The value and impact of informal learning on the professional development of teachers in Further Education

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MPhil **2020**

Updated July 2020

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There is concern amongst Further Education (FE) teachers about the future of the sector due ongoing funding cuts associated with austerity policies. Continuing professional development is important for those working in the FE sector, particularly given the changing shape of workplaces and FE itself. However reduced funding can lead to what Fuller and Unwin (2005) describe as ‘restricted’ rather than 'expansive workplace environments making it difficult to find the space and time for professional development. It is therefore important to look at alternative ways of encouraging professional development for our teachers.

Research literature, both related to education and the corporate world consider informal learning to be effective and consequently an important part of the developmental process, so it is timely to consider informal learning as one possible solution to this deficit and test the theory that “….. informal learning is not an optional extra but one of the main factors that shapes what kind of human being you become.” (Coffield, 2009, p.25)

Informal learning is classified as the unofficial, unscheduled impromptu way people learn to do their work and generally takes place without much facilitation or structure. It tends to occur whenever people have the need, motivation and opportunity to learn.

This thesis focuses on establishing the value and impact of informal learning on teacher’s professional development by introducing and evaluating informal learning opportunities for a group of FE practitioners and exploring the contextual factors influencing the ability to learn well enough to implement desired solutions. Evidence is gained primarily through practitioners’ stories of experience and is influenced by an interpretivist research methodology. Findings concur with the literature and demonstrate that in order to engage in effective informal learning practitioners need time, support and recognition. Critical reflection and some proactivity on the part of the practitioner to learn are key elements for successful informal learning. (Marsick and Watkins, 1990).

Key Words: Professional Development; Informal learning; Practitioner research

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Glossary

ATS	Advanced Teacher Status
BERA	British Educational Research Association
CIPD	Chartered Institute of Personnel Development
CPD	Continuing Professional Development
ETF	Education and Training Foundation
DfEE	Department for Education and Employment
FE	Further Education
HE	Higher Education
ILT	Information Learning Technology
LOCN	London Open College Network
NCTL	National College for teaching and Leadership
NOCN	National Open College Network
OECD	Organisation for Economic Co-operation and Development
OTLA	Outstanding Teaching, Learning and Assessment
QTLS	Qualified Teaching Learning and Skills
SET	Society for Education and Training
SLT	Senior Leadership Team
SOLA	Scheduled Online Learning and Assessment
UCU	University and College Union
VLE	Virtual Learning Environment

Chapter 1 Context and Problem

The quest to investigate the value and impact of informal learning

> *"Every child deserves a good education, and to feel that they have received one. We think this means they should come out of school …. keen to develop their talents and interests; positive resourceful and imaginative in the face of difficulty and uncertainty; having commitment and pride in a job well done; whatever it may be" (Claxton, 2017. p.9)*.

This is a sentiment that I wholeheartedly agree with and believe that it is something we should also pursue for our teachers in their professional development. This research aims to explore the value and impact of informal learning on the professional development of teachers in further education by answering the following questions:

- Is informal learning relevant for professional development?
- Does informal learning help to develop 21st Century skills?
- Is the value of informal learning dependent on recognition?

Professional development is the development of competence or expertise in one's profession, or the process of acquiring the skills needed to improve performance in a job. The first modern usage of the term 'professional' referred to people who saw themselves as something other than employees (Sennett, 2009, P.246). Coffield (2017) refers to professional development as professional learning and argues it could be 'the main engine of improvement' if used effectively. Staying up to date is essential in every profession and teaching in Further Education (FE) is no exception. In 2014 the Education and Training Foundation (ETF) updated the professional standards for the sector (ETF 2014). These standards state that teachers should be committed to maintaining and developing their expertise to ensure the best outcomes for learners. These ideas are not new and are reminiscent of aspects synonymous with the concept of craftsmanship. Hyland (2014) argues the main elements of craft are long term knowledge, skill development, ethical practice and social collaborative involvement, all areas contained within the ETF Professional Standards and aspects that will be referred to throughout this study. Within the section of the standards on 'professional knowledge and understanding', teachers are encouraged to develop a deep and critically informed knowledge and of both

theory and practice. As a teacher educator the professional development of teachers is paramount. Czerniawski (2018) suggests that a wider interpretation of professional development should be used which embraces both formal and informal activities that enable critical professional reflection and the opportunity to improve teachers' professional practice throughout their career. Unfortunately the possibility of this taking place is reduced by the effects of austerity, increased workload and an ever changing learning environment.

I work as a lecturer and teacher educator in a Further Education College which predominantly delivers vocational courses, but also has provision for work based learning, Higher Education, High Needs and Community Learning. The college is based over numerous sites and has a varied demographic. There are 400 academic and business support staff who have a teaching role. In my role as a teacher educator I see regularly the effects of reduced funding in the form of increased contact hours, larger class sizes, reduced staff and additional responsibilities. It is this organisation that provides the context for this research.

Due to deregulation within the sector, since the Lindfield Report (2012), there is no longer a requirement for those teaching in FE colleges, adult and community learning and work based learning to have a professional qualification, making the concept of professional development even more important as it may be the only opportunity a teacher has to be given the support and guidance they require. Prior to deregulation the drive to improve quality led to raising the status of FE professionals and professionalising the workforce through formal teaching qualifications. Following the Foster Review of FE (2005) a new set of Teacher Education qualifications were introduced, membership of the Institute for Learning was compulsory, a period of professional formation leading to the achievement of Qualified Teaching Learning and Skills (QTLS) and a continuing professional development requirement to maintain QTLS status came into force. The Association for Teachers and Lecturers argued in 2014, following this deregulation, that high-status professions are usually typified by mandatory qualification requirements, strong CPD entitlements and a professional body that provides accountability and voice. They highlighted the medical and legal professions as examples of this and argued that they both had respected professional bodies who upheld standards and qualification frameworks

and provided a voice for their professions. It could be argued that without the requirement for a formal qualification the 'professional' aspect of professional development should be removed.

Teacher training is provided within our college but achieving a Level 5 teaching qualification is not mandatory. The recommended level of qualification for lecturing staff is a level 4 Certificate in Education and Training. New staff attend a corporate induction and a 2 hour input on teaching, learning and assessment. There is no official mentoring support for new teachers, but they can access support from the Advanced Quality Practitioners who also provide support for those who seek assistance following their peer review. As part of this support teachers will have coaching to help them identify strategies to address their areas of development. There are 6 cross college CPD days throughout the year where teachers are given the opportunity to complete their mandatory training and update their skills in areas that have been prescribed by the Senior Leadership Team (SLT) and their direct managers. The performance development review that teachers take part in once a year provides an opportunity to identify areas for development, but there is limited support or funding to address any areas that are raised.

Since the removal of the Workforce Regulations within the FE Sector in 2012 it is no longer a legal requirement for all teachers and trainers in the education and training sector to make a declaration of their CPD each year. There is also no minimum number of hours of CPD that a teacher within the FE Sector needs to complete. As a member of the Society of Education and Training (SET), which replaced the Institute for Learning (IFL) when it was disbanded in 2012, there is an expectation that a teacher will remain up to date with their subject specialism and approaches to teaching and learning and are asked to make a commitment to CPD on renewal of membership (www.set.et-foundation.co.uk). In addition the SET code of practice (2018) encourages all members of SET to work towards the requirements of the 2014 Professional Standards for Teachers and Trainers and assess themselves at least annually against the Professional Standards and to build their own professional development programme based on this comparison. The continuing professional development (CPD) that is undertaken can be formal or informal and it is argued that ad hoc, self-directed professional development often has the most impact on teaching and learning. Boyd, Marris and Murray (2001) argue that professional

learning for teacher educators is deemed far more valuable, not through formal provision and organised programmes, but through informal workplace learning. Membership of SET is not compulsory and requires an annual fee and this is reflected in their membership numbers, which equates to a small percentage of the number of teachers and trainers working within the FE Sector.

As previously identified there are a number of dedicated CPD days during the college's academic year, which are generally planned around areas that have been highlighted during the peer review process. In addition staff are required to maintain their mandatory training for the college to be compliant. There is also a long term award scheme and allows staff to apply for CPD, which has to be approved by the line manager and the SLT. Funding for qualifications is generally offered with 50% payable by the member of staff and a Professional Development Agreement which ties the member of staff to the college for 2 years. These changes have been gradually introduced over the last 5 years and are a sign of the reduced funding that exists within the FE sector and the college's approach to this reduction in funding. Gone are the days of remission for new members of staff or for initial teacher training courses, in fact many members of staff who attend teacher training sessions in work time have to pay the time back and the existence of a mentor and free initial teacher training is also unfortunately a thing of the past.

Lack of funding in the FE landscape

To compound the issue the FE Sector, as a whole, is struggling to survive with the funding it is allocated and this has a detrimental effect on the time and money that it can give to the professional development process. There was some additional funding pledged in the Autumn 2017 budget (assets.publishing.service.gov.uk) but it was in relation to the introduction of T Levels and no timescales were given. It was acknowledged that far more funding was needed to support CPD for staff with these new developments, but no further information has materialised. In fact, work commissioned by the Nuffield Foundation (Institute for Fiscal Studies 2017) around comparisons of spending per pupil across different stages of Education would indicate that by the end of the current spending review period 2019-20 spending per student in FE will only be just above the level seen 30 years ago at the end of the

1980s which in turn has a detrimental effect on the amount of money that allocated to staffing.

Lack of funding has also led to increased workloads which reduces the professional development opportunities a teacher can take advantage of. In 2015 concerns about teacher's workloads prompted the Workload Challenge (National College for Teaching and Leadership) which concluded that 79% of teachers did not feel they have a good work life balance. The study was not specifically aimed at the FE Sector but represents the same issues being faced. As part of the Government's response to the NCTL funded Workload Challenge Research Projects (2015) an Independent Review of Initial Teacher Training (Carter Review 2015) was commissioned. One of the recommendations from the review was that 'Initial Teacher Training should set realistic expectations about what is and what is not an acceptable work load and should provide some practical strategies for smart working and achieving an appropriate work life balance.' (Government Response to Workload Challenge 2015 p. 7) Although this demonstrates a realisation by the Government that something needs to be done it does not address the issue for more experienced teachers who often have even greater workloads. In 2016 the UCU conducted a workload survey for staff in the HE and FE sectors which supported the findings from the workload challenge. Amongst the key findings are staff in both HE and FE are working an average of more than two days unpaid every week; workload is unmanageable and unsustainable for the majority of academic staff and lecturers; and professional and career development is suffering as a result of increasing workload.

Further evidence of reduced funding within the college are reductions in staff; for the last 7 years there have been restructuring and redundancies at the end of each academic year. This had led to a greater reliance on agency staff and hourly paid lecturers who now make up a large percentage of the workforce. In addition, there has been a conscious decision to create more business support and term time contracts for employees who are delivering courses. Academic staff are now required to deliver 850 contact hours over the academic year but given no additional hours for managing courses and the associated tasks that come with such a responsibility. Class sizes are now larger which has also led to an increase in marking and the additional responsibilities that come with more students. A recent study commissioned by the Education and Training Foundation (Training Needs in

the Further Education Sector, 2018) supports this as it identifies the difficulties that arise in organising training and development because of limited budgets and the lack of availability of staff.

FE teachers are concerned about the future shape of the sector due to the current and imminent funding cuts associated with the austerity policies and the difficulties in finding the space and time for professional development. Continuing professional development is vital for those working in the FE Sector, particularly given the changing shape of workplaces and FE itself. It is therefore important to look at alternative ways of delivering professional development to our teachers. A Pan-European study of teacher educators supports this concept as it indicated a strong desire by teacher educators to be exposed to alternative ways to educate teachers so that they could start to develop more suitable professional development in keeping with the ever changing landscape (Czerniawski, 2018).

Increased workloads in the FE landscape

Talking to colleagues, lack of time and increased workloads are not unusual and is something replicated both regionally and nationally. The general consensus from teachers is that they do not have enough space or time to develop and this is having a detrimental effect on their ability to deliver effective teaching, learning and assessment. Especially in relation to the perceived demands of the Ofsted Inspectorate. Teachers are aware of the continuing changes taking place in the education sector and the need to keep pace with them but they are often at a loss as to how they should do this. It could be related to the fact that they have little time to step back from the situation and think about what needs to be done, something that Coffield alludes to when he states:

> *'The vast majority of tutors are willing to learn and improve their teaching, but wonder where the time is to come from, if nothing is done about increasing workloads and endless repetitive administrations'. (Coffield, 2008 p.23)*

When Coffield (2017) discusses the concept of professional learning as an engine of improvement he argues that it is dependent on the time that is allocated to the process. He suggests that teachers' workloads can reduce their ability to develop on a personal basis with a subsequent detrimental effect on their professional learning.

He argues learning communities are created when innovative teams of educators have the freedom, time and resources to take risks, fail and subsequently improve.

Alternatively it could be because teachers are demotivated and do not feel supported in their role. Where workers are demoralised there is little evidence of craftsmanship, a concept that is deep rooted in professional development. Collective craftsmanship is created by sharp mutual exchange and shared commitment (Hyland 2014). These opportunities can be created but there needs to be a commitment from those involved in the process and there needs to be the time and dedication to achieve this. It may be time to look outside the education sector and consider learning and development in other organisations, where informal learning has gained momentum.

Informal learning is gaining momentum in the workplace due to its capacity to adapt and transform in line with the continual change in society (Matthews 2013). Although there is no definitive answer on what constitutes informal learning Dale and Bell (1999) introduce a clear definition which outlines its parameters, describing informal learning as:

> *'Learning which takes place in the work context, relates to an individual's performance of their job and/or their employability, and which is not formally organised into a programme or curriculum by the employer. It may be recognised by the different parties involved, and may or may not be specifically encouraged.' (Dale and Bell, 1999 p.1)*

This is reiterated by Cross (2011) who classifies Informal learning as the 'unofficial, unscheduled, impromptu way people learn to do their jobs' (Cross, 2011 p.236) stating it generally takes place without much facilitation or structure and tends to take place whenever people have the need, motivation and opportunity for learning. Marsick and Watkins (1990) suggest that informal learning is a process of learning that we experience every day, often at subconscious levels.

The Informal learning landscape

Informal learning is not a new concept, it is deep rooted in educational theory. In 1902 Dewey recognised the self-directing capacity of learners and Lindeman (1926) was a firm advocate of informal learning and believed in using learners' experiences as a starting point for education. Lindeman advocated that the resource of highest value in adult education is a learner's experience. Lindeman's initial concepts were

developed further by Knowles (1984) when he coined the phrase ‘androgogy’ and introduced the concepts of adult learning. In developing his theory of adult learning he argued characteristics related to informal learning would maximise the learning experience. Knowles’ six principles for adult learning included self-concept, where a learner moves to being more self-directed; experience which is used as a resource in the learning process; a readiness to learn, which is required when embracing informal learning opportunities; an orientation to learning, which changes the emphasis from subject centredness to problem centredness and lastly a motivation to learn. Despite discussion in educational circles of the importance of informal learning in the developmental process, its growth has remained limited. There have been work based studies completed on a regular basis, such as, Marsick and Watkins (1990); Dale and Bell (1999); Cofer (2000) and Eraut (2004). All of these studies agreed that there was merit to informal learning within the workplace, but that it should not replace formal learning, It should complement it because informal learning supports and is supported by formal learning activities.

Informal learning has become a greater part of work based development. The most recent Towards Maturity Report (2016) published in association with the Chartered Institute of Personnel and Development (CIPD) suggests that more successful organisations are placing a greater emphasis on informal learning due to its apparent effectiveness with 96% of learning and development leaders expecting to increase self- directed learning in their organisations in the next year (Overton 2016). In addition, learners are requesting greater flexibility in their learning by having control over the pace and place of learning, 88% want to be able to learn at their own pace and 52% report that they learn more by finding things out for themselves than from the classroom or a formal course. (Overton 2016)

Informal learning can be categorised into activities such as communities of practice, virtual knowledge, shadowing, mentoring and coaching and on the job experience. According to the 70:20:10 Model popularised by Charles Jennings, 90% of our learning happens through these mediums (Overton 2016) and social collaborative learning is a large part of learning within organisations who have adopted the 70:20:10 approach. The concept of community is something that has existed for centuries and is an integral part of craftsmanship. Sennett (2008) states that it ‘brought people out of the isolation, personified by the cave dwelling cyclopes, craft

and community were for the early Greeks indissociable' (Sennett, 2008 p.22). This has continued to evolve and in the workplace could now be argued to be the social collaborative activities that occur on a daily basis. Where there is co-operation in a workplace and a sense of community high quality results demonstrate its effectiveness (Sennett 2008). Sennett provides examples of where organisations, such as the Linux Community have developed a high quality product through such a sense of community. It could be argued that these are also aspects that are fulfilled by informal learning and could be considered to be the 21st century equivalent of craftsmanship.

The changing landscape of work

The world of work is changing and this may be why it is now the time to place greater emphasis on informal learning, as it is more appropriate to the professional development that occurs in the workplace. The success of an organisation is dependent on its ability to stay ahead of the competition in a world that is constantly changing, in order to do this an organisation needs employees who are highly motivated and able to learn, innovate and adapt to external changes very quickly (Senge 1990). Further Education establishments also need to maintain a competitive edge and need to constantly adapt and change in line with the needs of their local communities. Introducing learning that is more flexible and adaptable to this concept is advocated in the business world and Price (2013) argues is equally as applicable to the educational sector. Dale and Bell (1999) identified that there are many different activities that can inform informal learning and although used regularly in the workplace it is difficult to measure and therefore accredit. They stated that learning would only take place if there was a need for it and any new knowledge and skills needed to be practised and used to improve performance otherwise it would be lost.

