedicated to CPD. The TLC would equate to approximately that amount due to the meetings plus the time taken to plan, try out new ideas and to observe others. This is a significant amount of time the teachers are dedicating to their own development compared to some other CPD models.

In the findings chapter I presented the teachers' comments about how they valued the momentum over the year. This is because the meetings are monthly and not half termly as is more common in our school for other types of meetings. *Collective participation* is the final component; at our school the teachers come together from different departments but share commonalities such as age range taught and knowledge of the school and its culture. All of these components together lead to an increase in teacher knowledge and skills and/or a change in their beliefs as depicted by the second box from the left in Desimone's model (shown on page 20). She would conclude that because the TLC contains all five core components of professional development it is therefore effective. My research supports Desimone's views both in what the teachers reported and from my experience over four years. In the evaluation of the TLC all the teachers were able to articulate positive change to their instruction to use Desimone's terminology and therefore using this model I suggest that there was probably improved student learning. The techniques put forward by Leahy and Wiliam in the pack come from strategies they claim have been proven to be effective in previous academic empirical research, therefore provided the teachers actually carried them out as intended then the outcome should be improved student learning (Desimone's final box on the

right). However as this aspect was not in the parameters of my research design, I cannot therefore draw these sorts of conclusions. That said, the impact of the AfL techniques on students were largely the focus of discussions, both in the meetings and between teachers outside of meetings. It seems obvious to state it, but when feeding back on the use of an idea or technique, teachers used examples of how the students reacted, such as what the students said or did in response to the new technique as a gauge of whether it was successful or not. Desimone refers to 'increased teacher knowledge and skills' in the second from left box and to explore this more deeply it is useful to conflate her model with Eraut's (2009) *typology of learning trajectories* where he presents eight categories that he calls 'types of knowledge'. They are: task performance, awareness and understanding, personal development, teamwork, role performance, academic knowledge and skills, decision making and problem solving and finally judgement. It would appear that there are aspects of learning involved in a TLC that would include all, or nearly all, of those categories. Furthermore, a key category is 'academic knowledge and skills' where the TLC has increased teachers' knowledge of research and encourages theoretical thinking. Eraut (2008) states aspects such as 'disposition to learn and improve one's practice' (p.8) under this category; TLCs support teachers in developing that disposition.

Teachers' developing theoretical thinking is receiving a notable quantity of attention in part due to the national agenda of 'Teachers as Researchers'. The school used in this case-study is a strategic partner in a Teaching School Alliance within which five strands are being developed: Initial Teacher Education, School-to School Support, Leadership, CPD and Research and Development. These strands are imposed by the National College as areas that Teaching School Alliances must develop for all and with all schools across their area. Whilst 'Research and Development' is a discrete strand it straddles the others as they all depend on research to inform current thinking and direction. Cordingley recently published a report that looked into the contribution of research to the professional development of teachers, summarising findings from several systematic reviews and highlighting common characteristics of effective CPD (Cordingley, 2013). At a recent presentation at the University of Sussex, McLaughlin claimed that educational research is imperative as 'it is how teachers learn best' (McLaughlin, 2014, p.3). In the United States there is an intermediary body known as the 'What Works Clearing House' whose mission is to bridge the gap between research and teachers and 'be a central and trusted source of what works in education' (Constantine *et al.*, 2013), although this seems to be at odds with the attempts in the UK to support teachers in becoming researchers through engaging with researchers and universities. If there is a body that will bridge the gap

between teachers and research then the two will not even attempt to move towards working more closely together. McLaughlin (2014) suggests that the university plays the role of the research mediator between teachers and research which would seem like a sensible way forward. Perhaps engagement in the TLC for the teacher participants may bridge the gap for some of them resulting in them feeling more able to engage in research-based learning in their classrooms. Wiliam (2009) may well argue that the training and pack relating to the TLC is an example of school-based CPD can be used to mediate both the teachers' and the researchers' spaces.

5.3 Key outcomes

In addition to the learning in a TLC, another outcome for teachers is that they develop an appreciation for other teachers' subjects and roles, for example a colleague commented that they had no idea that teaching art was so technical they thought it was just a case of saying 'here is the paint, off you go'. Whilst this is quite an extreme example it illustrates the point. I have been in TLCs with teachers of drama, PE, business studies, special needs plus others and I have known many incidences where a colleague thought that a different subject was somehow easier than theirs to teach. Having an appreciation for each other's subjects could ultimately lead to everyone in the school feeling part of the wider professional learning community and working more collaboratively and less in isolation. As already discussed in the findings chapter there are also other professional development opportunities for teachers who participate in TLCs such as leading a future TLC, presenting a workshop at an INSET day or for our annual teaching and learning conference.

Whilst individual teachers benefit from TLCs then collectively the whole school does too. In addition to the points already made in this section the school will benefit in a variety of other ways, for example a culture of teachers engaging in more effective, longer-term, collaborative professional development has already begun to spread. Other similar CPD opportunities are available and there is an expectation that everyone engages in CPD that is long-term and has an impact on them. For the school year of 2013-2014 teachers can choose between a number of CPD pathways, three of these are TLCs that focus on AfL differentiation or questioning; additionally teachers can join: 'teacher triangles' where teachers work in threes to focus on learning; the NCSL 'Outstanding Teacher Programme' or 'Improving Teacher Programme'; or they can create their own style CPD model as long as it fits similar criteria. It has been said that there has been a dramatic and positive transformation of the culture and attitudes towards CPD and the provision of it over the past few years with teachers wanting to engage in self-

improvement. This is in stark contrast to the one-size fits all 'Baker Days' of the 1980s as described in the literature review.

A TLC is a CPD programme that provides teachers with a structure that generates ideas, supports the implementation of them in the classroom, provides opportunities for both peer observation and formal and informal discussions that support collaboration and potentially transformative CPD. TLCs map out a journey over one academic year or more where teachers discuss ideas, try out new things and report back on successes and failures. It is designed to be a hierarchy-free structure to support honest reflection and feedback therefore minimising pressure for the group members to feel as though they have to report positively about their experiences. All the participating teachers begin as 'apprentices' in the community of practice (Lave and Wenger, 1991a). Furthermore, there is no actual 'master', although the written resources perhaps act as such and the first few sessions (and in particular the very first session) act as a way of moving the teachers from legitimate peripheral participation to central participation (Lave and Wenger, 1991a). This is key in supporting them to learn over the rest of the TLC because teachers feel safe in making mistakes and therefore are more likely to experiment, as this quote from Cordingley confirms:

This evidence suggests strongly that sharing the risk of looking silly, as teachers abandon familiar routine to try something new, helps them to trust each other quickly (Cordingley, 2013, p.5)

Whilst Cordingley is referring to teachers trying out new ideas generated from research the essence is the same as if teachers trust each other they are more likely to try things out and consequently learn from that.

Further reflections on essential elements of a TLC come from a practical perspective, as referring to the model of TLC above it is essential that teachers in a TLC are provided with ideas to stimulate discussion. This is despite the participating teachers having a wealth of experience between them. One reason for this is that they do not want to be portrayed as the expert although once the ideas have been shared in the meeting teachers then feel more comfortable about sharing their own ideas and experiences. Also if one teacher were to be leading the TLC and actually present the ideas (rather than just give the pieces of paper out) even if they were not their own ideas then some teachers may not be so open to the suggestions as we have seen frequently on INSET days. Thus the ideas being presented on a sheet of paper reduces the emotional anxiety for individuals and the group, as no one is

putting themselves forward as the expert who knows everything. The flatter hierarchy is significant in creating a climate of peer support and mutual risk-taking that could be jeopardised if the group was led by an expert. In some meetings the presentation of the ideas on paper came after an input on pedagogy, for example considering why a particular strategy would improve student outcomes and then the ideas would serve as a starting point of how to put this into practice. A further essential element of the TLC is the passion and enthusiasm of the teachers as shown when speaking about the ideas even some years after participating in the TLC, a point reinforced by my experience of trying to set up other TLCs and their subsequent failure due to the resources being inadequate. In one particular example I asked a colleague to write the materials and then she led the TLC where the materials were presented meaning that teachers found it difficult to say 'that was not a good idea, that did not work for me'. Lave and Wenger (1991a) suggest the need to separate the learning curriculum and the teaching curriculum. Using their definitions the resources provided in the TLC would be considered the teaching curriculum and the discussions as a result of them would be the learning curriculum. Whereas the teaching curriculum remains stable each year the TLC is run the learning curriculum will vary as the discussions would be unique to each TLC. This is one of the reasons why some teachers decide to participate in another TLC the following year despite having the same teaching curriculum.