Cross (2007) argues that the world of work continues to change and that the future is knowledge work. He uses the definition advocated by Davenport (2005) and outlines how he fits the role:

> *'I want to set my own schedule and choose where I work. I think for myself. No one will ever reduce what I do to a flowchart. I like to work on things I help to create. I'm always building for the long term while getting today's work out*

the door. And if I don't feel good about doing something, I probably won't do it well. I work for me first and my organisation second.' (Cross, 2007 p.8)

If this is the future we are working towards we should be thinking about how we provide professional development that works for our employees so they continue to feel good about what they are doing and produce outstanding work. One way of achieving this could be to follow Matthews' (2013) suggestion that when training is done it should be better integrated into the workspace and made more relevant to real-life needs. This is something that informal learning achieves and as such could be part of the solution to the professional development dilemma posed in the FE Sector.

Price (2013) expands on these concepts further by discussing the move towards 'commodity jobs' which are standardised and easy to replicate and 'innovation jobs' which require specialised and unique skills this analogy could be drawn to the concept of teachers as 'commodity jobs' rather than 'innovation jobs'. He discusses how this should influence the way we start to educate our learners to ensure that they are ready for this new way of working. He introduces us to the philosophy of 'SOFT' (shared, open, free, trust) in which he argues that there are a new set of conditions in existence which we should embrace to move education forward, enabling us as learners to become more independent to survive in a constantly changing work environment. His central argument is if we are going to make the most of this philosophy we need to design our future learning around these values and actions, bringing the power of sharing and collaboration to the forefront. In an open organisation information and processes would be freely shared building trust and collaboration. This concept should be replicated in the education system and teachers and the organisation would need to trust that their students and employees given more freedom and responsibility would exceed their expectations. This change of emphasis could potentially create conflict for FE teachers who are presently required to provide and create their resources for delivery and assessment. However if a similar ethos was to be encouraged in their professional development the promotion of these values and actions may become easier. Price (2014) argues that no one can be made to learn anything and we cannot motivate learners to learn. He believes engagement precedes learning and when it comes to learning informal beats formal. An individual's capacity to learn is constantly changing and this is

something that could be enhanced through ongoing informal learning as opposed to the occasional and prescribed formal learning events that presently take place in many FE establishments.

The changing landscape of education

Price's 'SOFT' concept is at odds with the present education system and consequently might have no influence on delivery methods in the immediate future but there is a growing discontent amongst educationalists which is starting to be heard. Education Forward (2017) brings together some of those ideas and centres around the concept that schools are no longer fit for purpose.

> *'Does there really need to be a formal experience of schooling so that children will get on with others, learn to adopt a healthy lifestyle and not fall into bad ways.' (Waters, p.50)*

It demonstrates that there is a need to adapt in light of the changes in society and advances in technology. It discusses what the education system should look like, how we should be developing learners and ways in which the curriculum should be taught. A good curriculum is seen to be one based on enquiry, problem solving, using research skills, where a flexible learning environment is encouraged. It questions the need for formal education and considers how we should be preparing learners for a future at work what looks very different from that experienced by those who are teaching them. These discussions reiterate the need to consider whether professional development for teachers needs to change to ensure that teachers have the necessary skills to deliver this alternative provision as these learners progress into the FE sector. If the need for formality is being questioned amongst learners in the present education system should it also be questioned for the other stakeholders, such as the teachers? As part of preparing learners for the work environment learners need to develop their creativity and innovation, a 21st century skill which it is felt is important in a volatile, uncertain, constantly changing, agile environment (CIPD 2016)

> *'In education, we tend to turn out conformists, stereotypes, individuals who education is completed, rather than freely creative and innovative thinkers … Why be concerned over this? In a time when knowledge, constructive and destructive, is advancing by the most incredible leaps and bounds … unless individuals, groups and nations can imagine, construct and creatively revise*

new ways of relating to these complex challenges, the lights will go out.' (Rogers, 1961 p.80)

This demonstrates that these ideas are not new and have been around for some time. However the continuing advancements in technology mean that now more than ever there is the opportunity to collaborate with others and develop our skills on a daily basis. Robinson (2015) argues that industrialised education is no longer appropriate and we should now be working towards what he describes as an organic education, which will lead to creativity and innovation, skills that are needed to survive in the 21st century.

" We now have limitless opportunities to engage young people's imaginations and to provide forms of teaching and learning that are highly customized to them." Robinson, 2015. p.xx)

If this applies to young people it should also apply to teachers and could potentially influence the professional development they are offered. However this will depend on its perceived value and impact and in order to calculate this there needs to be some process of measurement or evaluation in place. Therefore consideration needs to be given to how informal learning can be measured. Mattox (2012) felt that simple structure measurement was possible although complex and that processes need to be created prior to the informal learning taking place to allow for evaluation, although traditional evaluation models, such as Kirkpatrick (1967) and Phillips (1999) would still not be easy. This inability to accurately measure effectiveness has an influence on its perceived value as its suitability for certification, which is a tried and tested method of recognition, is questioned. Dale and Bell (1999) suggest as informal learning is difficult to recognise for qualification purposes more work is required to improve accreditation, a belief that would still appear to hold true despite the passage of time.

Recognition of the informal learning landscape

Informal skills acquisition does not usually attract formal recognition, although awarding badges to accredit this kind of learning is gaining in popularity. However, research has found that reliance on informal learning alone has some drawbacks, including difficulty in accrediting or using it for formal qualifications (Cofer, 2000). Measurement of its value could therefore be related to the recognition it achieves

both by the learner and the organisation as research shows that learners still desire some formality in relation to acknowledgement of the informal learning that has taken place. It is therefore possible that accrediting the learning they have completed could provide a possible answer. Despite work pressures learners will, however, invest time to advance their careers and formal certification is a great motivator for learning (Overton 2016).in fact recognition is rated in the top three success factors for one in four learners and could be achieved through certification or formal qualification (Overton 2017). This concurs with the research completed by the Education and Training Foundation (2018) which states that from an individual perspective there is a particular emphasis on training that leads to a formal qualification or is accredited in some way. The Open University (2016) also supports these claims by stating that accrediting informal learning drives user engagement and motivation as recognition and reward is gained through sharing the success with others. Dale and Bell (1999) agree that to maximise and apply learning acquired informally it needs to be recognised and valued.

Although not all professionals require recognition, Sennett (2008) argues that we all share the raw abilities to help us become good craftsmen and that it is a 'relentless pursuit of excellence as a badge of distinction' (Sennett, 2008 p. 245) that drives us forward. The recent introduction of the Advanced Quality Teacher Status by the Society of Education and Training has elements of the concept of craft. It encourages the learning of something over an extended period of time during which a teacher hones their skills. It provides recognition, as once there would have been through the guild or equivalent and the existence of an experienced teacher who guides and supports the teacher through the process. This example is not the only aspect of craft that can still be seen in present day teaching as craft is synonymous with long term knowledge, skill development, ethical practice and social collaborative involvement (Hyland 2017), but it provides a clear example of the recognised status that professionals seek as they hone their craft.

Informal learning exists in adult education, but it would appear that the studies that have looked at recognition globally (Singh, 2015) have been based on work that is undertaken in higher education. Case studies are provided which illustrate that informal learning can be recognised and accredited, allowing learners with relevant

knowledge and experience to continue into higher education. UNESCO have formulated guidelines on the recognition, validation and accreditation of the outcomes of non-formal and informal learning which can be consulted but are not legally binding and exist to give guidance to member states on recognising the informal learning that takes place.

> *'Today, in a complex and fast-changing world, it is necessary for individuals to acquire and adapt competences (knowledge, skills and attitudes) through all forms of learning to cope with various challenges. However, qualifications systems in many societies still focus on formal learning in educational institutions.' (UNESCO GUIDELINES for the Recognition, Validation and Accreditation of the Outcomes of Non-formal and Informal Learning, 2012 p.3)*

It is interesting to note that the emphasis on the recently published research conducted by the Education and Training Foundation into the training needs of teachers predominantly concentrates on the formal learning experience and this emphasis may in part be the reason why further education establishments are reluctant to change the professional development provision that they provide. In addition, Educational Excellence Everywhere (2016), the white paper outlining the plans to achieve educational excellence in the school sector, over a five year period, advocates the replacement of the present Qualified Teacher Status accreditation with something more robust, which provides a clear indication that recognition is required by the education sector to measure learning and practice.

Alternatively an organisation can provide recognition for its employees, but to arouse the aspiration for quality and make good on it an organisation has to be well crafted in form. Examples provided by Sennett (2008) include Nokia who maintain open information networks which encourage their employees to collaborate and develop their skills and Apple who are willing to wait to bring their products to market until they are really good. This commitment to time and community allows the learner to develop and provide a more effective product but this is something that appears to be lacking for teachers in further education. A lack of commitment to professional development can consequently have a detrimental effect. A well-crafted organisation will focus on whole human beings and in time it will encourage activities, such as

mentoring and introduce standards that can be understood and followed by all and provide the recognition that some individuals require.

Navigating towards the world of informal learning

Although informal learning cannot be quantified easily, it does not mean that it is not worthwhile. Dedicating more time to measuring it might actually allow us to determine its value and impact on the professional development of teachers, themes that will be pursued in the literature review by considering the following questions:

- What is informal learning?
- Is informal learning relevant for professional development?
- Does informal learning help to develop 21st Century Skills?
- Is the value of informal learning dependent on recognition and how can this recognition be achieved?

In addition to considering the existing literature a learning community consisting of 8 teachers with responsibility for online learning as representative of the wider college population has been established as a key feature of this research. As part of the research they have been encouraged to participate in informal learning and record their experiences providing both qualitative and quantitative data in order to obtain a balanced view. The use of quantitative data, although open to interpretation provides statistics that can be analysed and used to demonstrate participation and involvement in the learning community discussed during this research process. The qualitative data allows for greater depth and attitudes on the area of learning being researched. Therefore methods of collecting both qualitative and quantitative data will be used. However, the main method of data collection will be through the generation of case studies which can produce valuable data which extend interest beyond the initial boundaries of the research.

> *"Research cannot always change the world (it rarely does, so even if the world is conceived as being just that small piece of it of particular interest to the researcher at a particular moment in time), but it can always aim to be of interest beyond the researcher and the case concerned." (Tight, 2017 P.29)*

Case study research in education concerns itself with people, places and events (Sharp, 2009). It has been chosen because it lends itself particularly well to providing detailed narrative stories of real people in real settings, as promoted by Connelly and

Clandinin (1990). It will allow for concentration on the specific rather than the general, favouring depth rather than breadth (Burton, Brundrett and Jones, 2008). The case studies will be created through observation, reflective journals, structured interviews, group discussions, questionnaires and documentary research with the use of more than one method providing an opportunity to triangulate.

Further Education operates within a changing landscape which is politically driven impacting on budgets and time and teacher educators and teachers themselves acknowledge that new approaches and models are required to keep pace with change. We need to take into account the impact of workload and support teachers to feel positive and deliver effective teaching. Considering informal learning as a means of doing this might be a possible solution but it requires us to consider its value and how it is measured. This research aims to encourage a continuing commitment to professional development by focussing on teachers as whole human beings and providing them with alternative ways of learning to assist them in developing their craft.

The following chapter will pursue these aspects further by navigating the world of informal learning to find out what it is, whether it is appropriate for professional development and whether its value and impact are based on recognition.

Chapter 2 Literature Review

Navigating with focus through the world of informal learning

> *'If all learning were to be represented by an iceberg, then the section above the surface of the water would be sufficient to cover formal learning, but the submerged two thirds of the structure would be needed to convey the much greater importance of informal learning.' (Coffield, 2000 p.32)*

In order to determine the value and impact of informal learning it is important to answer a number of questions. What is informal learning? What makes it valuable and what measures are in place to calculate its impact? These concepts are often inseparable because the very definition of informal learning could also be the very thing that makes it valuable to its participants. However to provide some structure to the literature review each concept will be addressed separately.

What is informal learning?

> *'Many 'stories' are being told about informal learning, and what is clear is that there are many stories to tell and many ways to tell them.' (Garrick, 1998 p.13)*

The concept of informal learning means different things to different people and there is no definitive answer on what constitutes informal learning. As a concept informal learning has been around for a long time, it was first used by Kapp in the 1800s and then discussed by Lindemann (1926) and later Knowles (1984) when he introduced the idea of informal learning and the principles that guide adult education. The debate has continued with key studies by Marsick and Watkins (1997), Dave and Bell (1999) and Eraut (2004). The discussion around informal learning has gathered momentum and been embraced through models, such as, the 70:20:10 model popularised by Charles Jennings (Cross, 2007), which suggests that 70% of our learning within organisations happens informally, 20% happens through other people and 10% happens through formal events, such as training courses. The 70:20:10 model represents a fundamental change from producing and delivering formal learning to creating and managing environments in which learning is a part of work. Organisations across many sectors are using this model and integrating learning to improve business performance (Overton, 2016). As Coffield (2009, p.25) reminds

us, "….. informal learning is not an optional extra but one of the main factors that shapes what kind of human being you become."

Matthews (2013) states that informal learning is any learning or collaboration that takes place outside of a class, seminar or workshop, or that which is beyond the scope of a self-study course and away from any environment recognised as part of formal learning. It is often not recognised as 'learning' because a lot of it is an exchange of tacit knowledge. It is considered to be the most powerful form of learning, simply because it is informal (Matthews, 2013). It is learning that takes place in context and it has meaning. Informal learning happens in real time because the learner is confronted by a situation in which they need information and they respond to this need, consequently it is seen as a short term learning intervention. Marksick and Watkins (1990) concur with Matthews' definition of informal learning, they see informal learning, which also includes incidental learning, as something that may occur in institutions, but is not typically classroom based or highly structured with the control of learning resting primarily in the hands of the learner. It is intentional and takes place wherever people have the need, motivation and opportunity for learning. Cross (2013) suggests that informal learning is the unofficial, unscheduled, impromptu way people learn to do their jobs and draws on an analogy with bus travel:

> *'Formal learning is like riding a bus: the driver decides where the bus is going: the passengers are along for the ride.*
> *Informal learning is like riding a bike: the rider chooses the destination, the speed and the route. The rider can take a detour at a moment's notice to admire the scenery or go to the bathroom.' (Cross 2013 p.236)*

Garrick (1998) discusses the rise in informal learning 20 years ago arguing that it was due to a move towards 'vocationalising' education, although despite a greater emphasis on vocational education through apprenticeships and technical levels, this still does not appear to have come to fruition. Informal learning, as outlined previously, is not a new concept and has been discussed as part of learning theory for nearly a century. As previously highlighted it was first used by Kapp in the 1800s and later in 1916 by Dewey and in the 1920s by Lindemann and Rosentock (1926). Dewey (1933) argued that we are always trying to work out what to do in an experimental way and that reflection on experience can be used to help us do this.

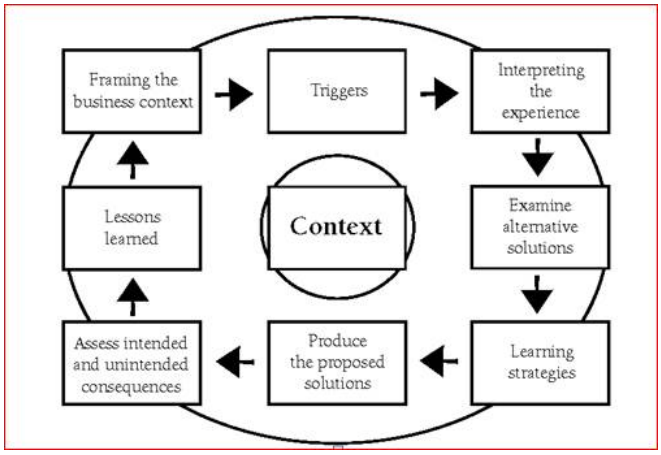
This experimental approach means that action is taken and the consequences are observed, it allows colleagues to get involved and subsequently learning is shared. However reflective thinking needs to be developed because individuals may not be sufficiently critical about the ideas that occur to them (Gregson et al, 2015). It is all too easy to jump to conclusions or to take the first answer in order to arrive at an immediate solution. In this way the learning can be short term which is often one of the criticisms of informal learning. Dewey identified five general features of reflective thinking: initial confusion and doubt; thinking about possible reasons for the situation; looking at all the evidence; devising a hypothesis; and taking action. Following this approach ensures that situations are not rushed into in a 'trial and error approach', which is often labelled as informal learning, and a more 'inquisitive' approach is taken leading to a greater emphasis on challenging what already exists, something that does not always take place in informal learning where a 'quick fix' is being sought in order to move onto the next learning experience. Lindemann (1926) was a firm advocate of informal learning and believed in using learners' experiences as a starting point for education. However it was Knowles who brought it to greater prominence when he introduced his theory of adult learning. Although these theorists advocate the benefit of informal learning its longevity is questioned if certain factors are missing. As previously discussed in chapter 1 of this thesis Knowles (1984) introduced six principles that need to be present for adults to learn effectively. These principles included the need for an adult to be responsible for their own life and to be able to self-reflect and they need to play a prominent role in the learning experience. As Matthews (2013) agrees adults become ready to learn when they experience a need to know or do something in order to perform more effectively in some aspect of their lives.

> *'Informal learning is ubiquitous it happens everywhere all the time: It is like breathing: it's natural and we can't stop doing it any more than we can stop breathing. Much of it is simply a side-effect of living our lives.' (Matthews, 2013 p.3)*

Knowles (1984) suggests that the task that is being undertaken needs to be life centred and finally there needs to be a motivation to learn, arguing that informal learning works when the need for the learning exists. However Knowles introduces some additional factors which include the need to practise and use the new skills to improve performance and for the learner to reflect on the experience. Despite the

additional factors introduced the foundation for the theories still rests on the concepts introduced by Dewey at the turn of the century which advocates individuals can become more active decision makers through reflection by enriching and fertilising life experiences. Marsick and Watkins (2001) develop these ideas further with their model of informal and incidental learning.

Figure 1 Marsick and Watkins's informal and incidental learning model as adapted with Cseh



Source: V.J. Marsick and K.E. Watkins, 'Informal and incidental learning', *New Directions for Adult and Continuing Education*, Vol. 2001, issue 89, p. 29.

Marsick and Watkins (2001) found that informal learning generally takes place without much external facilitation or structure. There are many contextual factors influencing the ability to learn well enough to successfully implement the desired solution, such as time, resources, people from whom to learn and a willingness and motivation to learn. All themes that seem to be recurring in research that has been undertaken in this area. They argue that adult learners need to be taught strategies to make this kind of learning more visible and more rigorous, stating the need for conscious awareness so that informal learning can be put into practice in the future. There needs to be an element of critical reflection and some proactivity on the part of the learner to learn. Finally there needs to be evidence of creativity to encourage the learner to consider a wider range of options. Cofer (2000) suggested that not only is informal learning individual it rests primarily in the hands of the learner. Despite Matthews' (2016) claims that informal learning can be the most powerful learning because it is informal, it is in context and has meaning, he also highlights that it can

be inefficient and time consuming. Without someone to guide the learner through the process sometimes misunderstanding can occur and when the learner is learning in isolation without the full picture misconceptions can take place. A perfect example of this is the Indian Fable of the blind men and the elephant which illustrates how each individual thought they had reached the correct conclusion with the facts that they had determined for themselves from their limited experience and perspective.

> *'And so these men of Indostan, disputed loud and long,*
> *each in his own opinion, exceeding stiff and strong,*
> *Though each was partly in the right, and all were in the wrong!*
>
> *So, oft in theologic wars, the disputants, I ween,*
> *tread on in utter ignorance, of what each other mean,*
> *and prate about the elephant, not one of them has seen!' (John Godfrey Saxe)*

It demonstrates when learners are left to learn on their own without any guidance they can learn incorrectly. They can choose to finish studying before they have mastered the content but they also may stop learning because they lack the motivation to continue. Most informal learning that takes place is messy and fragmented and occurs in complex environments. It can be difficult to deal with this complexity in a formal learning event and provides the reason that models, such as 70:20:10 have been developed, to provide learners with different options to achieve the learning outcomes that they require, but with a degree of structure to ensure they are not entirely misdirected.

Studies completed by Eraut (2004) are of particular interest to this thesis because they were conducted with health professionals, technicians and managers which has relevance to the teaching profession. Eraut (2004) states that a great deal of informal learning has been observed to have taken place in or near formal education settings, but there is still limited research on the actual outcomes of informal learning. Eraut undertook a number of funded research projects focusing on the workplace learning of professionals, in particular the nursing profession, technicians and managers. Some of the studies focussed on learning during their first years of employment, with some concentrating on mid-career learning. There was a combination of learning from other people and learning from personal experience but often both together. By thinking about why a particular situation has occurred and looking at possible

solutions the concept of ‘conjectural anticipation’ as introduced by Dewey (1933) was evident in the studies that were completed and in the conclusions that were reached. The research was compiled through a series of interviews looking at how people learned to do what they were doing. Difficulties can arise with the use of this type of methodology Eraut is aware of these factors and further discusses the problems posed when looking at informal learning, acknowledging them within his methodology. Such factors are considered when determining my own methodology for this thesis and discussed in the following chapter.

Eraut, defines informal learning as ‘learning that comes closer to the informal end than the formal end of a continuum’ (Eraut 2004 P.252) and has created a typology of informal learning to demonstrate this concept.

Figure 2 Eraut’s Typology of informal learning

Time of focus	Implicit learning	Reactive learning	Deliberative learning
Past episodes	Implicit linkage of past memories with current experience	Brief near-spontaneous *reflection* on past episodes, events, incidents, experiences	*Discussion* and *review* of past actions, communications, events, experiences
Current experience	A selection from experience enters episodic memory	*Noting* facts, ideas, opinion, impressions; *asking* questions, *observing* effects of actions	*Engagement* in decision making, problem solving, planned informal learning
Future behaviour	Unconscious expectations	*Recognition* of possible future learning opportunities	*Planning* learning opportunities, rehearsing for future events

Source: Eraut, M (2004) *Informal learning in the workplace*, Studies in Continuing Education, Vol 26, No 2

His typology incorporates the different aspects of learning he considers to be most associated with informal learning and places an emphasis on different areas of focus which can affect the type of learning taking place. The typology demonstrates that many of the activities considered to be informal learning are a normal part of working life and are rarely regarded as learning activities, although he argues that important learning often occurs. He identifies four main learning types of work activity that regularly gives rise to learning – participation in group activities, working alongside others, tackling challenging tasks and working with clients. These four processes will be considered when analysing data in this research thesis.

The studies from Eraut place a greater emphasis on the use of reflection in the informal learning process, but also draw parallels with other workplace studies (Dale and Bell, 1999) outlining the same factors that influence learning in the workplace. All of the studies emphasise informal learning as being more effective if there is support and collaboration. This can be considered in tandem with learning from experience because reflection can enhance the process and helps to ensure that learning takes place. Eraut considers experiential learning to be important and something that professionals would be 'lost without', however he sees a need for more critical control. In line with research such as Marsick and Watkins (1990) he argues that it requires:

> *'considerable self-awareness a strong disposition to monitor one's action and cross check by collecting additional evidence in a more systematic manner with greater precaution against bias.' (Eraut, 2004 p.255)*

In addition, giving and receiving feedback is important. The research shows that learners need both short term, task specific feedback and longer term more strategic feedback on general progress. Much of the learning at work occurs through doing things and being proactive in seeking out learning opportunities and argues that this requires confidence, which could be gained through an appropriate support network.

Social collaboration and its place in navigating informal learning

Social collaboration is regularly identified as an integral part of informal learning. It has its basis in concepts, such as Bandura's theory of Social Learning (1977). Bandura argues that people learn through observing others' behaviour, attitudes and

the outcomes of those behaviours. It is also an integral part of the concept of craftsmanship, along with long term knowledge, skills, development and ethical practice (Hyland 2017) providing some direct comparisons as ‘long term knowledge’ is not always apparent in the ‘quick fix’ nature of informal learning. Craftsmanship is something that evolves over time and is ongoing. Marchand (2016) alludes to problem solving being at the heart of craftwork, again an area synonymous with informal learning where learners need to see a purpose behind the learning experience they are embarking on. Aspects that are evident in ‘craft’ are a sense of community and quality and informal learning can create a sense of community through social collaborative learning, but the question of quality can only be answered by considering how informal learning is measured.

> *“To arouse the aspiration of quality and make good on it an organisation has to be well crafted in form” (Sennett 2008, p.242)*

Sennett (2008) discusses how these concepts work in modern organisations, such as Nokia which has created an open information network, to encourage its employees to discuss ideas and Apple as highlighted earlier in this thesis, who are willing to wait until their products are really good before they bring them to the market. These concepts are embedded in the culture of organisations encouraging craftsmanship amongst their employees, giving them the time to develop their product and create quality. ‘Collective craftsmanship’ (Deming 2000) is created by sharp mutual exchanges as much as by shared commitment. Even in a competitive market which thrives on individual competition it is the organisations that enable co-operation that achieve high quality results. A clear example is the Linux community, a group of programmers who work together to solve problems that affect their wider community. The Linux code is available to anyone, but its development is as a result of individuals who voluntarily spend time to improve the code and address the issues that users identify, consequently the Linux community focus on achieving quality and on doing good work (Sennett, 2008).

Although support and collaboration can be informal and at an individual level a more formal solution at an organisational level can be even more effective. Where learning organisations (Senge 1990) are created which nurture a culture of learning and development there is greater evidence of informal learning. The learning

organisation as defined by Senge (1990) is a group of people working together collectively to enhance their capacities to create results they really care about.

> *'organisations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together' (Senge, P, 1990 p.3)*

Senge (1990) advocated that people all have the capacity to learn, but the structures in which they function often don't provide them with the opportunity to reflect and engage. Consequently people may lack the tools to make sense of the situations they face and may require help to guide them to the appropriate solutions. The concept of a learning organisation is based on a set of disciplines, namely systems thinking, personal mastery, mental models, building shared vision and team learning. These five disciplines should all be present to allow us to see the whole rather than concentrating on individual parts. The core of the learning organisation is systems thinking integrating the other disciplines and bringing them together as a theory. There is a need to understand the systems that are in place, allowing the organisation to relate to the long term view rather than short term solutions, by understanding how systems connect. The five disciplines can be approached at one of three levels; practices, principles and essences. It is argued that each discipline is necessary to the others if an organisation is to learn. Personal mastery states that organisations learn only through individuals who learn so there needs to be a certain amount of motivation for learning amongst individuals, which resonates with the principles of informal learning. People with a high level of personal mastery live in a continual learning mode and never 'arrive' because they are always striving for further development. The learning organisation is influenced by Schon (1983) encouraging individuals to reflect 'in' and 'on' action fostering openness amongst one another, a concept pursued by Price (2014). Having a shared vision can encourage experimentation and innovation, leading people to excel and learn, not because they are told to but because they want to. Team learning is the final discipline which involves people acting together and allowing them to grow more rapidly when they learn together, a key component of social learning as advocated by Bandura (1977). Senge (1990) also suggested that learning organisations require a new view of leadership. In a learning organisation leaders should be seen as designers, stewards

and teachers, responsible for building organisations where people continually expand their capabilities, an aspect that will be considered later in this chapter.

There needs to be an established network for learners to access and use to develop their knowledge and understanding. Cross (2007) cites IBM as such an institution where Blue Pages has been created to provide employees with an online directory of their colleagues' knowledge and skills. Matthews (2013) suggests that leaders need to become learners themselves, but they also need to ensure that appropriate support is given to learners within their organisation and identified five key moments of need when this should occur. These include when the learner does something, or applies their learning for the first time, during a process of change and when things go wrong. The availability of support needs to be clear to the learner so that they are able to access it when the time is appropriate. Learning organisations should also be more receptive to the concepts introduced by Price (2014) who argues that if we are going to make the most of the 'open' theory sharing and collaboration need to be developed at an organisational level. If organisations are more open it can lead to shared information, resources and systems and in turn this will allow systems, processes and resources to be free, creating a level of freedom which encourages informal learning. Possibly the more difficult concept involved in Price's 'open' theory is trust as it advocates that teachers have to trust their students and give them more freedom and responsibility if they are to exceed their expectations, allowing the creation of a learning organisation that provides the support needed for the development of informal learning. Eraut (2004) suggests some further aspects to consider on an individual level when introducing workplace learning, which can also affect its value and impact. The effectiveness of workplace learning will depend on the capabilities the learner has, including personal attributes, skills, knowledge, experience and understanding; their performance at work and how they are perceived, the formal and informal learning that takes place; and finally the context in which the individual is working and learning. All these factors can affect each other as individuals are influenced by their work setting and the relationships they have with others.

This is demonstrated by research undertaken by Unwin and Fuller (2003) on workplace learning, conducted in 12 areas of work in the UK. They argued that in the workplace people develop and share skills and knowledge by finding new ways to solve problems and decisions stating that 'we learn something new everyday' (Unwin et al 2007, p.13). Their research created the concepts of 'expansive and restrictive' workplaces which affect the workplace learning. Expansive workplaces have learning environments where employees experience diverse forms of participation and as a result are more likely to foster learning at work. In contrast restrictive workplaces provide little access to training and career development and consist of more limited work roles. They suggest workplaces exist on a continuum in terms of the way they create conditions for learning, for example, where engineering apprentices were given opportunities to participate in a broad range of activities, including the acquisition of theoretical concepts, both on and off the job, they were in a stronger position to progress in comparison to those who only received 'on the job learning' experiences. Workplaces are more likely to be restrictive if they are top heavy because those who are lower down in the organisation are likely to have less autonomy over their own destiny. In the more expansive environments employees are afforded the discretion to make judgements and decisions based on their experience and expertise, providing them with greater opportunities for learning. However, responses to opportunities were shaped, at least to some degree, by their personal backgrounds, prior educational experiences, and aspirations which were referred to as their 'learning territory' (Unwin et al, 2007), introducing a similar argument to Eraut (2004) who highlighted the importance of the individual in the process. Determining to what extent the organisation that is the site for this thesis is expansive or restrictive may influence the final outcome of the research, as a large part of teachers' professional development is conducted in the workplace. Coffield (2012) highlights Unwin and Fuller's suggestion that educational institutions do not see themselves as workplaces, not necessarily a viewpoint held by the educational institutions themselves, but despite this he suggests that managers within these institutions should concentrate more on supporting the learning of their employees rather than meeting targets which would suggest a restrictive rather than an expansive approach.

What makes informal learning valuable?

Informal learning is influenced by what is important to the learner and is therefore subjective in nature. Although formal learning can be influenced by the deliverer there is a greater objectivity associated with formal learning because a core curriculum has been predetermined and has to be followed to ensure successful completion.

> *'Informal learning is never neutral. It is never independent of sociality and, as such learning will be influenced by a person's social positioning at work or indeed anywhere. Social positioning will influence access to and experience of learning opportunities.' (Garrick, 1998 p.17)*

Value can be subjective and the value of something is often reliant on its usefulness or relevance to the parties involved in the discussion. Eraut (2004) explains that people are engaged in learning in different ways and in different contexts but they do not recognise this learning without being prompted to reflect on particular types of experience or specific changes in their capabilities. As a result it is difficult to measure when the learning that is attributed to changes in performance have taken place. This can make attributions of learning to particular experiences unreliable and the influence of prior learning can be unconscious. Measuring the value of an entity, particularly professional development has not always been easy. This has been compounded more recently by the search for impact that has grown out of evaluation theory and the concepts of return on investment and return on expectations that are now seeping into official documentation. When evaluating teaching programmes and the completion of professional development learners are asked to comment on the impact of their experiences. When a teacher requests funding for professional development they have to include a statement around the impact of the professional development on their learners. The value of informal learning on the professional development of teachers could be dependent on whether you favour professional development or professional learning.

> *'Both are intentional, ongoing, systematic processes. Over time, however, the term 'professional development' has taken on connotations of delivery of some kind of information …. In order to influence their practice whereas 'professional learning' implies an internal process in which individuals create professional knowledge through interaction with this information in a way that challenges previous assumptions and creates new meanings.' (Stoll and Earl, 2011 p.4)*

The definition of professional learning is more synonymous with the concept of informal learning as learners have greater autonomy over the knowledge they choose to apply and the aspects of the knowledge they subsequently develop. Lipowski et al (2011) identify two forms of professional learning, one of which they refer to as ‘continuous experiential learning’. This concept relates to the more informal learning opportunities that contribute to everyday professional practice. The emphasis of teacher training is beginning to shift to a more workplace based model dominated by the work of Lave and Wenger (1991) and their communities of practice. Communities of practice are made up of individuals who mutually engage in an activity and develop communal resources over time and is often cited as an informal learning method as there is no pre-determined structure or curriculum.

Whether you consider teaching to be a science, art or craft may also determine the importance of informal learning in the professional development of teachers. There are similarities between informal learning and the development of craftsmanship in relation to the community aspect. Art requires creativity and this is an aspect that it is argued teachers should be developing both for themselves and for their learners and this is possible through informal learning methods. In contrast the scientific aspect of this debate would suggest a more positivist view, which is definitely being followed by many Further Education colleges in their mandatory CPD events where process and functions are the main theme, such as timetabling, how to use management information systems data and target setting. Following deregulation CPD opportunities have often been used to provide whole college training and development in line with implementing new policy or Ofsted requirements, (Pleasance, 2016) limiting the time that teachers have to access their own professional development through informal or formal learning.

Roberts and Kidd (2017) argue that ‘helping children to make mistakes and learn from them whilst embracing unpredictability, dilemma and uncertainty are a critical part of creating adventurous classrooms’ but in order to achieve this teachers also need to be prepared to take risks and make mistakes, which is at odds with our present system of professional development and the formal inputs our teachers receive. The use of social media has encouraged teachers to explore new ideas and

work with one another to look at alternative ways of learning informally outside their own organisations. McGill (2017) claims that teachers are no longer working alone and can share ideas and meet together, critiquing each other's work without repercussions and this is the way that teachers can develop their professional practice. The emergence of technology and online forums has led to greater opportunities for this to occur, but the lack of intervention from professional bodies, whilst hailed as a positive move by those participating in the regular exchange of ideas can also mean that the information being exchanged is unchecked and not necessarily accurate.

In comparison with the UK the Finnish Government has invested heavily in the training and development of teachers and as a result teaching is a high status, secure profession. Finland has consistently high standards of achievement on all international measures and many educational specialists visit Finland to understand their education system and the reasons why it is succeeding where many others are failing (Robinson, 2015). This success demonstrates that taking time to invest in looking at ways of making professional development for teachers more useful would enhance the overall learning experience for learners. Hargreaves and Fullan (2012) argue that although initial teacher training is essential once in the profession effective practitioners need opportunities for professional development to refresh their own creative practices to keep pace with related development, policy, practice and research more generally.

Informal learning in the changing landscape of education

A central question for this thesis is what is the value and impact of informal learning on the professional development of teachers. It is therefore important to consider the relevance of informal learning in both present and future educational contexts and the workplace. Over the last decade there has been much discussion around the Education system and whether it is still fit for purpose. More recent changes have tended to revert to previous systems rather than embrace the changes that the 21st Century brings. Coffield and Williamson (2011) continue the transport analogy, introduced by Cross at the beginning of the literature review, when discussing the present education system:

> *'Our educational 'system' is like an old-fashioned juggernaut struggling to travel ever faster on modern, over-crowded superhighways. Politicians and policy makers continue to make marginal adjustments by tightening the screws and by insisting on ever more rigorous MOT tests, but their efforts only highlight the absurdity of vehicles invented in the early twentieth century struggling to cope on twenty-first-century motorways.' (Coffield and Williamson, 2011 p.1)*

They argue that educational systems are based on a diagnosis of the time in which they exist, which takes into account the present and future problems faced by society. Everything we do is related to what is happening at the time, it could be argued that consideration should be given to the problems that will need to be faced in the future. Therefore, educators should plan a curriculum along with teaching and learning strategies that will help people to overcome these obstacles. However they also argue that the current system is not facing up to issues that are being presented and consequently the present education system is not fit for purpose.