A further essential element is that the participants need to be motivated and willing to be involved'; a Deputy Headteacher from Devon contacted me to ask why the TLCs that he had set up were not working and after a lengthy discussion and a visit to my school, he concluded that the key factor was that the ones we run are voluntary and the ones he set up were compulsory. In the interviews teachers spoke passionately about both the importance of their colleagues wanting to be there (see for example, Appendix 4, the transcript of Dawn's interview) and also what supportive and encouraging groups they found themselves in. It would appear that a TLC is more effective when the teachers have volunteered to be involved as this brings increased motivation and commitment to the experimentation, reflection and observation phases in particular. The group is more effective when teachers feel emotionally safe, are willing to join in, share ideas and learn from each other. Perhaps involvement in a TLC is also attractive to teachers because there is an element of risk-taking and peer support and to a certain extent unexpected and unplanned outcomes.. However, both Timperely (2006) and Cordingley (2004) suggest that learning in a community can be equally as effective for volunteer teachers as for ones who are required to participate because the key condition is whether the teacher engages or not: 'A commitment to engage did not need to be a prior

condition; what was more important was that teachers engaged with the learning process at some stage' (Timperley, 2006, p.72). Conversely, teachers could volunteer to join a TLC but not engage and therefore the willingness to participate is the key factor and not the fact that teachers either volunteered or not.

Another aspect of TLCs that is worth considering is group size, as clearly the larger the group size the longer the feedback section at each meeting would take. Leahy and Wiliam (2007) suggest that a group of eight to 12 teachers is ideal and there were 12 members of this case study at the outset. Further to this another essential aspect is the structure of the meetings which means that everyone has to feedback what they have tried and everyone has the same amount of time allocated to do this. A number of teachers commented about how they found this refreshing as teachers could neither dominate nor coast through. Lave and Wenger (1991) talk about the 'division of labour' in communities of practice, with unequal division occurring when participants have different levels of power or perceived power, but in the TLC the structure does not allow for teachers to dominate. Whilst there might be varying degrees of experience and expertise within the TLC all teachers have volunteered themselves to learn about AfL. Not that they would be complete novices but there is a shared acceptance that they are all there to learn. Thus the structure does not support the 'master/novice' concept with clear distinctions but, the TLC structure is one where all the teachers can and do take it in turns to play different roles. An additional essential aspect of the TLC is that the meetings are timetabled for the whole year in advance and not changed or moved unless completely necessary. Having the resources presented in a folder and the provision of refreshments are added bonuses but these would be considered desirable rather than essential. A final point is that the TLC needs to have administrative support; not just for the reproduction of resources and meeting reminders for example but also support to facilitate observations. Teachers were very clear in describing the barriers to observing each other as discussed in Chapter 4, therefore perhaps removing these barriers is an area for development, enabling TLCs to be even more effective in supporting teacher learning.

Moving on from structural and administrative aspects the TLC functions as a community of practice using the definition presented by Lave and Wenger:

A community of practice is a set of relations among persons, activity, and the world, over time and in relation with other tangential and overlapping communities of practice (Lave and Wenger, 1991a, p.98).

This quote aids clarity of what a community of practice is and how TLCs fit in with their model as the teachers come together and form positive relationships with each other, they interact with teaching materials and use each other's experiences. Perhaps the most significant reason is because the TLC supports teachers to make sense of what they are learning in relation to each other, the students and subject areas they teach. Teachers in the TLC are constantly making sense of other experiences outside the TLC, for example colleagues in their departments, information about other schools and electronic media.

In addition for the TLC to work well the teachers need to attend all or nearly all of the meetings and this is challenging in a large, busy school especially with the after-school commitments of timetabled twilight lessons, revision and catch-up sessions and the 'extended schools programme', all of which might take teachers away from the allocated slot. Furthermore, unpredicted events such as illness and even heavy snow fall meant that meetings had to be rearranged, but part of the success of a TLC is the momentum of having monthly meetings and it is important to keep that momentum going as this keeps interest and commitment levels high.

5.4 My Model of a TLC

In order to further understand the essential elements of a TLC the model of a TLC was re-worked to reflect the findings. To illustrate the further development of the model the second version is included here for comparison:

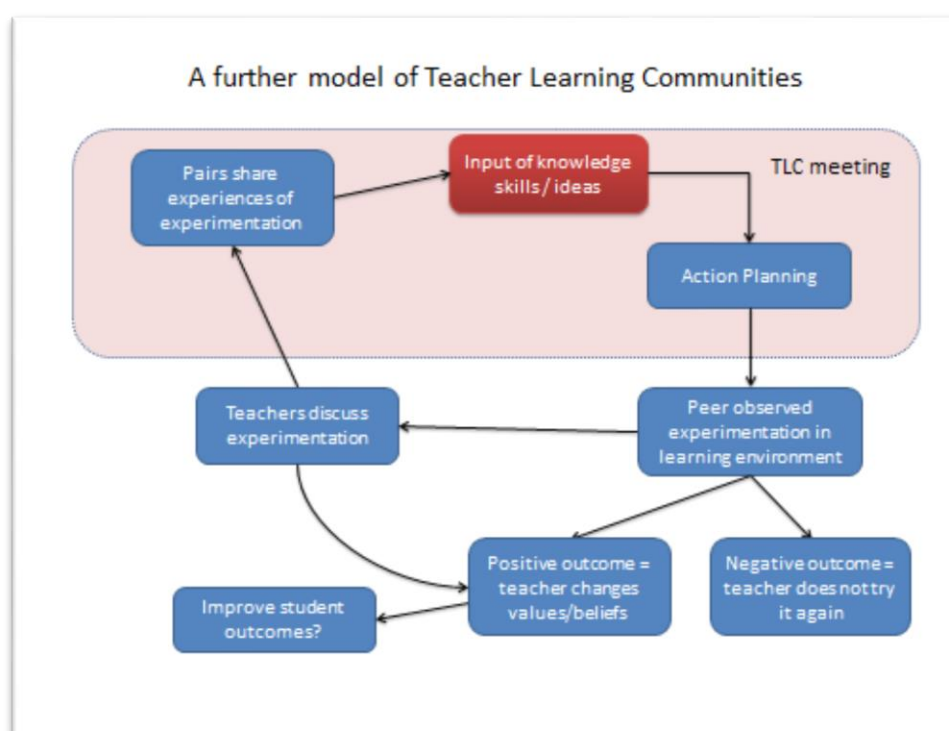


Figure 12: A model of Teacher Learning Communities – version 2

This second model, shown above, was compared with the initial model which was presented in Chapter 3 (Methodology and Methods section), with this final model being created towards the end of the research process to reflect the knowledge gained from reflecting on it and being engaged with it.

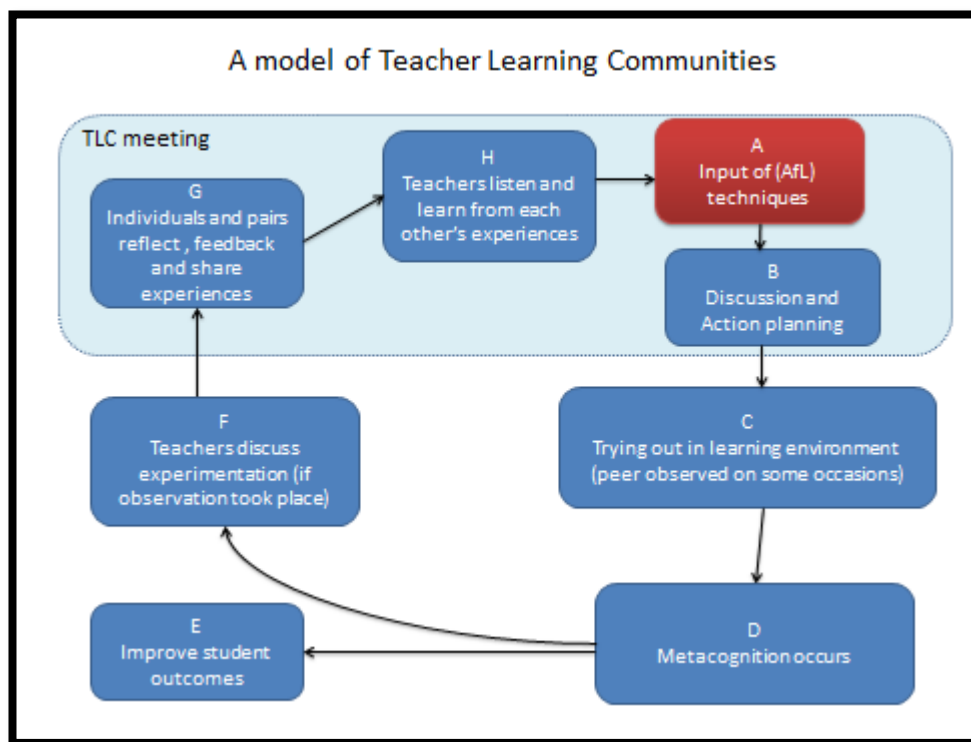


Figure 13: A model of Teacher Learning within a Teacher Learning Community.

My third original contribution to knowledge is the model above. It could be used by other people in schools who wish to set up and run TLCs or other similar types of CPD, especially if they have an understanding of the key component parts, explained here. Box A represents the input of techniques which could be AfL or perhaps could be related to another aspect of teaching. I argue that this replaces the 'expert' where this exists in some models of CPD for example TDA (2008), in addition it depicts the 'Content Focus' as suggested by Desimone (2009). Discussion and planning in Box B refer to the discussion within the TLC meeting where the ideas that have been suggested are discussed and teachers share prior experiences and tacit knowledge (Eraut, 2008) or situated understanding (Winch *et al.*, 2013). The action planning aspect of this box forms part of the reification process by transferring the discussion onto a concrete artefact which increases the responsibility to each other. Box C depicts the part of the cycle where teachers try out the ideas in the classroom or 'experiment' as Wiliam (2009) refers to it. Throughout the writing phase of this research the word 'experiment' has

been avoided in order not to cause confusion with a positivist or scientific approach to research but throughout the TLC the term was used by the teachers as that is what it is referred to in the pack. Nonetheless this trying out of ideas, hopefully with a colleague present, is part of the important reciprocal risk-taking that teachers participate in during the TLC cycle and an aspect highlighted as a key aspect of why they learnt. This phase is also referred to as 'active learning' (Desimone, 2009) and 'situated learning' (Lave and Wenger, 1991a). Metacognition occurs in a number of places throughout this process but after trying out is an important point, this concurs with Eraut's (2008) right-hand column bottom row in Table 3 on page 29 where there is 'conscious monitoring of thought and activity'. Teachers discussing the observed activity encourages reflection and metacognition and increases 'coherence' (Desimone, 2009), supporting a change in 'technical knowledge' (Winch *et al.*, 2013) which is also part of the generation of social knowledge (Eraut, 2008). These processes are continued and strengthened during Boxes G and F, creating opportunities for more 'prolonged diagnosis' and 'reflective learning' (Eraut, 2008).

5.5 Emotional dimension of a TLC

The outcomes for teachers have been well-documented thus far in this report, but it is worth focussing separately on the aspect of emotion. Teachers gain a range of learning experiences that improves their pedagogy and practice and previously I noted that teachers build a community where they support each other with the result that teachers form new professional relationships and the ramifications of this are potentially huge. If teachers are happier in their work they are more likely to be providing better learning opportunities for students. Teachers are more likely to enjoy their job and when the life of a teacher becomes tough as it invariably does, they have a network of people who can support them that they might not otherwise have had. This support reduces teacher isolation (William, 2008) which in turn can reduce the potential of long-term sick leave. In addition, having a network of support and feeling happy being a teacher means more teachers will stay in the profession. This is an important point given that recent newspaper reports suggest that 50% of teachers leave the profession within five years of training (Ofsted, 2010), although whilst our school does not have a particular problem with retention many schools across the country do.

Some of the theories presented in the review of literature brought in an added dimension to learning, that of emotion. Illeris (1980) labels three points of his diagram 'cognition', 'emotion' and 'environment' and that all three have to be present for learning to occur, but these may be in different quantities. The dimension of emotion does not feature in many of the models of

CPD or learning and yet for the teachers in this study it was a significant factor as teachers were forced to think about their practice in an emotionally safe, hierarchy-free environment, thus all three of Illeris' points play an important role. As previously mentioned participating in a TLC can reduce teacher isolation and increase the sense of belonging within the professional learning community of the school, clearly these benefits can be difficult to evaluate and were difficult for the teachers to articulate, but this dimension of emotional support might become increasingly important within the national and global picture of pressure and stress placed on teachers. TLCs could perhaps provide the on-going emotional support that teachers need, given the demands and status of the profession. Bonds and friendships are created and cemented as a result of TLCs and it means that teachers have the opportunity to meet and get to know other teachers with whom they do not necessarily see or collaborate. This aspect is emphasised by the nature of the TLC where sharing successes, failures and supporting each other enables teachers to form tighter bonds than simply discussing teaching practice and much tighter than merely working in the same institution. In answer to a question about how teacher education best supports effective pedagogy, Westbrook et al. (2013) concluded that a key point was that the CPD should align with the teacher needs, which leads to the question whether the CPD should align with the emotional needs of the teacher and not just the pedagogical ones? It would seem unlikely that teachers would consciously select a model of CPD that met their emotional needs, but it could be worth considering if part of the promotion of TLCs should focus on the emotional benefits of feeling supported, feeling confident enough to try out new ideas, forming a range of positive relationships and so on. This aspect has really made me think about the range of CPD pathways that we offer and if there is a correlation between the type of CPD that people select and their emotional needs, consequently should there be more explicit focus on the emotional gains of each enabling a more conscious selection process for teachers.

Returning to the point made in Chapter 1 regarding the climate and ethos in the school and how that is conducive for teacher learning and collaboration, the TLCs can thrive in that type of culture and also contribute to it; they form a symbiotic relationship, needing each other for them both to not just be maintained but to thrive. TLCs may not be as successful if they were in a school where there was a competitive culture based on performance-related pay, perhaps in a school that was so-called 'under-performing' and consequently under the threat of closure or being forced to become an academy. Likewise a school's culture of collaboration and supporting its staff might not survive if there were no tangible examples of how this was manifested. As suggested in the opening chapter, that culture of support and collaboration

and also a healthy interest in CPD has taken many years to develop and through the running of TLCs and other similar CPD pathways the hope is that this would be maintained, almost in spite of the national and international picture. My fourth original contribution to knowledge is therefore that TLCs provide emotional support to teachers, which although difficult to articulate or measure, plays a vital part in supporting teachers in the profession. The point made previously regarding power and the effects of the involvement of a senior leader in the TLC, can be extended to include the emotional dimension too. In promoting the benefits of joining a TLC at whole-staff meetings, I have been overt in saying that joining means people feel supported, as previous participants have reported this and become advocates themselves. This also becomes to a certain extent, a virtuous cycle where teachers benefit, report their positive experiences to others and this creates further supportive TLCs. There are two points to be extrapolated from this; firstly that the power present in the very first TLC, which was run by myself, in creating a harmonious group and some might say, dictating the 'feel' of the group, might still be evident in the more recent TLCs. In some cases the current group leaders might have been in a group that I previously ran and therefore behaviours might be replicated as the current group leaders feel that there is a certain way to run the group. Secondly, participants in the TLC have heard accounts from myself or others and so have expectations that the group will be supportive and encouraging, resulting in further replication of behaviours and expectations. Furthermore, my presence in the AfL TLC meetings undoubtedly had an effect on the group in a variety of ways. One example comes from a TLC in the school which is not part of this research in which a teacher participant stood up half way through a meeting and declared that it was a waste of their time and promptly left. The teacher who left the room was far more experienced than the group leader and may have thus felt superior, resulting in her taking that action. It is hard to envisage teachers behaving like that with a member of the senior leadership team present. The power and authority flowing from the leader, in this case myself, will affect the behaviour of the participants. In addition, I play a role in the school which is very much about support, inspiring people and being positive, whilst the direct influence of these factors on the TLC are difficult to gauge, they must nonetheless influence the feel of the group and the benefits derived from it. To conclude, it was impossible to remove the power-dynamic from the research and therefore it must be recognised and accepted as a part of it. This might help other schools looking to set up and run TLCs to think carefully about who introduces them, who leads them and who promotes them as these dimensions may play a key part in their on-going success, which also links back to Robinson (2009) and the role of school leaders in promoting CPD.

5.6 Limitations of a TLC

The strengths of the TLC have been discussed previously and in detail; in summary the opportunity to learn with others and the development of skills for the classroom and metacognitive skills. The main limitation found was the lack of availability of time. Considering that Eraut's model (2009) is dependent on teachers spending time to develop analytical skills, time acts as a barrier for those in the TLC and on their desire for it to be successful and also for those wanting to join the TLC. Considering that teachers are already very busy I often hear 'how am I going to fit that in'. Of course joining the TLC does not mean that any other time-consuming tasks are removed from the teachers' workload and so it is undertaken in addition to their current workload. For some teachers who feel that they are working at capacity already joining the TLC then becomes prohibitive. However, an alternative perspective is that teachers always say they have not got enough time and really it is a case of priorities because the data suggests that the TLC functions well in overcoming these barriers. Teachers and also perhaps structures in schools should support CPD opportunities so that they are a priority and not just something that teachers will fit in if they can 'find the time'. This may be partly related to time-management skills and for some teachers that is an issue. But more helpful for teachers would be having some tasks streamlined or even removed in order to create the time for meaningful CPD such as TLCs. To further expand this point whilst I accept that time is such a key factor it also relates to 'head space' and creating sections of time for teachers will only be helpful if it is in the right place. For example some teachers do not like CPD at the end of the school day when they are tired and many do not want to use their 'own time' such as weekends. I am interested in finding out about TLCs running during the school day to see if teachers prefer to learn at that time although this might lead to a problem if teachers are forced to take part and it is not an option for them. Furthermore, time is institutionally constructed and bound up with the bell, timetable and a factory-schooling model. If the school day finishes at 3pm, perhaps teachers feel as though CPD that they do after lessons is 'extra' and on top of what is expected of them, rather than just incorporated into what they do.