Coffield and Williamson (2012) believe that two things need to change to improve the prospects of developing a framework of learning in the UK which will make it fit to face the challenges of the future. There needs to be a new diagnosis of our time as things have changed, but in addition educators and learners need to be challenged to help others learn and to think creatively and critically. Although the future cannot be known we need to look at the possible shapes so we can prepare our learners. Schools, colleges and universities have become exam factories, teaching to tests and learning techniques to pass exams not creating and nurturing learners with a love of their subject. Educators should be introducing collaborative learning by opening up dialogue with learners through communities of discovery where learners, educators and managers can release their social and creative resources. Coffield and Williamson (2012) return to their transport analogy as they describe the relationship between the student and learner in terms of riding a tandem:

> *'For the bike to move as fast as it can, both cyclists need to co-ordinate their efforts, especially at the start, to ensure they are 'in sync' with one another. The aim of the tutor, which is made clear to the student right from their first meeting, is that as soon as possible the student should become the lead cyclist at the front.' (Coffield and Williamson, 2012 p.54)*

Robinson (2015) argues that 21st century skills have always been important, but they are even more so now. He states that industrialised education is no longer

appropriate and that we should be working towards an organic education which would lead to creativity and innovation, skills he argues are needed to survive in the 21st century. In addition the fact that we all learn in different ways should be something that we take into account. Learning should come in a variety of shapes and sizes and we should develop learners in a way that best suits the way they learn and takes account of what interests them most, allowing them to develop further. Education is presently dominated by the idea of academic ability, concentrating on intelligence and academic success for educational achievement, but this is something that should change. The performance of academic tests predicts future success in life is at odds with the changes that are taking place as a result of technological advances. Price (2013) suggests that our current system is creating students who can do 'routine cognitive' tasks that robots could actually do far better than humans.

Informal learning in the changing landscape of the workplace

In 2013 The Future of Employment reported on the jobs most susceptible to automation ranking them in order. Those least susceptible had a human element and Beard (2018) concluded that if we want to stay ahead we need to be creative and invest in the most human aspects of education and support learners with the skills and attitudes to learn for themselves. We should coach them on how to learn both individually and together. We need to focus on the future and remove competition from education developing the concepts of co-operation and social cohesion. Beard (2018) suggests that the next revolution we will see will be a learning revolution, harnessing the information that we know about the brain and intelligently using the technological tools we have at our disposal. This revolution will demand a change in the way we learn and consequently the way we educate our learners. Technology is just a tool and it will be most effective in the learning process when we put it to human purposes. 'Human plus machine plus better process wins' (Beard, 2018 p.306). 'The Future of work is human: where machine intelligence ends and human creativity begins was the key note speech at the CIPD Festival of work in July 2019 with Kasparov, who made his name as one of the greatest chess players of all time when he played against IBM's chess playing computer in 1997. He talked about how humans can best partner with machines demonstrating how these ideas are gaining

momentum in the workplace. Technological advances can be used to rethink what we value and change our education systems for the learning revolution. Learning should be an ongoing process, learners should be encouraged to think critically and get creative, prioritise emotional wellbeing, support co-operation, put teachers back in charge and use technology wisely.

Neuroscience shows we have two distinct brain activities involved in the creative process. Convergent thinking is the focussed process of thought requiring lots of controlled attention, the part Beard (2018) describes as the 'craft and graft'. Divergent thinking occurs when we are more relaxed and leads to discoveries, such as, Archimedes' Principle which occurred due to a moment of creativity whilst relaxing in the bath. Neuroscientists advocate that you can only achieve this type of inspiration when you are not focused. Our creative capacity is dependent on breadth rather than depth of knowledge. Creativity is one of the skills that is earmarked as necessary for the 21st Century, but at present our education system is more biased to convergent thinking, which concentrates on obtaining an in depth knowledge of subjects. In contrast Einstein, although well versed in his subject felt it was when he was less focussed and let his mind wander that he had his greatest inspiration concluding that imagination is more important than knowledge. Even in Bloom's (1955) original research into mastery there was evidence that prior to mastery of their chosen discipline there was a time of discovery and experimentation. Informal learning allows for this opportunity or discovery and could be the way to combine creativity as well as social collaboration and the more-rounded individuals that are required for thriving in the 21st Century. Scientific research shows we have a far greater capacity to learn than is realised and traditional methods of schooling should give way to those that grow creativity and purpose. Systems should be built around shared values rather than new technologies because 'adding 21st Century technologies to 20th century learning practices will just dilute the effectiveness of teaching' (OECD, 2015).

Price (2013) argues it is time to alter the emphasis and consider the long term aims of education and what we should be developing for our learners to make them more effective when they enter the world of work. Biesta (2009) highlights the phenomenon of 'learnification' whereby education has been reduced to a narrow and

constraining set of learning priorities. However learning is actually a social activity, which needs to take account of the prior experience and learning of students to ensure that they are actively engaged in the process and this is something that might have a greater emphasis in the future as Price (2013) believes that there will be less need for qualifications as companies use Big Data rather than student grades to select employees. Importance will be placed on what you know and what you can do rather than the existence of a qualification. Applicants will be required to provide portfolios of experience and details of their networks or LinkedIn recommendations. The ability to recall and regurgitate in a timed exam will disappear and learners will be required to acquire skills and a learning disposition instead, requiring educational establishments to rethink the way they teach their learners. Holt (2017) suggests that teacher will need to be trusted to use their professional expertise if alternative teaching and assessment strategies are introduced, a deviation from what takes place in many educational establishments at present.

Renavigating the route to traverse the landscape

Although outside the scope of this research project, personalisation is now something we take for granted. Personalisation allows for different teaching methods for different students. It means that there can be flexibility in the curriculum, it can provide opportunities to deliver common information to all learners but also opportunities to pursue individual interests and strengths. Informal learning can allow for personalisation and encourage the learner to identify their natural aptitudes and is an aspect that could be considered as part of professional development, particularly with the advancements in technology that are taking place. Creating a flexible infrastructure continues to be considered, the work of Professor Sugata Mitra investigates the potential of self-organised learning communities and a question based curriculum (Beard, 2018) as his project demonstrated that children can teach themselves how to acquire knowledge with adult encouragement and supervision. His initial ideas, although treated with scepticism by many, due to the nature of the research undertaken was the pre-cursor for the Khan Academy that developed these concepts and created an on-line library of tutorials allowing learners, with access to technology, the tools to teach themselves. This active learning is synonymous with Dewey's work on reflective practice, but could be argued that it does not allow for the

depth of learning that is potentially required. Rose (2015) advocates individualised learning where qualifications would be broken into credentials, grades would be replaced with competency-based judgements and learners would be more self-directed in their learning (Beard, 2018). In such a system the teacher's role would be to integrate informal and formal learning, becoming more of a collaborator and coach (Knight, 2017), similar to the ideas introduced by the CIPD (2018) in relation to the changing role of learning and development practitioners from trainers to curators. This would require a different skill set, which present professional development opportunities do not address. Encouraging teachers to undertake their own learning in this way could give them a better understanding of how to deliver this format to their own learners.

If we can see the importance of creating personalised experiences for our learners, our teachers should also be given this opportunity, not only for their own professional development, but to ensure they will have the skills and knowledge to develop these ideas in the future.

> *'CPD is a responsibility for all professionals but it is also a right. If "personalised" learning is the new government aim for all students, then it should apply equally to staff, who have their own learning needs, gaps and aspirations'. (Coffield 2008 p.24)*

Claxton (2017) even considers what the curriculum for a future world would look like and includes learning with others and absorbing through doing. He highlights that there are a number of schools around the world who have developed effective cultures of learning that enable learners to get the best grades they are capable of achieving as well as grow in confidence and provide them with the skills to be able to develop their own learning. He describes a good curriculum as emphasising 'the inter-relatedness of concepts, big ideas, critical thinking and learning that is personalised to respond to the differences in individuals.' (Claxton, 2017 p.55)

> *'Learning is based on enquiry, project and problem based learning, using research skills and scientific methods. Flexibility of learning environments is encouraged, including involvement with the community and experience of the world of work.' (Claxton, 2017 p.55)*

These ideas and changes in thinking are gaining momentum and there are already projects throughout the country introducing alternative teaching strategies to address the issues raised, such as Everton Free School and Store Van Music (Robinson,

2016). Although these projects are predominantly in the school sector, this need for change is being driven by The Big Education Conversation (http://www.educationforward.co.uk/the-big-education-conversation) whose authors advocate the importance of innovation in the present education system. If these changes come to fruition these learners will be entering Further Education in the next decade and may be expecting their lecturers and the educational institutions they attend to facilitate their learning in a similar way. Even if this does not occur they will be entering the workplace which is also experiencing a learning revolution, as organisations are being encouraged to think about making learning an integral part of their business and developing creativity and innovation amongst their employees. One of the key drivers for informal learning is the rate of change in society and Matthews (2013) argues training should be better integrated into the workspace and made more relevant to real-life needs. In Price's 'Open' concept (2013) he demonstrates how the future of teaching and learning is changing. Consequently he argues the importance of informal learning will grow, possibly removing any need for formality in the learning process.

> *'Key related developments in technology, psychology and neuroscience, as well as more general changes in society, mean that we are imminently facing what the World Economic Forum has called 'The Fourth Industrial Revolution'' (Helmer, 2018 p.20)*

Price (2013) argues the acquisition and application of knowledge to remain economically competitive is the whole point of the learning revolution. However, consideration has not been given to the idea that the social value of knowledge is far greater than its economic value. The knowledge economy was to be the future, but the introduction of the internet has hugely affected the net worth of knowledge (Price 2013). This has subsequently affected the workplace and the traditional definition of a job. Gee and Schaffer (2005) introduce the concepts of commodity and innovation jobs. Commodity jobs are those which are 'standardised, replicable and sold at a reasonable price', whilst innovation jobs require 'specialised, unique skills'. It is relatively easy to train people to complete commodity jobs, but innovation jobs are harder to outsource. Gee and Schaffer argue that the US education system, is still preparing their learners for commodity jobs, a phenomenon that is comparable to what is taking place in the UK education system. However, the future workplace will

require us to have portfolio careers whereby job applications are no longer made but bids are made for contracts;

> *'Whether it's Apple outsourcing technical and manufacturing jobs to China, or hundreds of thousands of small western enterprises managing contractors in India, those new employment structures are shaking up the knowledge economy.' (Price, 2013 p.16)*

The future of work is definitely changing and the way knowledge is acquired is no exception. Today's workers are knowledge workers who expect the freedom to connect the dots for themselves. Knowledge workers have instant access to the internet and the curriculum they follow no longer stands still, particularly in the world of work. In addition, learning no longer comfortably fits within fixed parameters, which makes it even harder to formalise. Personal issues, such as, mental health, physical fitness, emotional balance, outlook on life, authenticity and social skills are vital to effective informal learning. Cross (2007) states knowledge workers baulk at being told how to do their work which is why they favour informal learning because it trusts the worker with the decision of how to master new knowledge and skills. Ongoing research at Carnegie Mellen University has shown that the amount of information knowledge workers believe they need to have in their heads to do their job properly is declining rapidly. In 1986 the figure stood at 75% and in 2006 it was just 10% (Matthews, 2013). This has a significant effect on the type of learning we should be engaging in and the skills we require to learn effectively. Matthews suggests the challenge is how to be more effective when they are learning informally, by giving people the tools they need and the skills to use those tools to manage their own learning requirements in the moment.

Navigating the landscape alone

As part of this revolution and due to a generational change employees in the workplace now want to be self-directed learners and find out information for themselves. As previously highlighted, Lindemann (1926) was a firm advocate of informal learning and as such he believed in using learners' experience as a starting point for education. Knowles continued this theme and developed Lindemann's concept of androgogy creating six key assumptions which characterised the adult learner (Knowles and Associates, 1984). These concepts are still apt for the new

generation of learners who have experience of the workplace but also possess a predisposition for learning and development. Millennials expect a self-directed learning environment as part of their working lives and careers (Helmer, 2018). Self-directed learning is driven by individual need based on the learning that the learners think they need rather than learning that the organisation thinks they need. There is a strong sense of community amongst the learners with 80% willing to share what they know from their peers (Helmer, 2018). The self-directed learner is now seen as an important part of the organisational learning and development landscape. Due to advances in technology learners are taking greater control of their learning and it is believed that organisations will need to embrace self-directed learners in order to remain competitive (Helmer, 2018). One response to this is the concept of 'learnability', hiring only those who can demonstrate that they are learners, so employability becomes all about an individual's ability to learn. In such a situation learning will become critical to the business and individuals who want to learn will be rewarded accordingly, as demonstrated by the recently updated Profession Map for HR professionals (CIPD, 2019), which introduces a 'passion for learning' as one of the core behaviours. However, for this to be a possibility organisations will need to allow employees to make mistakes as that is part of the learning process.

Recognising the world of informal learning

Teachers are encouraged to embrace informal learning by harnessing the opportunities that are presented to them, because it is considered to be what keeps people mentally active and interested in the world around them. It is also believed that informal learning enthuses teachers about their work and enhances the learning experience for the worker (Coffield, 2000). Despite this desire for more responsibility in the learning process research shows that learners still require some formality in relation to acknowledgement of the informal learning that has taken place, recognising the time and commitment that has been given to it (Open University, 2016). This appears to particularly be the case for teachers in the Further Education sector who are currently under immense pressure due to increased workloads and limited budgets and would see recognition as a reward for the time and effort that has been spent, as recognition is usually considered to be an appreciation or acclaim for an achievement. Pleasance (2016) feels that morale of staff will decline

as their workloads intensify even further. It is possible that accrediting learning staff have completed could be one possible answer. Despite work pressures learners will, however, invest time to advance their careers and formal certification is a great motivator for learning (Overton 2016). Recognition is rated in the top three success factors for one in four learners and could be achieved through certification or formal qualification (Overton 2017). Research completed by the Open University (2016) supports these claims by stating that accrediting informal learning drives user engagement and motivation as recognition and reward is gained through sharing the success with others. Dale and Bell (1999) agree that to maximise and apply learning acquired informally it needs to be recognised and valued. It should be argued that these viewpoints could be due to the vested interest that these organisations have in the accreditation process.

> *'In education and training policy, qualifications have become the key measuring instrument not only of learners' achievement but also of the effectiveness of professionals and the performance of institutions.' (Davies, 2000 p.54)*

This has led to the belief that qualifications are the only way to measure success, particularly as nearly 20 years later they continue to be a key performance indicator, possibly due to the claim made by the Department of Education and Employment in 1999 who stated that 'qualifications are a measure of success for both individuals and providers'. (DfEE, 1999. Para 5:22). However it could also be due to the assumption that it is often a fundamental part of what is considered to be a good education. Accreditation can be a complex issue as a study completed by the DfEE (2000) established:

> *'On the one hand, some people feel intimidated by the prospect of earning certificates. On the other hand, some types of learner have expectations of a real 'return' for their effort, in terms of improved career prospects, for example, which should be properly accredited.' (DfEE, 2000 p.61)*

The concept of what makes a good education has been discussed and argued by many. Biesta (2011) categorises education into three domains which he suggests are all interrelated and therefore are all important areas for a teacher to consider. The domains are 'qualification', 'socialisation' and the impact education can have on a person's qualities, which he refers to as 'subjectification'. Subsequently one important function of education lies in the domain of qualification. This can include becoming qualified to do a specific task or qualification in the sense of leading the

recipients to live a successful and meaningful life. In the context of this literature review it could be argued that the domain of qualification is the only dimension in which education functions which is why the recognition of a formal qualification is still important. However if value and impact is being considered socialisation and subjectification will also have a bearing, because it will depend on the value of the individual or organisation who is conducting the measurement. This demonstrates the conflict that can occur between the different domains and mirrors the tension that exists when discussing the formalising of informal learning through formal recognition.

In 2000 The Learning Society Programme, which consisted of 14 projects throughout the UK, aimed to examine the nature of a learning society. One of the projects considered the impact of credit-based systems of learning on learning cultures. As part of the research which centred on the work of the London Open College Network (LOCN) and the National Open College Network (NOCN), questions were raised about the formalisation of informal learning. This aspect is important when considering the measurement of the impact of informal learning, because if qualifications are a measure of success it would follow that informal learning should become part of a qualification. However, this would negate the whole concept of informal learning which revolves around the premise that the learner is in control, and finds the information as they need it, rather than working towards a set of objectives set by somebody else (Matthews, 2013). It would follow that the introduction of assessment would undermine the informal learning taking place and diminish its value, and although some tutors feared accreditation would threaten the informality of their practice, this particular study found no evidence to support this. The continued existence of the informal characteristics of the learners' experience was largely dependent on the ability and readiness of the tutors to find ways to include it within the accreditation framework. In fact, the learners valued certification 'having a piece of paper to show you've done it.' (Davies, 2000 p.58) It was felt that the assessment gave activities additional valued significance. However, in general the OCN credit-based system was more successful in formalising learning where there was a common goal between the organisation and the tutors. It had less impact where the professionals and the organisations had quite different objectives, a recurring theme in this literature review. As part of the Learning Society

Programme (2000) work was undertaken with voluntary organisations and it was found that certification offered a useful tool to promote the learning and publicly recognise the contribution made by the individuals and the skills that were developed, suggesting individuals still want some form of recognition for the learning they have undertaken. Helmer (2018) identified that recognition remains a motivator for self-directed learners, who want the learning they have completed to be acknowledged by their employer.