Whilst all of the teachers answered this question by saying that the model can easily be transported to other schools it may not be as easy as they think. Whilst other schools could do exactly as we have and implement TLCs, from my experience of presenting this work at conferences and CPD training sessions, schools vary considerably. What works in one institution will not necessarily work in the same way in another institution. We adapted and changed the model and written pack by Leahy and Wiliam (2007) to make it work and 'fit' in

our school and other schools would need to do the same if TLCs were to succeed, because schools are not just institutions but a community with a unique culture and ethos.

TLCs offer a cost-effective way forward that can involve large numbers of teachers meaning that over a relatively short period of time wide-scale improvements across a school could be obtained. In order to ensure that learning takes place key elements would need to remain in place, many of these key elements have been discussed above, for example a school could change certain aspects such as the time of day when the TLC occurs. Wiliam and Leahy (2007) suggest that TLCs could be department-based so that all the teachers in the TLC taught the same subject. There could be advantages in that the whole department can work on certain aspects of teaching together and would have more opportunities to collaborate as they work in closer proximity but there are potential disadvantages too as a department has a hierarchical structure and that could prove counter-productive. We have attempted to get departmental TLCs running at school but as yet these have been unsuccessful. Perhaps this has been a lack of enthusiasm or perhaps it is due to a lack of communal time. Another possible change to the TLC structure is whether teachers could work in the same pairs for the whole year or whether, like the model we use, the pairs change every meeting. Being in the same pairs has the advantage of teachers really getting to know each other and so can plot progress over time but what if you don't get on very well with the teacher you are paired with for a whole year, or what if you work for six months of a year with one person and they go on long-term sick leave? All of these possible adaptations to the TLC model are opportunities for further research.

5.6.2 Schools as institutions that constrain learning within TLCs

Our education system is based on an old-fashioned factory model and is in need of modernisation as espoused by Sir Ken Robinson:

We have to go from what is essentially an industrial model of education, a manufacturing model, which is based on linearity and conformity and batching people. We have to move to a model that is based more on principles of agriculture. We have to recognize that human flourishing is not a mechanical process; it's an organic process. And you cannot predict the outcome of human development. All you can do, like a farmer, is create the conditions under which they will begin to flourish (Robinson, 2010)

The old system is reflected by corridors, a bell to signify lesson change over, structures such as groupings based on age and not ability or level, it is not a surprise therefore to consider that a

culture of long-term effective CPD might take a while to take hold. Further to these restrictive systems, teachers in the UK are allocated five INSET days per year which as discussed in Chapter 2 are used in a variety of ways. By contrast teachers in Shanghai, China are required to undertake 240 hours of CPD over five years, teachers in Singapore carry out 100 hours per year (UNESCO, 2014) and Sweden appears to have the highest amount with 104 hours or 15 working days per year (Darling-Hammond *et al.*, 2010), which equates to over three times the amount of UK teachers. Therefore the opportunities, time and culture around engaging in CPD are entirely different to the UK where participation in the TLC was seen as in addition to an already heavy work-load. Similarly in Japan where in certain districts lesson study is an embedded form of collaborative on-going CPD, teachers lesson commitment may be half of that of a UK teacher and in some countries (such as South Korea and Singapore) teaching makes up just 35% of a teacher's weekly workload (Darling-Hammond *et al.*, 2010).

5.7 Policy implications

If Headteachers and CPD leaders are looking for a low-cost and yet potentially transformative model of CPD then they might look to TLCs. A TLC is relatively cheap to run yet has the potential to support teacher learning and development. I would argue that if Headteachers were aware of the potential impact of teachers being involved in a TLC they would provide time and funding to facilitate wide-spread participation. For example if all 121 teachers in our school were given one extra non-contact lesson per fortnight this would cost in the region of £75,000 per annum for the equivalent of the three teachers extra required. This does seem like a large sum of money and is indeed three times the current budget allocation for CPD but the potential gains are huge. That said, providing the time for teachers to be involved in TLCs does not necessarily mean that the teachers will be willing and motivated to gain from it. Careful planning would be required with regard to the mix of teachers in each group. One suggested way would be to place together all the teachers at the same career stage. This has the advantage in that they are at approximately similar stages of development in terms of experience and practice but might be disadvantageous as there would not be the possibility of less experienced teachers working with, and learning from, more experienced ones. All teachers being involved in a TLC would mean that there would be in the region of 10 running concurrently, with the need for 10 leaders and correspondingly numerous copies of resources, none of these barriers are insurmountable. Taking this one stage further the school could create times during the school day when certain groups of teachers could meet so that the meetings are not always at the end of the day when teachers might be tired or have other commitments.

As discussed previously some policy decisions in our school have already been made in terms of the type of CPD that teachers will engage in over the coming years. I think that these are positive steps forward especially in being able to provide good quality CPD in school so that teachers do not have to travel too far for it. As discussed in Chapter 1, this is in spite of the contradictions of performance related pay and the new appraisal system. Whilst the school used for this case-study has attempted to minimise in-school competition by adopting policies and procedures that support collaboration and sharing, it cannot remove them completely as they are part of a national agenda, or indeed an international agenda of attempting to improve the workforce through scrutiny, pressure and cross-border comparisons.

5.8 Limitations of the study and recommendations for future research

This research was limited to just one school and TLCs that have run for 4 years but predominantly focussed on an AfL specific TLC involving 12 teachers. With just 12 teachers from a teaching staff of 121 teachers it is not possible to know how all of these teachers would prefer to learn or how they would experience a TLC and how a TLC might compare to other forms of CPD for them. As participation is entirely voluntary this research cannot account for those teachers who are reluctant to engage in their own learning and they provide an on-going challenge for me and the school as a whole, equally, being voluntary does not mean that only the teachers who do attend are the ones who wish to as I have had many conversations with colleagues about how they wish they could attend but are unable to due to a myriad of reasons.

In taking this research further it would be useful to track teachers and classes over longer periods of time such as five years to see the longer-term impact of participation in the TLC and longer term involvement in on-going CPD. This could really add some weight to the argument and potentially produce findings that Headteachers could not ignore. Experimentation with the systems and structures of a TLC would be useful. I am especially interested to know if a TLC would be as effective if it took place during the school day. If as a school we were willing to invest in teachers sufficiently to enable a group of teachers to be off timetable for a period of time for the meetings and the lesson observations then this would potentially increase the effectiveness. However there is the potential that if teachers have been told that they have to participate at that time then they might not participate as willingly and as enthusiastically. Perhaps we would need to share ideas with other schools in order to keep moving forwards and not get stale. One teacher had an interesting idea of videoing lessons so that they could be watched back by the pair and discussed, with watching and discussions then being done by the

whole group. In addition it could help build a really useful bank of resources for all teachers in the school.

5.9 My personal development

Carrying out this research has been thoroughly enjoyable and it has been an amazing personal journey. I feel immensely grateful to have had the opportunity to research an area that is close to my professional life and benefits myself and the teachers at the school. It has been fascinating to relate the findings and the readings to myself as a learner, as a researcher, in my role as deputy head teacher, a classroom teacher and to my involvement in various TLCs. For example I would be reading about Eraut's typology of learning trajectory and notice how even as one person I can be in totally different places for different aspects of my learning. Relating that to the theoretical perspective that I took, although I feel very much a novice in terms of academic knowledge and skills when I am attending the University weekends as part of this course and yet in school other people think I am an expert. When I wrote the creative writing piece 'my experience of a TLC' which can be seen in Appendix 2, I did not know if anyone else felt like I did. Participating in the TLC really had been transformational for me and was exactly what I needed as a practitioner at that stage in my career. I ensured that I had written that before I collected data because I wanted it to be my personal account and not influenced by other people's thoughts and opinions which I knew would be in my head after interviewing. Whilst I am sure I can sound quite evangelical about TLCs and the potential for them to be transformative for other people I can also see how people external to this process might think that I have come to this research with a very biased perspective. However the findings of the research really were very surprising. I still have my personal journey but added to that I now have two very important insights: CPD needs to provide opportunities for teachers to develop their metacognitive skills and also that the whole process of developing those metacognitive skills and using them routinely takes a time. I had no idea that I would be taking away those things with me.

In a similar way I felt as though I was a member of multiple communities of practice, with fellow students at the University, teachers at school (with whom I was interviewing and collaborating for the research) and also the TLC itself. It was as if I was the embodiment of a 'theory into practice' model. Previous to this research I viewed academic knowledge as some distance away and that it was someone else's job to translate research for teachers to understand. Now I feel very differently and am pleased that I have brought the two worlds

closer together not just for me personally but also for many of my colleagues who have received excerpts from journals either orally or photocopied.

I feel in a very privileged position as I am able to influence the CPD of a large number of people and I take that responsibility very seriously. The years over which this research has been conducted has seen dramatic positive change for the teachers and support staff in our school. CPD forms a large part of our new school improvement plan that will take us through to the summer of 2016 so there are years to come of positive long-lasting influence of this work. For some time I have presented at conferences and I will continue to do so and if senior leaders and other CPD co-ordinators can take some of the messages away from this research then the benefits will be way beyond my school.

This research has influenced me on many levels as it has some of my colleagues who tell me that they have been inspired to undertake further academic courses. Of course undertaking this research has served as a role-modelling exercise of collaborative CPD that lasts for a period of time. It would be beneficial for teachers and leaders to consider the role of CPD that is meaningful and continues over many years as essential for teacher development so that they have the opportunity and the skills to engage in metacognitive thinking.

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Appendix 1 – My personal action plan

My personal action plan

Name		Date	
Preparation for feedback to the workshop group			
What I have tried out since the last workshop			
What my partner fed back / asked that was helpful			
WWW (what went well)			
Even better if I...			

Planning for the next workshop
The technique I am going to try
How will I use the technique?
Group(s) I am going to use the technique with
Problems I may have and how I plan to resolve them
Who can support me and how?
I am going to do less of
Notes

Appendix 2 - My experience of a TLC

Having shared the aims at a whole staff meeting, there are 11 other volunteers (I consider myself one!) for the inaugural teacher learning community (TLC), focussing on Assessment for Learning (AfL). We kick off meeting one, with a sense of anticipation and excitement. I wonder if that will prevail on the coming colder, darker evenings when teachers start to get tired and once the full swing of term is underway.

The first session begins with us sharing the aims. These are expressed in WALT terms, which stands for 'we are learning to'. I have had a sneaky look through the agenda for every session and noted that there are two learning intentions for every meeting; the first one is the same each time.

We are learning to:

- Share successes and failures, and support each other

And the second one varies based on the session focus:

- Establish effective ways of working collaboratively

That is a nice aim – to make it clear that there will be moments of success and also failure and yet we will be supportive through that process. I can't recall ever being in a CPD situation where it is ok to share failures and I am now wondering, even panicking if I can really share my failures. I am an assistant head, am I ALLOWED to have failures? What if people think I am useless?

Next comes the 'starter' activity, which again will feature every session. I wonder if the teachers will find this a bit trite, but we give it a go. "Think of something that you are looking forward to this school year. You have a maximum of 30 seconds to tell the group what it is. No one can 'pass'. When it is not your turn you should be actively listening". Wow, they are clear instructions! I am now wondering if this pack that we bought is a bit formulaic. It turns out to be a nice idea, people are looking forward to all sorts of things and immediately there is a fresh buzz in the room. From this we go straight into 'What is AfL all about'. We are told that we are going to look at 5 key strategies of AfL:

- 1) Clarifying and sharing learning intentions and criteria for success (sharing learning intentions)

- 2) Engineering effective classroom discussion, questions and learning tasks that elicit evidence of learning (Questioning)
- 3) Providing feedback that moves learners forward (Feedback)
- 4) Activating students as owners of their own learning (Self-assessment)
- 5) Activating students as instructional resources for one another (Peer-assessment)

And these 5 all lead to one big idea:

Using evidence of learning to adapt lessons in real time to meet students' learning needs.

I feel more reassured that AfL isn't some untouchable enigma and to reinforce that, we all share some AfL techniques that we already use. Great, this is more like it. Stuff we can actually relate to, stuff we can get on and do.

Next we are prompted to reflect on how we behave in meetings. Well that's how I have interpreted it anyway. I am quite good at looking around the room and thinking 'she could do with talking a bit less', 'he could try and look interested' and similar, but the sheet asks me to reflect on myself and not fill it in for other people. I make a mental note to use this in other meetings and for other forums. We are being asked to focus only on learning outcomes and teaching techniques and so wandering off topic onto other aspects of school or other life is banned. How will we actually manage this? I ponder as others fill in their sheets. We watch a short section of film entitled 'lessons from geese', what a fantastic clip. We are encouraged to work like the geese, encourage and support each other and when one gets tired from leading, another fresher goose can take over. There are a few old and burnt-out members of staff who could learn from this – my mind wanders off again.

Finally, we fill in our action plans for the coming month. We have to select one thing we are going to try and one thing we are going to try less of. I decide I am going to try 'no hands up' questioning and do less of talking – now there's a challenge! A few people share what they have planned and we finish up with everyone sharing one thing they have learnt from the session. Amazing how we all are taking away things that are so different to each other, yet we have been in the same meeting. I have gone from feeling excited, to full of fear yet buzzing with ideas all in the first meeting.

Meeting two is probably my favourite one of all. We are learning to share successes and failures and support each other (of course) and also we are learning to understand how to incorporate learning intentions into lessons and why this is important. After reflecting and sharing from session one, this one hits us with a boom. We are asked to focus on ways in

which we can find out what students have learnt and are given loads of great examples: exit ticket, class basketball, triangle of learning, reflective learners. There are 15 examples in all to choose from. Next, we have to discuss and complete an exercise about learning intentions. What makes a good learning intention and what might success criteria look like. This is fascinating, some people haven't heard of success criteria. Really? Where have they been? Of course this conversation goes on in my head as we are all being overly supportive of each other. Creaks, gaps and fissures in our knowledge begins to show. Learning intentions, hurrah, I am pleased – I have been trying hard to get colleagues to move away from 'lesson objectives' as a term and all manner of variations, learning intentions is the clearest phrase. Dylan (William- who wrote the materials) is fast becoming my hero. The success of meeting two is that we have all got heads awash with ideas. We pair up for the observations – just informally getting into pairs – and commit to trying something with a class that our partner will come and see. I select the 'triangle of learning' to try with a Year 8 geography class.

Seven school days later and my partner is coming to watch. I am mildly grateful that I chose a sheet to give the students. This means I don't have to actually 'do' anything myself, even so, I am still feeling a little nervous. The students complete the sections: the triangle is split with three sections along the bottom, where they have to fill in 'three things I have learned in this lesson' followed by 'two questions I would still like answered' above, and finally, 'one thing I already knew' at the top. It is making them think hard, making them think about their learning. Some of them don't like it, they are finding it hard. They are asking questions. Have I left enough time for them to fill it in? The class leave and my partner and I read through the responses. Wow, these are really interesting, they are thought provoking. We discuss how I can do things differently next lesson based on what we are reading. Suddenly we are planning a scheme of work! Two days later and I go to see her. She has opted for the A4 sheet entitled 'my reflections' where the students are required to reflect on their learning over a series of lessons. Her art class are filling them in eagerly, can they discuss it? Miss says not – she wants their own views, but this has got her thinking. When they finish, they can then take their sheet to other people and swap and share reflections. There are some amazing conversations going on here, these year 7s are sounding like people double their age. 'Miss can we now add more?' 'how about we do that in another colour' oh great, Miss is really running with this. The students are also coming to us to share what they have written and we listen intently to their accounts. Miss comes away with so many ideas of how to improve the lesson planning for future and also where to go next with this lot. I like this technique so much, I give it a go the next day.

Meeting three starts and we all want to speak; we all want to share what we did, what we tried, what worked. It is hard to stick to the three minute allocation, but the time keeper does a good job. I am frantically making notes of other people's ideas. I like the sound of so many of these ideas. Some people ask for ideas to be expanded, how exactly did you make it work? There is an overwhelming sense of success and achievement in the room. We feel better informed about knowing what the students think about their learning, knowing what they have learnt and misconceptions they still have. There is a change to the focus this time; we are now looking at techniques to find out what the students are learning *during* the lesson. We go through the nine ideas presented from the pack and people talk about what that might look like and how we might incorporate that into our different subject areas. We pair up, fill out our action plans and off we go. I feel like I am getting the hang of this.