> *'But if we only teach those things that we can measure are we in danger of only valuing that which we can assess?' (Rees, 2017 p.124)*

Rees discussed the present education system in schools and argued that the success indicators for schools have been reduced to a few things that can be measured. Measuring problem solving skills, their ability to work in groups and their empathy to sensitively respond to the needs of others are all skills that he considers are needed by employers and society, but they are not easy to assess. These ideas are being mirrored in the workplace.

> *'Some of the world's biggest corporations, including Google, Ernst and Young, apple, Costco, IBM are no longer interested in whether the applicant has a degree, arguing that is not what you know that matters, but what you can do with what you know.' (Price, 2017 p.93)*

Consequently companies will be looking at portfolios, networks and Linkedin recommendations for their suitability to undertake a role. This may not have reached the world of education yet but recording of informal learning through a portfolio is a real possibility, demonstrated by the QTLS (Qualified teaching learning and skills) and ATS (Advanced teacher status) process encouraged by the Society for Education and Training. Despite this there still remains a prevailing view that intelligence is important and that qualifications are vital for good jobs (Gregson and Hillier, 2015). However, measurement could be considered in relation to the idea of 'learning trajectories' which were introduced during Eraut's (2004) research. Learning trajectories measure what counts as progress in a person's performance, the progress could be related to aspects of the role that have been done 'better', aspects that are done 'differently' or related to 'doing different things'. They may happen individually or all at once and could be measured through a reporting procedure considering aspects, such as doing things faster; improving the quality of the process; or helping others to learn to do the task. Alternatively consideration

could be given to using the Dreyfus Model of Progression (1986) which places a greater emphasis on learning from experience through the acquisition of tacit knowledge and informal learning and relates to a series of levels of competence ranging from Novice through to Expert. However, as Eraut (2004) argues many of the aspects of Dreyfus' Model are now outdated as there is little emphasis on problem solving, sharing of knowledge and working collaboratively all of which are aspects that are significant parts of informal learning. Eraut (2005) subsequently developed his concept of learning trajectories and created a typology taking into account continuity of learning and changes in learning priorities. The typology introduced a variety of skills, such as, awareness and understanding; personal development; working with others; decision making and problem solving; and judgement, which were then broken down further to provide specific aspects which could be measured over time. The learning trajectories, although originally designed to be used in conjunction with a qualification could allow for an individual to demonstrate their progress over time and measure their ability to learn from experience. Measuring progress in relation to improvements in performance can have its downfalls as research completed by the DfEE (2000) outlines, commenting that measuring outcomes of informal learning on the basis of economic rates of return will inevitably realise poor rates of return. This can have a detrimental effect on informal learning's overall value and impact as it is acknowledged that 'investment' in any form of learning is generally based on rates of return. The DfEE argue that it should be evaluated taking into consideration its multi-dimensionality and contextualisation and a criteria-based approach should be adopted with some use of normative assessment, though how this can be achieved is difficult to establish as:

> *'Informal learning typically originates within a space that provides ample scope for developing along a number of possible trajectories. It can be seen therefore as an evolutionary process, in which the learning that happens in response to this initial need triggers other needs.' (Cullen J et al, 2000 p.7)*

Alternatively a system could be used to recognise prior learning, similar to those introduced by a variety of educational organisations which recognises prior learning by evaluating the skills and knowledge acquired outside a formal setting, recognising competence against a set of learning outcomes. This would provide a link with the

idea of craftsmanship and the assessing of skills against pre-determined outcomes set by the master craftsman.

The literature review demonstrates that informal learning exists and is considered to be effective, however it requires motivation and reflection which are not always easy for the individual to achieve, particularly when there is a lack of support from their colleagues or organisation. Informal learning is difficult to measure and its value is subjective. It requires recognition, but it can be difficult to accomplish. There is a place for informal learning in the changing world of both education and the workplace but the complexities of informal learning, as this chapter, demonstrates are many. Determining its value and impact is a potential minefield which will now be explored further in the next chapter which describes the methodology and data collection and also in the subsequent chapter which analyses the data through a series of case studies and discussion.

Chapter 3 Methodology

Determining the itinerary for the projected travel

> *'The question 'which method is best?' is not solely about whether, for example, to use interviews, questionnaires or observations. Underpinning these research tools are more general philosophical questions about how we understand social reality, and what are the most appropriate ways of studying it.' (Blaxter, Hughes and Tight, 2010 p.59)*

At the start of this research, I naively thought that because informal learning is happening all the time it would be relatively easy to measure its value and impact on the professional development of teachers and similarly to identify research methods and start collecting data. It soon became apparent that this would not be the case, as Waring states, 'All researchers need to understand that their research is framed by a series of related assumptions.' (Waring, 2017 p.1)

Researchers need to understand their own position in relation to their research, whether they are undertaking educational research or their research is just educational in nature; what values underpin the decisions they make; their philosophy in relation to the nature of reality; and how they know the reality they believe actually exists. Educational research can be seen as anything 'that seeks to understand, inform or improve the practice of education' (Coe, 2017 p.11). Interactions between teachers, students, content and environment provide the 'instructional dynamic' which is seen to be an important aspect of education. Ball and Forzani (2007) differentiate 'related to education' and 'research in education' by the presence of this 'instructional dynamic'. The methodology for this thesis has an element of all four aspects and the case is made that the work being undertaken here is educational research.

For centuries the prevailing paradigm associated with philosophy was positivism. Developed by the early philosophers, such as Plato, who introduced the quest for certainty arguing that true knowledge can only be acquired if the object of knowledge is not changed, in other words you cannot change or alter what is already there. It means that only that which is fixed, immutable and unchangeable could be real. Consequently it was believed that you cannot have a concept of beauty unless there is absolute beauty somewhere. Plato's theory was developed further by Aristotle who argued that reality is not dependent on universal abstracts but on particular

substances of physical things, which could include experience, maintaining the scientific nature of acquiring new knowledge. Scientific principles have been questioned in later centuries, leading to the birth of interpretivism, which provides an alternative paradigm challenging the traditional assumptions around research methodology. These paradigms represent opposing worldviews with regard to the way in which reality is understood and how the production of knowledge is perceived.

By critically examining the literature it became apparent that the world of informal learning, and the world of research methodology, is not straight forward and needed careful navigation. Informal learning as Hillier (2010) identifies is always taking place and this can be seen in my organisation where teachers are continually developing their practice with limited intervention by the organisation.

> *"… informal learning has a defining characteristic that is always occurring. It may be unplanned, it may be as a result of serendipity. It is prevalent but often unrecognised. People would not be able to use mobile phones, find their way in strange cities or use new foods without learning informally how to do so." (Hillier, 2010 p.31)*

Recognition of something that cannot always be seen to be happening, outside the confines of a formal development structure can be difficult. Without recognition there is often a belief that it is unimportant and consequently to have little impact or value. Finding ways to measure the value or impact of informal learning within the organisation in order to consider it as a viable alternative to the present professional development options is at the heart of this study.

In Chapter 2 the literature demonstrated that in order for informal learning to, not only exist, but also have some value for its recipients certain factors needed to be in place. The importance of experience and reflection were a dominant theme and the initial theories introduced by Dewey (1902) were adopted in the model created by Marsick and Watkins (2001), which in turn influenced the approach taken in the methodology for this thesis.

The contextual factors that they identified as influencing the ability to learn well enough to successfully implement the desired solution, such as time, resources, people from whom to learn from and a willingness and motivation to learn have all been considered when deciding on which research methods to use. Therefore,

critical reflection, proactivity on the part of the learner and creativity are themes found throughout the methodological approach in this study. These concepts are often viewed as at odds with the positivist paradigm and this has led to this thesis being influenced by an interpretivist research methodology.

> *'Research from an interpretive perspective can be thought of as something which is very often carried out by people, in places, creating events from within' (Sharp, 2008 p.5)*

The ontological position that I have taken portrays that reality is in fact multi-dimensional and ever changing and is dependent on different frames of reference. The areas of research as the literature review demonstrates, involves many dimensions, each interrelated and affecting one another. It identifies the importance of the reflective experience and the need for collaboration and support from individuals and the organisation. Importantly the landscape of FE is ever changing and ignoring this aspect would have a detrimental effect on the research not least, because lack of funding and increased workloads has a direct impact on the informal learning that takes place. In an interpretivist research methodology both researcher and research participants are directly involved. Burton, Brundrett and Jones (2008) states that the element of subjectivity and bias is acknowledged and shared and consequently the creation of knowledge is constructed from multiple perspectives.

This thesis predominantly involves practitioner research because the researcher is directly involved in the research process as the person managing the informal opportunities and as a coach and mentor to the research participants. As the Digital Learning for Educators' tutor and Blended Learning Adviser, my role is to provide advice to practitioners on the creation of digital content for their learners as part of the SOLA (Scheduled Online Learning and Assessment) initiative, outlined later in this chapter. Throughout the research there is an awareness of subjectivity due to the relationship between researcher and participants and the researcher's role within the organisation. This subjectivity could lead to possible bias due to the close relationships often created between a tutor and their learners and it is important to acknowledge this within the research. These concepts are further explored during data analysis when consideration is given to the researcher's own personal informal learning journey through completion of the MPhil programme.

As both the researcher and the participants are directly involved in the research, opportunities for both to take an active part in interpreting what is happening is created. As a practitioner researcher it is difficult to separate the research from the historical and cultural aspects that have created the present organisational conditions. Care has to be taken to examine situations through the eyes of participants rather than the researcher only in order to minimise the potential bias that could be present.

> *'The interpretation of part of something depends on interpreting the whole, but interpreting the whole depends on an interpretation of the parts' (Usher, 1996 p.19)*

Usher (1996) goes on to explain this further by relating it to a whole book and its chapters, outlining how your understanding of a book is reliant on your understanding of each of the chapters and how these in turn provide the understanding of the book as a whole. He refers to this concept as the 'hermeneutic circle of interpretation' and it is a concept that dominates practitioner research. This can be seen in the case studies generated by this research, which need to be read in conjunction with the research as a whole.

As the research project is focused on a group of practitioners all working in the same establishment which in turn is subject to a variety of different social practices these need to be understood in order to meaningfully interpret the data. Cohen, Manion and Morrison (2011) argue that the interpretive paradigm is characterised by a concern for the individual. It allows subjectivity in the exploration of the human experience, by ensuring that the emphasis is on getting inside the person and understanding from within. There is a focus on action and consequently it becomes future oriented and any theory that emerges follows the research with investigators working directly with the experiences and understanding they have gained to build any future theory on them.

The reality of FE and the organisation at the heart of the research is multi-layered and complex, not unlike informal learning, and this has a bearing on the way in which the research is undertaken. Due to the myriad of different events taking place it is very difficult to reduce the outcome to a simplistic interpretation which is required by a positivist methodology. In addition situations are fluid and changing rather than

fixed and static and within the interpretive methodology such a viewpoint is acceptable (Cohen, Mannion and Morrison, 2011).

In contrast to the interpretivist paradigm where the researcher is subjective the positivist paradigm advocates that the researcher should be objective and detached from the objects of the research.

> *'Research from a normative perspective can be thought of as something which is very often carried out on people, on places and on events by looking in from the outside.' (Wallace, 2013 p.5)*

In the positivist paradigm hypotheses are derived from theories and are submitted to empirical tests for verification and rejection. Only those phenomena that are observable and measurable can be validly warranted as knowledge (Burton, Brundett and Jones, 2008). Natural phenomena could be explained as theological, metaphysical and positivist (Comte 1844) and the positivist view holds that natural events can only properly be explained by reference to empirically observable concrete phenomena.

> *'A positivist researcher seeks generalisations and 'hard' quantitative, measurable data by means of employing a scientific approach'*
>
> *'In contrast, an interpretive researcher aims to explore perspectives and shared meanings and to develop insights and a deeper understanding of phenomena occurring in the social world by means of collecting predominantly qualitative data. Reality is perceived as a human construct.' (Burton, Brundrett and Jones, 2008 p.60)*

The positivist methodology takes a quantitative approach that uses statistics and experiments and focuses on the measurement of outcomes in order to predict and identify patterns. As the researcher looks for generalisations and measurable data it often takes place under controlled conditions. In the normative perspective advocated by the positivist view the educational world would be entirely independent from the researcher. Its fundamental components, characteristics and the realities that exist within it can be predicted, isolated, measured, testified, quantified and presented objectively (Wallace, 2013). Cohen, Manion and Morrison (2011) see knowledge in this paradigm as hard, objective and tangible and demand that the researchers take an observer's role, which is not possible in practitioner research where the researcher is an integral part of the research they are conducting. Olroyd (1986) suggests social phenomena could be researched in ways similar to natural and physical phenomena, leading to the creation of laws and theories which could

then be investigated empirically. Any knowledge claimed is based on observation and measurement and systematically and methodically carried out. Usher (1996) states that if logical rules of inference and confirmation have been used, then epistemologically this is taken as 'good grounds' for considering the knowledge to be valued. However, this becomes more difficult when studying human behaviour, due to the complexity of the subject matter, making it difficult to define. Its lack of order and regularity makes it harder to measure and empirical measurement of intangible subjects is particularly difficult and mirrors the difficulty of measuring informal learning. The nature of the research being conducted as part of this thesis, with its emphasis on the human experience provides a clear argument for discounting a positivist methodology, as research should not become:

> *'a branch of mathematics rather than a human study seeking to explore and elucidate the gritty circumstances of the human condition.' (Ions, 1977 p.14)*

A positivist methodology provides a restricted image of humans, with the researcher concentrating on the repetitive and predictable aspects of the person to the exclusion of the subject (Hampden-Turner, 1970). Despite Kuhn's (2007) arguments around scientific study and its place in finding new ways of looking at the world through paradigm shifts it still requires the observer to be independent. Habermas (1972) goes so far as to say that positivism is a serious danger to the more open ended, creative, humanitarian aspects of human behaviour. He argues that it fails to take account of our unique ability to interpret our experiences and to represent them to ourselves. Therefore, in this instance the science should not be considered in isolation as there are a multitude of factors at play and because observing human behaviour is an integral part of the research it would suggest that the positivist paradigm is not an appropriate methodology to apply.

Although I would like to believe that this research will change the world I am under no illusions that it will have such a transformative effect, due to the small scale parameters of the project and therefore a critical theory methodology is not appropriate. There is an element of challenge in the research and it is hoped that eventually it will lead to change in the way professional development is designed for teachers, as current models are not always working, but this research is merely the starting point. Referring back to the juggernaut analogy, introduced by Coffield and Williamson (2011) and discussed in the literature review; in relation to the Education

system, this thesis equates to a lone cyclist who needs to make themselves visible to ensure they and the concerns they are raising don't get swept aside. However, change can take place incrementally and each individual can made a difference if collectively they raise issues that are presently affecting the education sector.

Critical theory methodology takes into consideration the political and ideological contexts in which educational research takes place (Cohen, Manion and Morrison, 2011). Although this thesis has been born out of the present funding cuts in FE, the detrimental effect on teachers' workload and their ability to engage in meaningful professional development these aspects merely provide the context in which the research is conducted. The theory is influenced by Habermas (1972) who advocates that the purpose is not merely to understand situations but to change them by emancipating the disempowered to redress the existing inequality. He argues that worthwhile knowledge is determined by the social and positional power of the advocates of that knowledge and that worthwhile knowledge has three elements; prediction and control; understanding and interpretation; and emancipation and freedom (Cohen, Manion and Morrison, 2011). It is these elements that create the transformative agenda, leading to social justice, equity and equality. It is argued that this interpretation of knowledge is simplistic as there are a multitude of different interests and ways of understanding the world and it is therefore artificial to reduce it to three. As the transformative paradigm is not present at every stage of the research process its place cannot be argued for this thesis. Although a learning community created for the purposes of this research has elements of Lave and Wenger's (1991) communities of practice, creating a community allowing participation and consequently learning, the transformative element cannot be strongly argued. Mertens (2007) suggests participatory action research is a necessary, if not sufficient, element of a transformative paradigm as it involves people as equals. The use of reflective practice and action research are involved but there also needs to be an ideology critique. In such a critique the purpose of the research,

> *'is to uncover the vested interests at work which may be occurring either consciously or subliminally revealing to the participants how they may be acting to perpetuate a system which keep them empowered or disempowered.' (Geuss, 1981 cited)*

Using reflective practice to achieve this ideology critique should be achieved by following Habermas' four stage process:

- Stage 1 – A description and interpretation of the existing situation
- Stage 2 – A presentation of the reasons that brought the existing situation to the form that it takes.
- Stage 3 – An agenda for altering the situation
- Stage 4 – An evaluation of the achievement of the situation in practice

(Cohen, Manion and Morrison, 2011 p.34)

These stages as Smyth (1989) concurs encourage the researcher to ask; What am I doing? What does it mean? How did I come to be like this? How might I do things differently? This lends itself to a practical methodology, similar in concept to the interpretivist paradigm which puts the practitioner at the centre of the research. In both methodologies there is an emphasis on action research, but the argument for its involvement in the transformative paradigm is that it is empowering, by giving practitioners a voice, involving them in the decision making and giving them control over their environment and professional lives. Informal learning, by its very nature, hands over control to the learner, but often they are restricted in putting their learning into practice, due to the constraints imposed by the organisation, reducing the overall influence. This is further compounded because individuals rarely have the sort of influence that is required to affect the mandated changes in education that regularly occur. Although it could be argued that the task of the researcher is not to have an agenda, but to be dispassionate, disinterested and objective and you cannot be this if you are influenced by the political intricacies that have inspired the research.

Despite these limitations Usher (1996) argues that it is about taking action to change situations, a concept that is synonymous with a problem solving approach and one of the proposed skills for successful 21st Century ways of working. It could be argued that many of the components of the critical theory methodology are evident in this thesis, but due to the limitations of power that prevail in my position as a lone practitioner researcher the transformative nature can never be fully realised. A position reiterated by critics of the theory who advocate that giving action researchers a small degree of power to research their own situations has little effect

on the real focus of power and decision making, which often lies outside the control of action researchers. These arguments lead to the interpretivist paradigm, despite its limitations, being the most appropriate for this thesis and consideration has been given to those limitations when choosing not only the research methods but also the way in which the data is collected and analysed.