It is the fourth meeting already and momentum is really starting to build. Everyone is making an effort to attend the meetings and people are enjoying trying new things, even if they don't work! We feedback on how we got on since the last meeting and most people have been observed and/or have observed someone else. I like the fact that we pair up with a different person each time as the special needs lesson that I saw last week was fascinating, there were only six students in the room – seemed easy to start with, but goodness me, that area requires some specialist skills. The focus of this session is marking less. Well that's all I heard. They are like dream words to hear as a teacher. I look back at the sheet, and the focus is actually to mark less whilst giving students more responsibility. This is a good idea. There are nine 'feedback techniques that make students think' and quite a discussion ensues as some people have tried some before. We write our action plans and as always they are photocopied at the end (just in case we lose them, there are no excuses allowed in this group!) and off we go again.

I am enjoying the discipline of being made to do less of something. I keep writing 'talking' on the sheet and even though I am getting better, or should I say quieter, I still have a long way to go. I wonder if I am a product of an era of teachers where the focus was on us as performers and having to 'entertain the children'. I like talking, in fact I love the sound of my own voice, I like telling stories and engaging the students in debate and challenging discussions. I do recognise that this might be enjoyable for me, but it is not always the best way for them to learn. I am much more thoughtful about how and when I choose to tell the story, or lead from the front. I have also surprised myself, it is really interesting giving the students more control and watching them interact and engage, and at times with me watching from different places in the room.

Meeting five is about peer support. This time there are 10 prompts or ideas and we once again have a great discussion about how we can incorporate these into our lessons. Lots of people have tried 'two stars and a wish' and this almost seems a bit old fashioned. But there are lots of other ideas, like, 'best composite answer' where the students work in groups to come up with the complete answer. Another example is the 'pre-flight check list' where students check each other's work against a checklist devised by the teacher, the students or both together. One teacher says she is going to use this for homework – she is going to get the students to check each other's work before they hand it in for marking, so that she only marks completed work. This became a roaring success, because she told the students in advance that she was going to do this and miraculously the quality of the homework improved and the number that 'forgot' dramatically reduced.

I am amazed at how in a relatively short space of time I have become so much more conscious of everything I am doing in the classroom. I am constantly reflecting and changing what I do and how I do it. This TLC has raised a level of consciousness I have not experienced since I was training to become a teacher. I have got into too many bad habits and this has made me recognise them and want to do something about it.

Meeting six has become infamous. 'Hinge questions' are the marmite of the AfL TLC; some people love them and some people hate them. They do seem to work better in some subjects more than others, but it seems just a personal thing. Most people have not come across hinge questions before and so there is a different approach to this session. There are materials explaining what hinge questions are and then there are some hinge question examples where we work in small groups to decide if the examples given are good hinge questions or not and why. The discussion of this activity clarifies in people's mind what they are and how to create them. The idea being that the second half of the lesson hinges on the classes response to one or more hinge questions that check understanding. The teacher plans for a variety of outcomes: if they all get it right, move on to more challenging work, if they all get it wrong, go back and explain again, or more tricky – if some get it right and some get it wrong, the lesson might go in a number of different directions. Some students could help the ones who don't get it, some could have more challenging work, some could get in-class support from another adult in the room etc. the possibilities seem endless. This is the first time I feel cerebrally challenged and I am enjoying it. Sure enough I go away and plan and try some hinge questions. I learn that my students are often ready to move on much sooner than I had previously thought. Why have I been holding them back all these years?

Meeting seven is a lull, attendance is down – teachers are busy, stressed and ill as the exam season looms. Feedback from the last session is varied. Some people are frustrated that hinge questions just didn't work or seem to work, or they couldn't get it to work. A drama teacher puts a good case: explaining that hinge questions are good for checking understanding of knowledge, a concept or even a skill, but in drama where she wants them to work on their skills of performance, observation or feedback it is a bit harder. Whilst it seems possible to me, I can see her point. People are very supportive of others' and their supposed failings. We move on to the focus for this session which is how to use summative tests in a formative way. I am now getting a strong sense that every teacher in this school needs to participate in this TLC. We are collectively wasting so many potential learning opportunities just by doing the things we have always done, in the ways we have always done them. This process has completely transformed me and we still have more sessions to come.

I cannot believe that we are at meeting eight and the penultimate meeting already. I don't want it to be over, I haven't learnt enough yet. This session is about 'activating students as owners of their own learning'. I constantly hear the complaint that we spoon-feed students too much and they should be more independent. Students could write their own exam questions and set them for each other, they could take it in turns to lead the lesson summary, they could be the ones who go around and see who understands and who doesn't and then pair people up for peer teaching, as always there are too many good ideas here to try them all before next time. We only have to try one, but there is always more than one that appeals. I decide I need to repeat this again next year, there is still too much to learn. Even though students are having to think in my lessons, 'No hands up' to answer questions means they all know that they might have to answer and so have to have one ready. In one lesson some of the class groaned when I got the lolly sticks out to randomly select their names. I enquired 'why the groans?' 'oww we don't like it because you make us think, and it hurts our heads. Can't we just let Dan answer all the questions like he does in every other class?' YES! I punch the air, like I have just scored the winning goal, what a result! They are bemused by my reaction. Similarly, tests are now administered before the end of the unit so we have time to for them to find out what they got wrong and put it right. They don't like it and they find it hard, because they have to work hard and think more, whereas before they didn't have to.

The final meeting is centred around us reflecting on what we have learnt, what we do less of, and what is now embedded in our learning. We look back at all of our action planning sheets and there in front of me are documents that plot my progress and my increasing confidence levels. I have many techniques now completely embedded in my teaching. I now talk loads

less; being more selective in what I say and when and how I say it. Students in my classes are more independent, more clued up about where they are at and how to get better. This has been a roaring success and clearly not just for me. Individuals in the group share their successes; these are met with woops and cheers from the rest. I reflect on these individuals, some of them I hardly knew before, but they have been part of the journey, part of my amazing journey to becoming a different more effective teacher and I hope I have done the same for them. I am surprised by how much we have bonded and got to know each other. There appears to be a mutual feeling that we have all been part of something really special.

Appendix 3 – Copy of the Survey

Survey for Teachers who have participated in an AfL TLC

As most of you probably know, I am trying to contribute to the knowledge of TLCs by undertaking some research; specifically focussing on the AfL TLC. Please could you answer the following questions:

There are no right or wrong answers, I would like your opinions and reflections on being involved in the TLC.

1. How would you define a TLC?
2. What do you think are the essential elements of a TLC?
3. And what do you think is required for a TLC to work well?
4. Do you feel that you learnt as a result of being involved in the TLC? (Yes/no)

If yes, how did you learn?

If not, was there anything that prevented you from learning?

5. What would you say is the contribution of TLCs to your overall professional learning?
6. What would you identify as the strengths of a TLC?
7. What would you identify as the limitations of a TLC?
8. What elements of TLC might be transferable to other schools?

Thank you very much for completing this,

Claire

Appendix 4 – An Interview

Interview with Dawn May 2013

CB: I'm just going to start with your reflections. So you've done the AfL TLC. Do you feel like it was worthwhile?

DAWN: Yep, definitely. I liked the handouts of specifically having a list of suggestions. Often I'd refer back to them and afterwards if at the time I thought that won't work or because you have to choose something to focus on 'I'm going to focus on the first two' because you've seen 3, 4, 5 and 6 written down and you're aware of it and if someone else mentions it you think oh yeah actually I've heard of that, I could try that. I've realised that probably one of my best strengths as a teacher is using my initiative and trying things out as I go along in the classroom

CB: To incorporate some new ideas? Thinking on your feet?

DAWN: So being able to experiment with ideas in my head that I've heard of, as long as they don't require resources I can often just use them if they're appropriate. You know I've never actually planned to use 'heads down thumbs up', but I end up using it quite a lot because it just fits in, it just comes to me 'ooh that will be useful' it's never something that I've sat down at a TLC and agreed that I would try but had it not been highlighted to me then I perhaps wouldn't have been aware.

CB: Okay. So the confidence to just give it a go and perhaps quite a bit of having all those tools in your head ready to use if you need to so when the opportunity arises you then think ok?

DAWN: mm, yes, yes.

CB: Ok so actual TLC process itself, you said it has had an impact on you. So what is it? Why?

DAWN: Yeah. Well you're committed, so you have to go. It's planned out in advance so you know when it's coming up, you know when the next one is. Sometimes it is a bit of a hassle to go and observe someone and to have them observe you, because it's the thing which is the difference between a normal CPD session after school or something. I think it would only suit a certain type of person. You've got to be someone that really wants to get stuck into it.

CB: So who wouldn't it suit?

DAWN: Someone that is perhaps turning up to a CPD because they have to, you know to tick off a certain number per year. Somebody that is there physically but genuinely has no intention of

getting better, you've got to buy into the fact that you want to improve and you're willing to put in the time and the effort.

CB: So if you're a teacher who has an interest in improving your own CPD, do you think the TLC is useful?