Ethical Considerations

> *'In our role as researchers we have a moral responsibility to ensure that we minimise the risk of causing any harm to individuals, organisations or society.' (Opie and Brown, 2019 p.45)*

Ethical issues are particularly important with qualitative methods of data collection, because of the closer relationships between the researcher and those being researched. As a practitioner researcher immersed in the research and the whole thesis has in effect become a case study of my experience as a practitioner researcher and the relationship this has to my experiences of informal learning. Such close proximity to the research can influence the findings and it is particularly important to be aware of this when making decisions. Awareness of these tensions also needs to be in place to reduce the possibilities of any bias and prejudice that can arise in such circumstances. It is vital to establish that the people in the research know what they are doing and why they are doing it and that they agree voluntarily to take part. Wallace (2013) argues that we do not have the right to use people for our own purposes. They should not be labelled as 'subjects' or 'objects', but as participants who participate through choice. This means that it is important to ensure that they take part willingly, that they are fully aware of the purpose of the research and they are free to say 'no'. Ethics are therefore central to the conduct of educational research, in fact all rational human beings should be treated as an end-in-themselves and never as a means to something else as advocated by the philosopher Immanuel Kant (1724-1804).

Opie and Brown (2019) identify key considerations for ensuring research reflects good ethical practice, namely voluntary informed consent, rights of participants and ensuring the integrity of your research. Considering the relationships between the practitioner researcher and the participants is important for all these considerations,

particularly the last concept where the researcher has a responsibility to ensure integrity in their research and understand the influence that they may have on their research. This is of particular concern in this thesis because of the possible power relationships that exist between the practitioner researcher and the participants. All the participants in this research are work colleagues and in addition to this relationship the practitioner researcher also has links as a teacher educator, the lead in the Outstanding Teaching Learning and Assessment project and the tutor on the qualification the particpants were aspiring to achieve. Power can exist through a variety of sources, legitimate, expert, reward, referent and coercive (Stewart and Rigg, 2011) and where this power exists any data collected may be subject to bias. It is therefore important to consider the power relationships at play to reduce the impact of bias on the data collected:

Table 1: Power relationships between practitioner researcher and participants

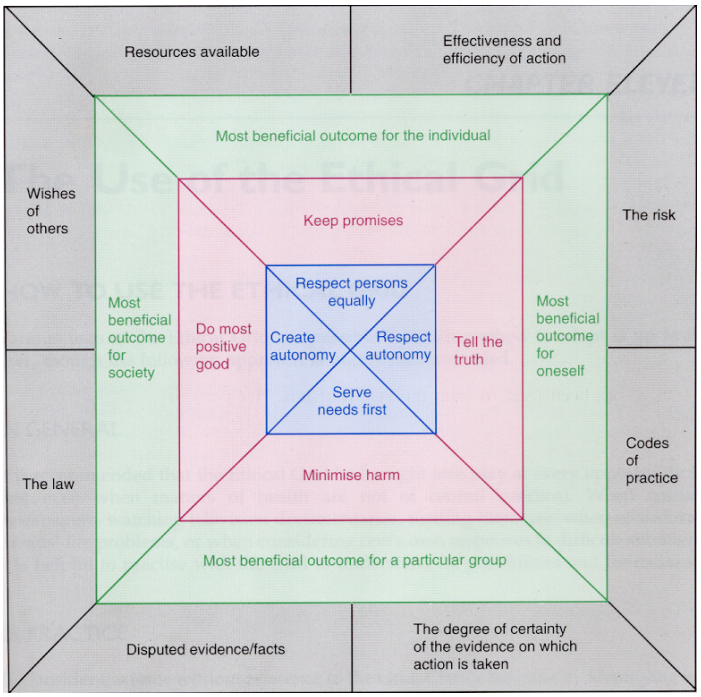
Particpant	**Work colleagues**	**OTLA Project Lead**	**Tutor on ITT**	**Tutor on DLE**
Pascal	✓	✓	✓	✓
Ada	✓	✓	✓	✓
Alice	✓			
Lisa	✓	✓		✓
Ruby	✓			✓

It could be argued that my position as a tutor created a position of power as I was seen as an expert and participants may have agreed with any suggestions or observations I made. It could also be argued that the reward of achieving the qualification could have an effect on the power dynamic, which is why every effort was made to highlight the achievement of the qualification was a secondary factor in

the research and should not influence the informal learning that took place. As a teacher educator some of the participants were previous students and this could also have an influence on the power relationship with them taking part and completing activities because they ‘didn’t want to let me down’, which one of the participants stated when they were interviewed at the end of the project.

Cohen, Manion and Morrison (2011) explain that ethics are situated and therefore need to be interpreted in line with the specific local situation in which the research is conducted. Situational ethics advocates that what we should do or what is right to do depends on the situation in question. The relativist position suggests that there are no absolute guidelines and that ethical considerations will arise from the very nature of the particular research at the time. Ethical decisions are built on ethical principles, but different ethical principles may conflict (Hammersley, 2009) and this needs to be considered. Seedhouse (1998) introduced four levels of decisions, including external; consequential; deontological; and individual, and it is the need to work on all four levels which may give rise to conflict. Seedhouse’ Ethical Grid provides a moral framework and allows for the justification of the ethical decisions made, through the questions that are asked at each level to determine the option that is most relevant. For example, when considering the consequences of the research are you considering an increase in benefit for yourself, another person, a group of people or everyone?

Figure 3. Seedhouse' Ethical Grid.



Source. Stutchbury, K and Fox, A (2009) Ethics in educational research: introducing a methodological tool for effective ethical analysis. *Cambridge Journal of Education* Vol. 39, No. 4, June 2009, pp.489-504

As a practitioner researcher I have carefully considered all the levels and decided that the purpose of my research is to respect people equally, with all participants able to put their views forward and include their findings. My motive for completing the research is to do the most good by telling the truth about the information I discover. The consequence of the research is to benefit a group of people, rather than myself or another individual. Whilst the external considerations I am most bound by are the resources that are available.

The professional development of teachers is an area that needs further discussion and it is important that the issues raised within this research can be discussed with a wider audience. Data collection needs to have been done so ethically with consideration to the participants and the organisation within which they work. Tensions exist in relation to ethics and although it can initially appear quite easy to make appropriate decisions constant questioning helps to ensure decisions are being made for the right reasons. Aspects that are of relevance for this thesis are informed consent, anonymity and confidentiality. Informed consent may not always

be necessary but the greater the risk the more important it is to gain informed consent. It is particularly important if participants are exposed to stress, invasion of privacy, or loss of control over what happens. In a situation of this nature the possible dangers need to be highlighted to the participants before they agree to take part. Consent was obtained at an institutional level before individuals were approached with any formal request for their participation. Informed consent was sought from the participants in this research, respecting the rights of the individuals and their ability to make choices. Informed consent can be open to interpretation. I decided on what I thought was sufficient in relation to the amount of information given to allow participants to make informed decisions. Although my initial discussions were related to the original research design and slight changes have been made as the research has progressed, I have ensured participants remain informed of any alterations, such as the use of the reflective journal entries to demonstrate their professional development. However specific guidance was not provided in order to minimise any influence on the entries participants made. If told particular features were being sought they might have been more conscious of actually including this information. As a conscious deliberation was in part taking place in relation to evidencing assessment criteria it was important to keep the journal entries as ‘open’ as possible. The purpose was to reduce the potential bias that can take place as part of practitioner research.

Anonymity is also important ensuring that any information provided by participants does not reveal their identity. In this thesis anonymity is adhered to by not using the names of participants or any other personal means of identification (BERA Guidelines, 2018), such as the department or the learners that they teach, generalising the areas of practice that they work within and referring to multiple centres and senior managers rather than the actual position they hold. There is no absolute guarantee of anonymity but confidentiality has always been maintained. Findings are shared with participants to ensure they are happy with the anonymity that has been provided and to allow the opportunity to respond to findings to ensure authenticity.

When making ethical decisions Cohen, Manion and Morrison (2011) argue the need to consider the likely social benefits of endeavours against the personal costs to the

individuals of taking part. The process of balancing benefits against possible costs is generally a subjective one and decisions about the research content and procedures should be made in accordance with professional and personal guidelines and reference to the Ethical Guidelines for Educational Research (BERA, 2018).

It is important to strike a balance between the interests of the research and the humane treatments of the participants (BERA, 2018: 7). The BERA (2018) guidelines are applied to ensure ethical considerations were not ignored. Ethical approval was sought and has been given by the University of Sunderland. All research participants have a full understanding of the research purpose and activities in which they are involved. They were made aware that the data may be published at the conclusion of the research. Participation in the research was voluntary and informed consent was obtained. The use of incentives must be 'commensurate with good sense' and there must be recognition that use of incentives can create problems by creating possible bias in participant responses. (BERA, 2018: 33). The incentives given to some of the participants as part of the research were reasonable. The participants were given the incentive to work towards a qualification with no fees, which was reasonable because they completed the learning independently and in their own time. Participants were made aware that they could withdraw at any stage of the research and it would not have any negative consequences on their completion of the qualification. All the data provided by the research participants has been stored securely and anonymity of participants and confidentiality of information has been maintained, in line with the recently introduced GDPR requirements (Information Commisioner's Office, 2018)

Research Methods

The current debate rekindled by the Society for Education and Training (2018) as to whether teaching is an art, craft or science could arguably have an influence on which methodology to use. As this thesis is concerned with the professional development of teachers or how teaching is perceived this could have an impact on the choices that are made. Teaching as a science would suggest a positivist approach, whilst the possibilities of teaching being an art or a craft would lead to an interpretivist methodology. In turn this would suggest the need to consider a more

scientific approach to the methods chosen or alternatively more creative or artistic tools. Unfortunately, such a simplistic choice cannot be made as the debate continues with educational experts making valid arguments for each possibility. Hopkins (2018) argues teachers must bring themselves fully into their teaching, incorporating their values, passions and 'joie de vivre', using their professional judgement to adapt their teaching practice to fit the learning needs of their students, creating a learning environment that is responsive to their 'audience of learners'. In contrast Yates (2018) sees teaching as an applied craft with every teacher developing a repertoire of skills which reflect their uniqueness making them an expert, due to their individuality. However, both Hopkins (2108) and Yates (2018) can see an argument for teaching as a science with Hopkins citing observation as a method used by teachers to see how their students learn best and Yates arguing that scientific methods can be used to describe effective and valuable teaching methods. It could be argued that this lack of clarity encourages a mixed methods approach to ensure that all aspects are captured. The research methods included in this thesis would support this as they include case studies through to the collection of data from management information systems.

As part of this research it is important to consider both qualitative and quantitative data as the quantitative data provides a baseline for collection of more in depth qualitative data. The use of quantitative data, although open to interpretation usually provides statistics that can be analysed and used to demonstrate participation and involvement in the learning community, which is discussed later in this chapter. In contrast, the qualitative data allows greater depth and the opportunity to provide meaning and nuanced views on the areas of learning that are being researched. It is to qualitative data that this thesis rests, placing an emphasis on the creation of case studies incorporating the observations and reflections of the participants.

The emphasis on objectivity within the positivist paradigm means that such a methodology favours a more quantitative approach that uses statistics and experiments (Blaxter, Hughes and Tight, 2010). It focuses on the measurements of outcomes in order to predict and identify patterns. A positivist researcher seeks generalisations and 'hard' quantitative measurable data by means of employing a scientific approach, which often takes place under controlled conditions. The distinction between interpretivist and positivist paradigms are often simplistic and

there can be an overlap in the ways in which methods are used. Consequently a mixed methodology is often adopted, combining qualitative and quantitative data (Burton, Bundrett and Jones, 2008), a route followed in this thesis.

Mixed Methods Research

Symonds and Gorard (2010) state that in the 1970s and 1980s there was a notion that the 'epistemological differences between the qualitative and quantitative paradigms made them fundamentally incompatible' (Symonds and Gorard, 2010 p. 3). Arguments were subsequently made for a 'compatibility thesis' (Teddlie and Tashakkori 2009) which would allow for both qualitative and quantitative research methodologies to co-exist within a single study and the concept of mixed methods methodology was born developing from the notion of triangulation, which allows for the convergence of evidence from two or more methods, enhancing the strength and validity of the research.

> *'Triangulation is seen to increase validity when multiple findings either confirm or confound each other (thus reducing the chances of inappropriate generalisations)' (Symonds and Gorard, 2010 p.9)*

In addition to triangulation the inclusion of both qualitative and quantitative approaches allow for decisions about both the design of the research and the methods to be used to be formulated in line with the aims and objectives rather than by the initial choice of a particular paradigm.

According to Biesta (2017) there are seven levels of research at which mixing might take place. Can the development of critical understanding and analysis work alongside an emphasis on producing solutions and techniques? At each level you need to decide to what extent mixing is possible and for what reasons it might be desirable, it is important to appreciate that it is not just about combining text and numbers. Consideration needs to be given to the following questions when determining whether a mixed method approach is appropriate:

Can you combine text and numbers within the data collected?

Can the different data methods be combined?

Is it possible to mix different types of design?

Can different views of knowledge be included in a single study?

How would the existence of different views about social reality work?

Can different research positions be combined?

(Biesta in Coe, 2017 p.160)

Once a mixed method approach has been considered appropriate the design needs to be decided. It can be a concurrent design where qualitative and quantitative elements occur within the same study. In this design triangulation occurs where separate studies are completed and the findings of the two studies are brought together when they have been concluded. Alternatively, a sequential design can exist where qualitative and quantitative elements alternate. For example, statistical data is collected using a questionnaire and then interviews are conducted to find out about the themes that are emerging. This thesis favours a sequential design, where the quantitative data was collected to obtain a benchmark before embarking on the main purpose of the research, providing opportunities to delve further when areas of interest are highlighted. However, I would agree with Symonds and Gorard (2010) when they argue that mixed methods are not exhaustive and they encourage individuality in research designs allowing for a wider variety of mixing of strategies and activities.

The conduct of mixed methods research depends first of all on the research purpose and once this has been clarified on the design that best meets this purpose so there are no typical methods for data collection or analysis and they can be conducted as the researcher decides. In this thesis the purpose of the research is to measure the impact of informal learning on the professional development of teachers. However, Biesta (2017) identifies the need to consider the dominance of the quantitative and qualitative in the research as this will determine the aim of the research. For example, as is the case in this thesis where the qualitative data is dominant the overriding aim of the research is to generate an interpretive understanding, coined by Creswell and Plano Clark (2007) as exploratory and as a result,

> *'the use of quantitative and qualitative approaches in combination provides a better understanding of research problems than either approach alone' (Cresell and Plano Clark 2007, p.5)*

Symonds and Gorard (2010) caution us from sticking rigidly to such formulas in relation to mixed methods design. They argue that data is fluid and is determined by the researcher, that types of data and analysis are not fixed to any one paradigm, but are part of a process that the individual researcher has the independence to create. They demonstrate through their mixed methods design features the importance of time and weight, explaining that consideration should be given to when each research method will occur and the weight that is to be given to each of the methods chosen, because both have an impact on the data collected. They consider these aspects to be more important than concentrating on whether the data is qualitative or quantitative, a factor they argue that can inhibit the research process. They propose three new categories that should be considered as core elements of the research process, namely construction, transformation and influence.

> *'When elements of the research process are used to construct, transform and influence each other, this is where mixing truly occurs' (Symonds and Gorard, 2010 p.13)*

With this in mind these aspects have been taken into account when deciding on the methods to use, when to use them and the importance given to each research method. The quantitative research methods are used to frame the research by determining which participants should be included and how effective the final participants learning had been. For example, the organisation's Quality Framework document is used to develop the questions for the semi-structured interviews, data is transformed from words to numbers during the analysis of the interviews and due to the variety of research methods chosen there are opportunities for triangulation, which is explored in more depth in the data analysis chapter. As outlined previously the emphasis of this thesis is interpretivist and therefore case studies become the dominant research method.

Data Analysis and Collection Methods

Informal learning as discussed in the literature review can be difficult to quantify and therefore measuring its impact can become even harder. As reflection and learning by experience are dominant factors in this form of learning the choice of research methods and subsequent analysis need to include ways to support these concepts. Despite the increasing importance of digital technology often teachers' professional development in this area follows a 'trial and error' approach. This is supported within

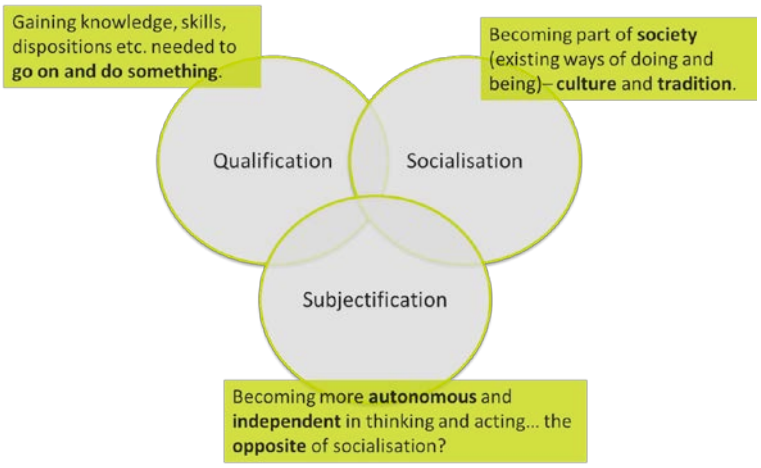
the research site where there is presently little support for teachers to develop their digital literacy. Although there is awareness that teachers need to develop their digital skills there is no formal professional development in place. The learning that takes place is predominantly informal and it was decided that this area of professional development would be an ideal vehicle to evaluate the impact of informal learning on the professional development of teachers. However, the informal nature of the development made it difficult to substantiate and the idea of using a formal qualification to measure its impact was conceived. Consideration was given to whether the existence of a formal qualification would formalise the informal learning taking place and affect the findings. However the purpose of the qualification was to act as a vehicle for collecting relevant data rather than delivering formal learning and it was therefore decided it was an appropriate process. With these concepts in mind the quantitative research methods provided a background to the study and an emphasis was placed on qualitative research methods as outlined in the table to collect the data needed to create case studies that could be used to capture the informal learning and measure its value and impact.