DAWN: Yes

CB: Right so it's for people who are motivated?

DAWN: Yes

CB: Oh right I just wondered if you meant because of your learning style or...?

DAWN: No, it's to do with your motivation and your desire to improve. The sort of thing that should be possibly compulsory for NQT's because they've come straight from University they're reflective they're used to wanting to improve. It's the sort of thing that if it's started off with inexperienced teachers who are still wanting to try lots of techniques. If you start off like that, which is kind of how I feel I started off, and then once you're into that swing of things and you've seen the benefits then you don't really use that, possibly.

CB: mmm, that's a really good point.

DAWN: because I'm now a reflective practitioner, conscientious, wanting to improve and that doesn't all of a sudden stop. And because you're wanting to improve, I was saying to Jane yesterday, then if you feel that you haven't got the time or you take on extra responsibilities it can be frustrating because you're still wanting to improve but you feel like you don't have the time or the space or whatever, but that will never be knocked out of you I don't think.

CB: So you didn't do the TLC last year it was the year before wasn't it?

DAWN: It was the first year I did the AfL TLC, the first year it ran.....

CB: Oh was it?

DAWN: No it wasn't it was the second...

CB: it was the second, you were the second cohort...yeah.

DAWN: It was, it was the second year it ran and then I did the middle leader right after that.

CB: Ok and are there things that you do now in the classroom that you can attribute to that?
[the AfL TLC]

DAWN: Yeah....yeah loads. One thing I did find with the AfL TLC thinking back.... Is it was a bit of a confidence boost because actually a lot of the stuff you do anyway that you didn't realise that there was a name for it...you didn't realise that there was such a thing as 'don't put your hands up' you didn't realise that was a technique.

CB: Yeah, yeah. One of the things that kind of added bonus really that you build a relationship with people and you feel included in the school otherwise it can be quite an isolated event, erm profession, but it brings people together. What would you say are the best bits about the TLC? What are the real bonuses? If you were selling it to someone, 'you must do it for these reasons,' what would they be?

DAWN: Erm, it's the only CPD I've done that's had a long lasting positive effect on my practice, because you have to go back to it, you have to reflect, you have to have done what you have committed that you're going to do you know if someone comes to see you and that's lovely and the people that choose to sign up for it are the sort of people who are going to give you constructive criticism but help you evaluate it. You know the conversations I've had with Jean and Jane about teaching and learning are amazing. Because it's a really isolating job in some respects, you go in your classroom you shut the door, it doesn't matter too much what goes on inside the classroom, so to be able to share with other departments and things. Some CPD's I've done and whilst it's planted ideas in my head if it hasn't helped with how I can interpret that into my subject easily, if it requires a bit of effort often it won't get done, because you'll forget about it and go and do something else. For the simple fact that you commit to something, you organise something in your diary, someone's going to come along and help you evaluate it which means you have to do it which means that it's the only CPD that I can think of that I've done that's made a long lasting positive impact.

CB: ok, thank you. What would you say were the limitations? It's got lots of strengths, the whole process, where doesn't it work, where would you say to people you know this bit is the not good bit about it?

DAWN: It does take up time. You've got to be willing, you've got to be aware that it will take up a bit of time. You've got to be committed to that. It's not going to work if you're half there. You know, in and out of it. You can't really, you shouldn't really come along if you've just got a negative attitude if you're just going to sit and moan. And actually I don't really want you

there. I would like to be surrounded by like-minded individuals that are going to take it seriously

CB: Yeah. Were the group that you did it with, you felt that that was, you had that?

DAWN: Yeah. The people who showed up regularly. And the fact that you build relationships with other departments. It is really nice if you can do it with somebody in your department. We tried this year to have a much greater AfL focus in our teaching teams meetings. It hasn't been particularly successful. Probably down to the way that we've tried to do it.

CB: It's a different forum isn't it?

DAWN: Different forum, not everybody would choose to be part of the AfL TLC, so to take that into their teaching team meetings and give it to them rather than offer it to them, it's not always..... You need to buy into it, for it to be successful. There's no point forcing people to do it.

CB: So what would you advise for the future for the school, where do we go with it?

DAWN: I would say that even if there is a low, lowish uptake of numbers to plough on with it anyway. Having a small group of maybe four per year, if that's the people that are interested.

CB: We started with twelve this year and it's our fourth year so it will be interesting to see, to see what we get and we get new staff all the time. I'm confident that we'll get another say ten next year.

DAWN: Yeah as a school...keep running with it.

CB: Henry had a nice idea, actually I'm not sure if it was Henry, but someone had a nice idea. Because you're presented with the ideas on a sheet of paper, the people who have done it before can come back and say this is what it is and here it is in a book, some photos of what it looks like by the time we did it or whatever, so people have captured those moments when they're teaching it and brought it along so you know bringing it alive really. So people say yeah you're kind of reading it but some of them you just think I don't know what you're talking about. I quite like that idea and that could help then people who have done it before, to keep fresh and keep thinking.

DAWN: AbsolutelyAnd sharing the pressure. With the hinge question I tried it a few times, great, works well, but you have to plan and prepare for it, that one, it's not one you can just run off and just do it. I desperately wanted to put it into my SMT observed lesson, but I was

doing something that was quite, you've either got it or you haven't So I couldn't I was racking my brains but I couldn't get a nice meaty, answer where there are four possible answers but they had to have an explanation ...couldn't do it so I thought do you know what I'm going to try it with multiple choice, yes no, the answer is a,b,c,d. But there's going to be five of them and the hinge bit is they've got to get more than 3 out of 5.

CB: Right, ok, yeah.

DAWN: So it was using the inspiration from the help sheets and putting my own spin on it to see if it would work and it actually worked really well. So potentially using Henry's idea, some people might see the hinge question and think that wouldn't work for me.....maybe maths, you know it's very much right or wrong. So if someone could come along and say 'even the maths people out there could use the hinge questions, this is what I did'. Charlie happened to observe me that lesson and it worked really well, and genuinely it worked fantastically in that lesson. I had a really mixed ability class, really weak level 3 kids and I was convinced there is no way they were going to get this and they all got 5 out of 5 on the mini whiteboards and then afterwards I was like thank god I put that in because I know I'd have ploughed forward with it because I'd have assumed there's no way the weak kids would have got this. So it really worked.

CB: You've just summed up AfL in a nutshell haven't you really. It's that knowing where they're at and then knowing what to do next. Yeah brilliant.

DAWN: Yes. But I would have got them to keep re-doing it, it was food chains, different organisms different habitats.....thinking that they

CB: But you didn't need to do it.....

DAWN: And I didn't need to..... 20 minutes and they got food chains. I made a joke with them I said 'you've just ruined my whole lesson what am I going to do now?' 'you can do next week's Miss' fortunately I'd planned it! But the weak kids they were like 'ooh, we can do this as well'

CB: yes, how nice for them.

DAWN: It was fantastic yeah....and Henry really had positive feedback.

CB: Brilliant alright, well shall we stop there.

Appendix 5 – A completed survey

Survey for Teachers who have participated in an AfL TLC

As most of you probably know, I am trying to contribute to the knowledge of TLCs by undertaking some research; specifically focussing on the AfL TLC. Please could you answer the following questions:

There are no right or wrong answers, I would like your opinions and reflections on being involved in the TLC.

1. How would you define a TLC?

A teaching and learning community that offers you the opportunity to develop a particular aspect of your teaching over an extended period of time.

2. What do you think are the essential elements of a TLC?

The chance to share ideas and experiences with others in order to develop/improve your teaching.

A new bank of resources and ideas that can be shared.

Having the opportunity to observe others.

Having the flexibility to decide on those activities that might work best for your subject but also being pushed within that to try new things that you might not have considered previously.

3. And what do you think is required for a TLC to work well?

The flexibility and ability to meet on a reasonably regular basis.

Having a group of people with similar objectives and reasons for doing the TLC and the same commitment to the group.

Having time to share experiences and ideas within the sessions

4. Do you felt that as though you learnt as a result of being involved in the TLC?

(Yes/no)

If yes, how did you learn?

From observing others and having to try a new range of techniques in the classroom. This was perhaps enhanced by the positive attitude I had towards the TLC which resulted from the supportive environment that was nurtured in the group.

If not, was there anything that prevented you from learning?

n/a

What would you say is the contribution of TLCs to your overall professional learning?

I feel like I have a wider range of teaching tools at my disposal. It was also a reasonably quick way to develop perhaps a broader experience than I might have done otherwise through analysing my teaching and forcing myself to try new things with a range of groups. I completed this in my first year post NQT so it was nice to have this as a conscious way to continue reflecting on my teaching and developing my skills

The AfL TLC that I did in its first year here was a really positive experience for me and is still impacting on my teaching.