Table 2: Planned Qualitative Methods of Research

Activity	No	Comments
Focus group with SOLA Co-ordinators	16	Chose to discuss in more depth with 50% of sample
Structured interviews with participants	12	In depth discussions to create case studies
Tracking of meetings with Blended Learning Advisers	2	Capture support provided by Blended Learning Advisers to the participants
Evaluation of portfolio evidence	8	Obtain reflective account of informal learning journey
Interview with EQA	1	Discuss qualification evidence

Thinking back to Biesta's (2011) work relating to the purpose of education and the balance between qualification, socialization and subjectification could suggest that the introduction of a Digital Learning for Educators' Qualification would be the ideal situation, as it fits in the centre of the three dimensions, portrayed in the Venn Diagram associated with the theory.

Figure 4 Biesta's domains of educational purpose



Source: http://postgraduatelearning.blogspot.com/p/digital-class-notes.html (accessed 11.02.20)

The qualification offered an informal process, social collaboration, allowing the learners to come to their own conclusions and the opportunity to achieve a formal qualification. The informality of the process and the social collaboration is reminiscent of the socialisation aspect of Biesta's theory. The opportunity to achieve a qualification and equip learners with the knowledge and skills they need to teach in a digital learning environment satisfies the qualification aspect. Whist giving learners the freedom to choose what they learn and how they pursue that learning fits neatly into the subjectification domain. Biesta argues that 'anything we do in education potentially has 'impact' in any of those three domains' (2011) and therefore the relationship to all three domains would suggest a good balance was being sought.

Digital Learning for Educators Programme

The introduction of the programme provided a framework for informal learning opportunities and a way of measuring the impact on the professional development of the teachers involved. Participants were introduced to the learning opportunities at the beginning of the programme and were regularly monitored on their progress. The Award in Digital Learning for Educators is a Level 4 qualification, developed to enable educators to fulfil the requirements of the Further Education Learning Technology Action Group (FELTAG) report (2014) which was set up to develop the use of technology within further education. The aims of the qualification are to enable learners to use learning technology in curriculum delivery; to plan the curriculum to

incorporate the use of learning technologies; and to develop a learning technology toolkit (Ascentis, 2018)

After the initial workshop there is no further formal learning directly related to the qualification, made available. The Digital Learning for Educators' programme that was created relies heavily on teachers' informal learning and aims to develop their skills, transforming their tacit knowledge into explicit knowledge (Wiliam 2009). At the end of the process teachers submit evidence to gain a Level 4 qualification in Digital Learning for Educators. The purpose of the intervention was to establish whether the informal learning they had undertaken provided enough depth and understanding for a Level 4 qualification and could evidence the informal learning that had taken place.

Once the programme was in place data was collected from the project, through completion rates, involvement in the online sessions, records of meetings, reflective journals and the final evaluations completed by the participants. The programme created a rich source of data providing the opportunity to gather opinions from both experienced and less experienced professionals in further education. The reflective journals encourage the practice of reflexivity by providing opportunities for reflection and feedback throughout the process in a form of reflection-on-action (Schon, 1983) an aspect that was considered important by Marsick and Watkins (2001) in their informal learning model. It also allows for data collection by monitoring progress on the programme, completion of particular aspects and finally through achievement of the formal qualification. The majority of the participants in the research are Scheduled Online Learning and Assessment (SOLA) co-ordinators responsible for creating online learning for learners studying vocational courses at Level 2 and 3.

Quality Framework

Within the organisation there is a quality assurance process that provides an 'objective' approach to judging the quality of the online courses provided by the organisation involved in the research. The process uses learner feedback, course review and blended learning design theory to grade online courses against a set of predetermined standards, through questionnaires, participation figures and a quality audit which determines the quality of the blended learning created. The quality framework is not a research method, but the data collected through this existing

process is used to identify themes are explored further during semi-structured interviews with the research participants.

Initial data was collected to provide a benchmark to assist in data analysis as the project progressed. The Quality Framework was used to assess existing online courses, as a demonstration of participants' current skill levels allowing a comparison to be made following their involvement in the informal learning research study. Students benefitting from the teachers' enhanced skills were surveyed to obtain their opinions and invited to expand on their answers by providing more detailed feedback at the end of their online learning experience. This information is used in the analysis to determine the impact of the informal learning that their teachers had completed. Participants were also asked to assess their own digital skills at the beginning of the research by completing an audit of their skills. This assessment was used to determine their personal development and provided a starting point for their reflective journey as documented in reflective journals throughout the research.

Outstanding Teaching Learning and Assessment (OTLA) Project

A further opportunity arose to collect relevant data when three of the participants became involved in an Outstanding Teaching and Learning Project (OTLA) which evaluated the use of student-staff partnerships in enhancing digital skills. The OTLA Project (2019) was sponsored by the Education and Training Foundation and followed the development of student-staff partnerships across a variety of different organisations as they tried out new technology with students mentoring the staff to develop their digital skills. The student-staff partnerships introduced occasions for informal learning through mentoring and a 'trial and error' approach as new digital skills were identified and used within classroom settings. Regular meetings took place and records were kept, the teachers provided reflective journal entries on the process and the project was evaluated. The participants for the OTLA project were able to comment on their experiences and collaborate with others to develop their skills and provided data to use as part of the case study approach adopted in this research.

Learning Community

In order to provide opportunities for collaboration, support and reflection the participants of the Digital Learning for Educators qualification were encouraged to form a learning community. The social aspect of the learning process and its place within informal learning has been discussed at length in chapter 2. Building upon findings in the literature the purpose of the learning community is to provide support amongst its members and encourage collaborative learning through discussion and shared experiences. The idea behind creating a learning community was influenced by the seminal work of Lave and Wenger (1991) on communities of practice.

Lave and Wenger's (1991) research on communities of practice demonstrates that learner identity is embedded in the context in which the individual is co-participating and as such they see learning as an integral dimension of social practice. It would therefore follow that participation in social communities will inevitably involve learning, so by becoming members of a community and participating in that community learning will take place. The members of the community use their knowledge and skills to become fully participant in the community and learn through mutual engagement in activities. The examples of communities of practice provided by Lave and Wenger (1991) display characteristics that are usually stable, cohesive and even welcoming entities. Research undertaken by Hodkinson and Hodkinson (2002) on communities of practice in various school settings demonstrates how these communities create informal learning opportunities for their members, particularly where the communities involved were close because they worked together on a regular basis. They found that learning was an integral and often unconscious part of their lives within their working communities, making them an appropriate method to use for this thesis. Their studies also highlights that the working and learning practices in the departments and schools involved could only be understood if the researcher was aware of the complex interrelationships between the members and the different positions and influences that existed within the departments. These difficulties are also highlighted by the studies completed by Unwin and Fuller who identified that consideration needs to be given to the fact that people can come to the workplace already with well-formed beliefs, understandings, skills and attitudes (Unwin et al, 2005) and this should be factored into any data

collected from this method. Fuller and Unwin's studies (2002) concluded that prior learning, including education has helped construct the whole person before their arrival in the recently formed community and this is addressed in the case study narrative. In addition, as discussed in Chapter 2 the organisation surrounding the community and its attitude to learning can have an impact on the success of any learning venture, so consideration of these factors will need to be central to any data collected.

Informal Learning Opportunities

As part of the learning community members were encouraged to take part in a series of informal learning opportunities which were then monitored to measure their impact. A review of the literature identified a wide variety of informal learning opportunities and after careful consideration those that were considered most appropriate for the participants were chosen.

> *'Employees will go 'hunting' for information, not because they want to learn it, but because they need it to accomplish a task.' (Matthews, 2013 p.82)*

Participants were encouraged to gather information through mediums that they had used successfully during previous learning. In addition they were given access to materials which they were able to use at their own pace, leaving individuals to identify their own needs and locate the material they thought would be useful. During this process participants were subject to the concept of 'trial and error', particularly when developing their digital skills by trying out new software. This differs from reflection, according to Dewey (1933), who identifies the importance of careful survey and elaboration of hypotheses to make it a reflective experience, as opposed to trial and error. As outlined previously a learning community was created which aimed to improve information sharing through networking. Participants were encouraged to use meetings to share knowledge with other practitioners and further develop their own expertise. Within their job execution participants were guided to pro-actively look for new ways of working and ask their colleagues for help. The purpose of these albeit brief, but frequent interactions was to develop ongoing relationships between colleagues, where skills and knowledge would foster community and collaboration. Conversation plays a strong role in performance and productivity and through challenging conversations real learning and understanding

can be facilitated (Matthews, 2013). Cross (2007) views conversation as the most instructional technology on the planet, suggesting that people learn better and deeper when they converse with the right people. Throughout these activities participants were encouraged to reflect on the process and move from initial thinking to experience, a concept developed by Dewey (1933). Finally online forums were introduced to promote a lively exchange of ideas and opinions and encourage interaction (Matthews, 2013) and participation in the informal learning was recorded to measure the impact of these opportunities on the participants' development.

Returning to the ideas of Marsick and Watkins (1991) who suggest that informal learning is a process of learning that takes place in everyday experience and can do so at a subconscious level tending to be individual and with the control of the learning usually resting in the hands of the learner. These concepts are considered to be apt for the members of the learning community developed for this research study as they are all experienced teachers with a predisposition for learning and development.

Case Studies

The presence of the learning community, the Quality Framework and the Digital Learning for Educators qualification all provide opportunities to collect rich and meaningful data for each of the participants and measuring the impact of a nebulous process lends itself to a case study approach.

> *'A question is the starting point of your research. Begin with a question, not a pre-supposition that you are going to do a case study. A case study should follow logically from your question or else you should not do one.' (Thomas 2011 p.30)*

Informal learning and its impact on the professional development of teachers involves real people in real settings and lends itself particularly well to providing detailed narrative and chronological accounts. The case study places the researcher at the heart of the research process as a player and the small scale nature of this thesis allows a case study approach to be adopted (Tight 2017). According to Bassey (1999) a case study should involve the study of a particular case or a number of cases and that the case is studied in context. The advantage of case study research from the point of view of small scale research is that it is bounded by the size of the study and therefore more feasible (Tight, 2017). When there are limits

of time and resources the case study allows a pragmatic approach, tightly and precisely defining what is going to be researched. Thomas and Yin (2011) define what they believe makes a meaningful case study by posing a series of questions:

> Can you understand what the researchers have done and why?
>
> Does their interpretation of their findings seem reasonable and defensible?
>
> Can you relate the case study to other research on the topic?
>
> Does the study suggest plausible change actions and/or further research directions?

When considering these questions the importance of a 'critical friend' as advocated by Bassey (2003) comes to the fore, not only to determine whether these factors exist within a particular case study, but also to provide an audit for the data collected and the conclusions reached. The importance of trustworthiness in the process led Bassey (2003) to introduce eight tests to be conducted to ensure trustworthiness exists within a case study:

1. Has here been prolonged engagement with data sources?
2. Has there been persistent observation of emerging issues?
3. Have raw data been adequately checked with their sources?
4. Has there been sufficient triangulation of raw data leading to analytical statements?
5. Has the working hypothesis, or evaluation, or emerging story been systematically tested against the analytical statements?
6. Has a critical friend thoroughly tried to challenge the findings?
7. Is the account of the research sufficiently detailed to give the reader confidence in the findings?
8. Does the case record provide an adequate audit trail?

Bassey 2003, p.118

The existence of trustworthiness complements the ethical nature of the case study, particularly in relation to those who are being researched, placing greater emphasis on the researcher to ensure this takes place. The BERA Ethical Guidelines (2018) provides a framework of support to ensure ethical principles are followed.

Thomas and Myers (2015) support a three phase design for the case study, beginning with the location of a subject, an understanding of the type of study that is going to be conducted and finally the analysis of the data collected. In this thesis a learning community has been created, consisting of the individuals that are the participants in the case study process. Bassey (2003) identifies different types of educational case study, namely theory seeking and theory testing; storytelling and picture drawing; and evaluative. Case study research in education concerns itself with people, places and events (Sharp, 2009). This study lends itself particularly well to providing detailed narrative stories of real people in real settings, as promoted by Connelly and Clandinin (1990) and is the approach followed in this thesis. Connelly and Clandinin (1990) hold the view humans are storytelling organisms who individually and socially create stories. This concept is particularly appropriate because the study of narrative is all about the way humans experience the world, and experience is at the heart of informal learning. Teachers and learners are storytellers and characters in their own and other people's stories and these experiences are recounted through the narrative created by the practitioner researcher. There is also a link to the creation of communities within narrative inquiry, facilitating collaboration within the research process, an aspect that has already been identified as synonymous with informal learning. Noddings (1986) discusses the collaborative nature of the research process with all participants seeing themselves as part of a community which it is argued has value for all involved. All participants should have a voice within the relationship and consideration needs to be given to both the individual and the social context of the community. This can be achieved through mutual construction of the relationship ensuring that both practitioners and researchers feel cared for and have a voice with which to tell their stories. Although case studies can be limited or bounded in their scope, they can produce valuable data which can be of broader interest to educational research.

> *"Research cannot always change the world (it rarely does, so even if the world is conceived as being just that small piece of it of particular interest to the researcher at a particular moment in time), but it can always aim to be of interest beyond the researcher and the case concerned." (Tight, 2017 p.29)*

The small scale nature of the research provides an opportunity to interview the participants, analyse the qualitative data and obtain individual comments. Due to the

focus on experience and the qualities of life and education, narrative strongly sits within qualitative research methodology. It allows for concentration on the specific rather than the general, favouring depth rather than breadth (Burton, Brundrett and Jones, 2008). The storytelling case study approach was chosen because the concepts being discussed deserve to be told to interested audiences following a process of analysis.

> *'An outcome of the research must be that it says something significant to someone (teacher, manager, policy maker, parent, learner, etc), thereby informing her or his work and potentially helping to improve it.' (Bassey, 2003 p.116)*

In order to ensure this happens case studies were created through observation, reflective journals, structured interviews, group discussions, questionnaires and documentary research. The use of more than one method provides an opportunity to triangulate to ensure trustworthiness and authenticity. As part of the initial research background information was collected on participants' role, previous experience and motivation for taking part to introduce the narrative contained within the case study. In addition, reflective journals, every day observation and unstructured interviews were used to provide the depth being sought in the case study approach.

Reflective Journals

Practitioner research is commonly associated with the concept of 'reflective practice' (Schon, 1983; Gregson et al, 2015) and enables critical reflection about issues that are related both to the practitioner's practice and the practice of those involved in the research.

> *'A journal is like a diary but includes 'deliberative thought and analysis related to practice.' (Holly, 1984 p.78)*

Reflective journals as a method can provide a personal account and are an ideal way of mapping a research journey (Wallace, 2013) encouraging participants to record their development. However ethical consideration needs to be given when deciding on the information that is shared and sensitivity shown before information is collated and analysed. Reflective journals can provide a subjective account, but can also provide important insights (Campbell, Mcnamara and Gilroy, 2004) through evaluation of events, by writing reflectively and critically appraising the outcomes with other colleagues. However, this is dependent on the writer having the skills to

do this and it cannot automatically be assumed that teachers have the requisite skills. They are particularly useful when charting teachers' professional development as reflective practitioners have become synonymous with good practice (Schon, 1983). This is reiterated by Eraut's (1994) five level model of teacher development that spans from novice to expert and identifies reflective and analytical approaches at the expert level. Participants involved in the research were encouraged to complete a reflective journal discussing the informal learning opportunities they experienced and the subsequent knowledge and skills they developed. Reflective journals can often become a description of events rather than a more critical evaluation of what worked well and what could be developed. The reflective aspect is sometimes ignored and can become a form of confessional writing rather than the rigorous form of self-assessment that is designed to illuminate the gap between theory and practice (Mann, 2016).

It is also important to reflect on the research as an active participant in the process and consider the decisions that are being made along the way. It allows us to analyse our practice in general and to consider the implications of our research in relation to our findings. Consequently as part of this research consideration has been given to the researcher's informal learning experiences and the possible influence on the overall findings, because they play a part in the story. Being aware of this when completing the research and showing this within the findings is sometimes referred to as 'positionality' (Opie and Brown, 2019). Bias is inevitable in a constructivist perspective.

> *'It is present because the researcher is never neutral: they always have beliefs and values that inform and influence the research process, and they often interact intensively with research participants' (Opie, C and Brown, D, 2019 p.33)*

Analysis of the researchers' reflective journal and their informal learning journey aims to demonstrate their 'positionality' and provide critical commentary on the events that have taken place during the research process.