5. What would you identify as the strengths of a TLC?

Wide range of techniques used.

Opportunities for peer observation

Chance to discuss and reflect on teaching practice.

The fact it isn't a one off CPD opportunity. It is something that carries on throughout the year, allowing you the time to embed the most successful elements in your teaching practice long-term.

6. What would you identify as the limitations of a TLC?

Hard to get everyone to meet at a time convenient for everyone.

Second year needed development in order to be as successful as the first year.

Part of the success was down to the group of people and that may be difficult to recreate.

7. What elements of TLC might be transferable to other schools?

The bank of resources and the structure is certainly transferable. I would have thought the whole thing and not just particular elements would be key when transferring to other schools as certain aspects are going to vary subject to subject.

Thank you very much for completing this,

Claire

Appendix 6 – Notes from meetings

Meeting 3 Monday 26th of November 2012

Present: XX XX XX XX XX XX XX XX XX XX XX

Absent: no one

XX- thanks everyone for coming and particular thanks to XX for observing him this morning.

Then fed back from last session using the yellow cards that we wrote on before we left:

he read out some of them; the first one being the example that I had written where I had our students in an A-level lesson to use green pen for the things they knew and red pen for the things they had forgotten whilst answering exam questions and going through the subsequent answers.

He also read out that somebody was using specific learning intentions -something we had focused on last session. And also he read out that somebody had written 'assessing learning'. Again he thanked the group.

XX then went on to say that today we were going to start with sharing successes and failures. And follow that by focusing on questioning (I wondered where he got that from, as this was not my interpretation of today's session)

XX - we would take it in turns to hold the light blue ball and in 30 seconds or less share something that has happened in the last month that has made us feel good.

XX started - she is pleased with her work-life balance, she is trying to get more done in school and do less at home which is working. She threw the ball to

XX - he had two things: the first was the number of year 13 students that offered to stay at the recent open evening, in fact he had so many that turned some away. The second thing was that recently his daughter looked at him, recognised him, and said "daddy". This was greeted by aarrrrrr's all-round

next was XX, he told the group that he is leaving at Christmas (it appeared that not everybody knew) and he relayed how as he has gradually been telling the students that he is leaving this has been met with words and noises from the students suggesting that he will be missed, which he said would be really nice.

XX explained how she works part-time and how usually when she goes home early she just carries on with schoolwork. However last week after leaving school she and a friend went to the cinema to watch the last in the Twilight series, she said she felt guilty but loved it.

XX explained how she had a very difficult bottom set year eight class last year, and how one of the hardest things they have to do in languages is teach the students the past tense. Now that they are in year nine she finds them much easier to teach and has already taught them the past tense and they have been using it successfully, therefore they have all reached level 5 already.

XX shared how last week his wife and daughter went to watch the Twilight movie (he didn't want to go!)

and then threw the ball to me. My turn, I explained how I was a bit concerned about teaching dance to year 8s however after learning the dance with XX and XX and planning the lesson thoroughly I really enjoyed the lesson and it seemed to go well.

XX explained that she had had an issue in school but had been very supported by the head of Department, so whilst it had been an unpleasant experience the tremendous support she received turned it into a good one. The second one XX explained, was that she had spent the weekend with her Norwegian teacher counterpart from the exchange program and how lovely that had been.

XX (at this point I noted that this was her first meeting) explained how her sister had recently had a little boy. And secondly how in the recent year 11 mock examinations all students achieved at least a grade C or above in their oral examination. (I noticed how I was giving positive reinforcement, to those sorts of stories, as I would naturally, nodding and saying well done)

finally XX explained how in his key stage four double option ICT group he had found it really hard to get through the vast quantity of material that he was supposed to. He has trialled group work which seems to be working really well. The second example he gave was how recently a motorist pulled over to speak to him whilst he was cycling, he expected the motorist to have a go at him, but instead the motorist apologised for cutting him up. What a nice story.

Next Jeremy asked the group to look at resource 1.3.1 and gave us a few minutes to read it. At this point I had to dash out of the room in order to copy the personal action plan sheets which

I had forgotten to do. Consequently, I missed XX explaining to the group the post-it note example of AFL that he had tried. I came back in just as XX was asking if maybe it would work better with older students, as asking key stage three students what they still want to know, or things they still don't know, they find it very difficult

XX then explained that we all need to be quick in giving feedback, as everybody was also trying to fill out their personal action plan. At this point I noted that in trying to fill out my personal action plan, and listen to the examples that people were giving, I found it difficult to also collect data. I guess this is one of the hazards of playing the role of both teacher/assistant head/CPD coordinator/researcher/participant!

XX then mentioned his lesson using the basketball. This was the one I went to see, where he asked the students to all stand up and in turn, only when holding the soft hedgehog, they gave an example of part of a plant or human cell including specialist cells. I was really impressed with the knowledge that the use year seven students showed, and between XX and I we shared with the group how successful it had been, even if it was a technique that you would use only occasionally. One of the good things about this technique is that the students had to really think. XX said it was a good technique to use three quarters of the way through a scheme of work so he could check their understanding of previous learning. (This seems to be a good example for the others)

XX went on to talk about how she had used the triangle of learning, but adapted it so that the students could turn them into paper aeroplanes and throw them at a target on the board at the end of the lesson. She would then pick up a few and read them out, and collect them all in at the end to read them. (I love this idea)

XX talked about how he still aims to have no hands up, but that he finds this difficult and forgets.

XX then explained how he falls into the trap of teacher led lessons where he spoon feeds the students, where he tried a different approach where he showed the students and gave them a demonstration, and having got them to talk to their neighbour to work out the answers. To his utter surprise they all had got the right answers. (I wonder why he is surprised by this?) He then muses if they have better retention if they had worked it out for themselves rather than him telling them the answer.

XX interjects suggesting that with all the time pressures it is difficult to not just spoon feed them

XX says that they may now have all the information, but that does not mean they understand it, or that they know it

XX says that they constantly say 'give me the answer'

XX starts by reminding the group that he also was not at the first two sessions, he explains how he has given exam questions to pairs and asked them to rewrite the questions in an attempt to help them understand what the question is asking. He also asks them to write questions on a particular topic. He shares how when he was speaking with XX, he should be encouraging the students to question the question (nice idea). He also suggests that he gets the students to think about what questions they could be asked on this topic, in a way teaching them how to think, getting them to think about what they're writing not just the answer (I note in my journal that XX talks too much, repeats himself, and ventures off topic)

XX suggests that students should not be constrained by bullet points

XX says that they are taught stock answers

XX shares how the exam board asked a new question last year and nationally all students struggled (now he's really going on a bit and repeating himself)

XX suggests that they were trying to test understanding not merely what they've been taught

XX shares how she prepared and wrote a series of questions some of which are true and some of which were thoughts and she asked the students to spot the full ones and rewrite them, she noted that this was easy to do and a teacher could easily write three questions up, even if they had not prepared them

XX says that this could be done whilst the lesson is unfolding, to which a few people nodded

XX then asks us to look at resource 1.3.2 and gives us a period of time - he said 5 to 8 min, but the actual time I have no idea) to discuss them and pick one that we're going to try before the next meeting

XX and I then spent some time discussing a range of techniques, I put a tick next to the ones that I have tried. There are 10 suggestions and I have tried five or six of them, Amanda and I go through them and I share when I have used ABCD cards for the geography lesson when OFSTED came in, with success. We talk about entrance tickets, and we talk about lolly sticks. I select 'Wait watchers' as the one example that I want to try, which is trying to wait at least

three seconds after asking a question to allow students to think. I could elicit the help of the student with a stopwatch to ensure this happens.

The group come back together and XX gives another example of when he was on interview and a student did not know the answer to a question, so XX suggested that the student 'phone a friend' however in his feedback the headteacher was not happy with this.

XX says that he asks a question, and gets blank looks , so he rewords it and gets more blank looks, and then he asks another question, but he notes that the students have learnt that if they do not answer his questions either he doesn't force an answer or he answers it himself.

XX says she also finds that sometimes they just wait

XX says another example where he would play a game with them to give them the answer such as "the answer rhymes with motosynthesis" but he realises how ridiculous this is as he has created a rod for his own back

XX suggests that part of the problem is that we are making up questions when we need to plan them

XX goes back to his interview experience and explains that he didn't want to just tell them the answer because this is just the spoon feeding, I suggest that perhaps the Headteacher wanted you to say that the whole class was working pairs to come up with a model answer to the question, and after 30 seconds ask the same students the answer

XX relayed to the group what a lecturer at college had said to him "you are not a pot of knowledge that I'm going to tip stuff into"

XX then asked us to make sure that we had planned out observations in pairs

all of a sudden the time is 4.36 and so people need to go. XX thanked people for attending.