Observation

Observations are typically seen as a scientific method and more pertinent to a positivist approach. They allow for the study of facts, events or behaviours and enable the collection of detailed information about what people actually do in situ by

watching them and listening to them rather than by asking them (Sharp, 2009). Generally educational researchers are interested in people and a,

> *'distinctive feature of observation as a research process is that it offers the investigator the opportunity to gather 'live' data from naturally occurring social situations.' (Cohen, Mannion and Morrison, 2011, p.456)*

This allows a researcher to gather first-hand accounts of situations rather than relying on hearsay. There is a distinct difference between everyday observation and observational research. The former is seen as being for personal consumption and adding to our individual knowledge, the latter something that is planned and conducted in a systematic way rather than occurring spontaneously or haphazardly in everyday life (Opie and Brown, 2019). Consequently there are a variety of different forms of observation available ranging from the researcher as a complete participant, immersing themselves in the research, through to the researcher as a non-participant which can be more systematic and allow for statistical procedures to be applied to the data collected. Quantitative observations are characterised by highly structured systematic schedules, whereas unstructured observations can be employed and used as part of a qualitative approach to research as part of one or more of the interpretive paradigms (Burton, Brundrett and Jones, 2008). They can be used to collect information for the purposes of clarification or triangulation and are therefore an ideal research tool for investigating organisational cultures. Consequently, informal participant observation where a record is taken as the practitioner takes part in educational events can provide evidence of what is happening. In their simplest form they can be notes included as part of a reflective journal, but caution should be exercised to avoid the recording of biased data as the practitioner can look at what they observe through their own perceptions and values and this can affect the reliability of the data collected. As an insider there is the possibility that their familiarity with events might mean that anything that is new is missed (Campbell, Mcnamara and Gilroy, 2004) so it is important to acknowledge the subjectivity of the data collected because as the researcher you are immersed in the action. The observations used as part of this research cannot be described as observational research because they do not follow the structured format required for this process, but are everyday observations providing accounts of digital skills development in a classroom context.

Questionnaires

Questionnaires are included as part of the Quality Framework due to their practicality in obtaining the information, enabling a large number of students to be contacted from a variety of different courses and locations. Creating a questionnaire allowed all the participants' students the opportunity to provide feedback on their online learning and provided a sample that was representative of the whole population in question, a factor that is important in ensuring that the sample is valid (Cohen, Manion and Morrison, 2011). Although questionnaires are usually associated with a positivist paradigm, due to the numeric method they employ, when gathering information for comparative purposes it is the most appropriate starting point (Burton, Brundrett and Jones, 2008). It allows for the collation of specific information from the student cohort relatively quickly. Students were asked to complete the questionnaires as part of their digital learning activities ensuring a higher completion rate, one of the disadvantages generally cited for this research method. The questionnaires used were created as part of the quality framework and had been piloted prior to their use to ensure that the questions were as useful as possible because the quality of questions will affect the quality of the data gathered (Campbell, Mcnamara and Gilroy, 2004) and therefore needed careful design. The purpose of the questionnaire was not to obtain detailed information but to provide a 'snapshot' from which further analysis could be undertaken. Cohen, Manion and Morrison (2011) state that when planning a questionnaire it should be structured in such a way that the data analysis can process as planned. Consequently, careful consideration was given to the planning, construction and delivery of the questionnaire as part of the research and this is discussed in more detail in the next chapter.

Interviews

Interviews were completed when data had been gathered from the Digital Learning for Educators qualification, Quality Framework and OTLA project.

> *'The key benefit of the interview over the questionnaire is dependent upon the interviewer's ability to respond to the answers that the interviewee gives and to take the interview in different directions as a result' (Burton, Brundrett and Jones, 2008 p.86)*

Interviews are described by Sharp (2009) as ‘conversation with purpose,’ and encourage the interviewee to express their own ideas. Semi-structured interviews provide an excellent opportunity for participants to discuss their experiences of the project. Dialogue was maintained throughout the process capturing comments and moulding the research project. The External Verifier’s visit at the end of the programme provides a final opportunity to collect data to establish the success of the project and clarify any factors to consider for any future research.

A decision was made to undertake semi-structured interviews to allow for continuity of areas researched, but also the opportunity to delve deeper and gain a richer narrative for the proposed case studies. It allows for a more informal style, but is balanced with some structure which is an appropriate format at the stage of the research when the interviews were introduced. The reason for the use of interviews as a research method is due to their alignment with the interpretivist paradigm and the need to collect more detailed and nuanced data from a relatively small number of participants. It allows for the exploration of perceptions, attitudes and opinions through enquiry when such areas of interest were evident.

> *‘The interview, then, is a flexible research tool ideally suited to collecting data about what people know as well as about their relationships, experiences and feelings’ (Sharp, 2009 p.74)*

The interviewing process is most effective when there is a positive relationship and trust between the interviewer and interviewee but this relationship can also open up the possibility of bias, which needs to be monitored. Sapsford and Jupp (2006) also consider the legitimacy of the interviewer; the perception of the interviewer’s visible characteristics as perceived by the respondent; and the power relationship between the interviewer and the respondent as important. It is felt that these factors will not only have an influence on the quality of the interview, but perhaps more importantly the findings. It is for this reason that records are kept of the interview process to address the possible conscious or unconscious selection of material in the final analysis. Ethical considerations are pertinent to this research method, in particular the confidentiality of the data collected and shared. Discussion around this aspect will be expanded on in the next chapter when data collection is explored further.

However, as with any research there were changes made to the plan during the process. The changes occurred due the lack of availability of certain individuals, the availability of additional activities and a need to obtain richer data. The table documents the changes that were made

Table 3: Actual Qualitative Methods used within the Research

Activity	**No**	**Comments**
Focus group with SOLA Co-ordinators	12	Reduced sample due to availability
Structured interviews with participants	8	Fewer participants were sampled, due to a reduction in the number taking part in the research, but the in depth discussions allowed for the collection of richer data and the creation of 5 case studies
Tracking of meetings with Blended Learning Advisers	2	Informal discussions were completed with Blended Learning Advisers due to the limited interaction they had had with the participants
Evaluation of portfolio evidence	8	All portfolios were evaluated as part of the data analysis
Interview with EQA	1	Interview did not take place but feedback was obtained on the evidence in the submitted portfolio
OTLA Project	3	Reflections from involvement in the OTLA Project which was additional to the planned activities.

The next chapter explores the adapted route as it follows the road map for the research landscape.

Chapter 4 Data Analysis

Traversing the road map of the research landscape

> *'Analysis is about the search for explanation and understanding, in the course of which concepts and theories will likely be advanced, considered and developed''* (Blaxter, Hughes and Tight, 2010 p.225)

It could be argued that researchers grounded in the positivist paradigm start their research with an idea and then collect their data to explore or test the idea. In contrast interpretivist researchers start from their interest in a particular topic and then gather their data to see what light it sheds on the subject. However, it is not always that clear cut and most researchers start with an idea and all have pre-conceptions making it important to systematically work through the data to consider a range of possible outcomes or findings.

The primary task in data analysis is to manage the data and its scope so it can be reported on usefully for the purposes of the research. This is particularly important when a range of qualitative data sources are used, as with this research where data is drawn from questionnaires, audits, discussions, interviews and portfolios of skills development. Managing the data is a significant part of the process, but the analysis of the data by abstracting from it what is of particular importance and significance is the key to creating comprehensive conclusions from the research. Baxter points out that interpretation is the:

> *'process by which you put your own meaning on the data you have collected and analysed and compare that meaning with those advanced by others'. (Blaxter, Hughes and Tight, 2010 p.242)*

Consideration needs to be given to potential bias and a distance from the data needs to be maintained wherever possible (Usher 1996). Researchers should manage the data through a process of coding, wherever possible take time away from it and attempt to analyse along a similar set of concepts so that comparisons can be made. This process will enable the researcher to review the views arrived at alongside others' theories. Patterns can then be recognised and consideration can be given to why they are occurring so that the relevance of the interpretation can be evidenced, in the light of the ideas voiced by others. This is particularly important where new

concepts emerge from those previously identified because it is important to be able to argue the relevance of the data reported on.

Due to the interpretive nature of this thesis the data collected is predominantly qualitative to allow for a richer discussion of the main issues surrounding informal learning. It is also synonymous with small scale practitioner research which is not only restricted by scale, but also concentrates on the nature of education as a lived experience (Cohen, Manion and Morrison, 2011). As previously discussed informal learning is difficult to quantify and therefore lends itself to more descriptive data, as Opie and Brown note *'it is only through qualitative data analysis that one can begin to get the feel for the social reality which underlies any research' (Opie and Brown, 2010 p.216).*

Sharp (2009) suggests that working with words can provide a sense of reality, allowing the researcher to obtain greater depth through the narrative of the participants. It is important to consider the language and dialogue that is used by the participants as this can have an effect on what is being portrayed. However it is also important to be aware of their limitations in terms of what can be represented and also the possibility for misinterpretation by the researcher who is not always objective, particularly if they are immersed in the research themselves. Either form of data is open to interpretation:

> *'The limitation of quantitative data is that it cannot begin to provide any insight into 'why' the findings are as they are. Only qualitative data analysis, even with all its potential pitfalls can offer this.' (Opie and Brown, 2010 p.216)*

However working with numbers can be limited as difficulties can arise when trying to provide the detail behind the statistics which is an inherent part of case study research. It is sometimes considered that where data is evidenced it should be substantiated by proof, however it is difficult to achieve this when working within the interpretivist paradigm because you cannot profess to have definitive proof you can only tell the truth as it is seen, and therefore cannot be substantiated as absolute proof. One of the roles of the researcher is to decide which parts of the data are relevant to the research questions and can be considered as evidence. This can be particularly difficult in practitioner research, where there is a certain amount of bias, due to the immersive nature of the process. It is important to identify those areas that

may be interesting on a personal level, but not necessarily relevant in the data analysis process. Bogdan and Bilden (1992) identify that it is at this stage that the researcher needs to make decisions that will focus and narrow the study and determine how the research is going to progress.

A thematic analysis was considered for this thesis, which allows for interpretation of the data and constructing the meaning through the identification, analysis and reporting of themes (Opie and Brown, 2019). Thematic analysis follows a six-stage process which begins with familiarisation of the data before completing a coding process and identifying themes. The themes are reviewed and then work is undertaken on defining and naming the themes. Once the themes are appropriately named the analysis is written up. In this form of analysis the context is important and it can be difficult to separate the manifest and latent meaning of the data as the frequency of the occurrences are often conjoined with the ideas and inferences that are drawn from them. It is particularly suitable when depth of understanding is an important part of the research and therefore appropriate for the case study approach followed as part of this thesis. However after the initial analysis it was decided that consideration should also be given to a content analysis approach as the methodology had already been influenced by the model created by Marsick and Watkins (2001).

As with thematic analysis, content analysis uses a coding system to categorise the data, identifying the presence and frequency of patterns and trends. Although it concentrates on frequency it also allows for interpretation and description of the data presented. It is a tried and tested method, which has experienced a resurgence due to the advent of the internet and the large amounts of textual data available (Opie and Brown, 2019). Elo and Kyngas (2008) split it into three stages, consisting of preparation, organising and reporting. The presentation stage involves immersion in the data, allowing the researcher to obtain a sense of the whole picture. Working alongside the participants, regularly conversing and discussing ideas and sharing their developmental journey through their portfolios, immersion in the data became a natural occurrence. Gaining an in-depth understanding of the data allows for the next stage which is to organise the data through the process of coding and creating categories. Finally reporting takes place through the use of models, as in this case with the model advocated by Marsick and Watkins (2001). The process has its

limitations because there is a possibility that inconsistency can occur as it involves a degree of interpretation. It also limits the reporting to the categorised elements of the data and this can lead to ignoring the important contextual environment in which the data appears. It was therefore felt that content analysis alone would not be appropriate for this thesis, given the dominance of the contextual factors in informal learning but it was a useful process to test or confirm pre-existing theories, using models to determine the areas to seek out in the text. Consequently when completing the data analysis following the conventions of the thematic analysis consideration could be given to the context and its place in the process.

The presentation and analysis of the qualitative data follows a holistic approach using Marsick and Watkins' model (2001) as a lens to examine and illuminate the findings. Professional practice knowledge (Eraut, 1984) has been used along with personal experience to ensure that the codes and categories used within the research are valid and meaningful (Burton, Brundett and Jones, 2008). Triangulation has enhanced the validity of the outcomes, bringing together data from different sources, through the use of a variety of methods. This also enabled reflection which encompassed alternative perspectives and provided evidence of the recurring themes.

As previously identified in this research an emphasis has been placed on the experiences of a small group of practitioners charting their informal learning whilst developing their digital skills to determine the place of informal learning in professional development. A snapshot of two of the participants, created from a narrative of their journeys, immediately shows the different outcomes achieved during this research, due to the different approaches taken by the participants.

Pascal

At the beginning of this research Pascal was a teacher who had also been given responsibility for developing ILT in his own department. He was keen to try out new technologies and enjoyed developing others within his department. He had started to provide input across college and regularly liaised with members of the IT Department to create online content. He was keen to work towards the Digital Learning for Educators qualification because it was something that he had wanted to do before it was incorporated within this research.

Despite his initial motivation and good intentions early on in the research he was concerned that he had not achieved much in relation to the qualification, possibly because he was busy with his informal learning, attending a three day event at Microsoft and becoming part of the Microsoft community. This really inspired him to develop ILT within the organisation through the use of Microsoft, having support from the senior leadership team and given time set aside each week to run a project within his own department introducing an interactive workbook for learners using onedrive. Prior to this he had already started to use different applications and build up resources which he regularly shared with his own department.

Pascal was involved in Staff Development days within his own department, but also across college. He was constantly taking part in webinars to develop his understanding of Microsoft applications with the intention of becoming a Microsoft Innovator Educator Expert. He was invited to attend the Governors Away Day around Digital Futures where he presented on how Microsoft applications would be introduced and adopted across college.

He continued to make regular contact with members of the ILT team but his initial ideas stalled and he had to proceed more cautiously as the organisation was not yet ready to implement the ideas that he had. This was partially due to his limited understanding of the wider concept of ILT across college, because he had

generally concentrated within his own area and he now needed to look at how it differed across college, highlighting that he had not considered the theory behind the practical application.

He introduced a variety of different projects for his own learners including independent living resources now used by other groups; a blended scheme of work for employability used for extension activities; and an interactive workbook for one of his groups which allowed them to complete the theory in class and then complete their assignment independently with some support through a guided study approach. It was clear throughout this period that informal learning was taking place, but it was very specific, predominantly looking at applications and how they can be used in the classroom. Theories and concepts were not considered and although online content was made available which covered this information it had not been looked at. Opportunities were provided for further stretch on areas he should be considering had to be directed because it was not identified by Pascal himself, although this could be because it was not needed until this point. Informal discussion took place which provided evidence of the progress that had taken place and provided an opportunity to suggest areas to look at in further depth.

Despite all this learning there was no specific evidence, apart from the resources he had created to demonstrate that any learning had taken place. There were brief notes following webinars but nothing coherent that could be used as evidence against a qualification, demonstrating the need to formalise the activities if looking for a way to measure it. Although there were changes in practice individually, departmentally and as an organisation it was difficult to demonstrate the impact and value they had had as they were not immediately obvious and it questions which way around the learning should be done. For example, should the learning come first and then a way of finding evidence be sought or should there be some structure to ensure that the appropriate areas are covered and who in fact decides which parts of the learning experiences are most important?

Pascal engaged in regular sessions to look at progress and it was evident that he was continuing to get involved in ILT and undertaking personal development. He presented at Governors Away Day and was asked to deliver a Cross College CPD day. There are still a lot of aspects that he still needs to learn and he is very practical, but he has less understanding of the theory behind it and this is apparent when discussing strategies for implementation. He is still not recording any of the development that is taking place so it remains difficult to quantify.

As the research progresses Pascal continues to be heavily involved in ILT across the college. He is now part of the showcase team and organising the mandatory CPD on Office 365. He enjoys trying out the new technology and looking at its capabilities. He has a good working knowledge of the applications which he has obtained by trying things out and developing his skills. He would probably be referred to as an expert in the organisation but his deeper understanding of the introduction of ILT within the college is limited and when asked questions that would have required research he struggles to provide a comprehensive answer. He has the characteristics required for informal learning with regards to motivation and willingness to learn and constantly makes opportunities to develop his knowledge and skills when he needs to, however his reflective skills are surface deep.

He was asked to deliver an input to trainee teachers on the use of ILT resources, sharing his own experiences and ideas of how to use different applications in classroom sessions and online activities. This session to trainee teachers provided an opportunity to demonstrate the personal learning that has taken place since teaching his cohort of learners. He is able to identify what worked and what did not work as well and offer advice and guidance. He provides a good example of the experience aspect of informal learning and the collaboration that has taken place between students and peers.

He becomes involved in the OTLA Project but again there is a lack of communication so there is an awareness that he was working with his learner and undertaking activities using ILT but he was not evidencing the learning that is

taking place. He created appropriate resources and completed the activities in the timescales and included some reflection on the process, but there was still nothing uploaded on his portfolio or shared with his colleagues! Following a brief tutorial there was some hope that the development that has clearly been taking place all year will be shared and there will be an opportunity to see how the informal learning has worked, but again this does not come to fruition.

During each of the tutorials examples of the digital technologies that are being used were showcased and it is clear that a lot of learning has taken place through a 'trial and error' process and he provides a really good example of learning about something when it is needed. As with other participants there is limited time to complete the portfolio, but Pascal has been given a day a week to develop his and his learners digital skills by trying out lots of different technology within the classroom and what he has produced demonstrates that with motivation and an interest in the subject and support from management how successful informal learning can become. However, there remains the issue with measurement, because at this moment only those involved in the projects that he has conducted are aware of their existence and this is one of the drawbacks. The other aspects that are not evident are the deeper understanding of why things have worked or not worked, something that is required for a higher qualification and a more sustained approach to learning – hopefully this will become evident in the development journal that he is just about to start!

Practical development of skills will not be a problem to evidence and has been gained through some formal learning, but predominantly informal learning. However the conflicting demands on time continued to prevent any record of the informal learning that has taken place. His place as a digital expert continues to develop and he achieves a dedicated digital role within the organisation and as the research comes to an end he is regularly contacted for advice on all things digital sharing his knowledge and learning across the organisation, so his informal learning becomes more visible, albeit it in a slightly different medium than originally planned.

Ada

Ada is an experienced and ‘outstanding teacher’ teaching levels 2 and 3 of a vocational qualification. She is educated to degree level and enjoys studying independently. In addition to her teaching she has responsibility for creating online content for her learners. She has a keen interest in digital technologies and wants to develop this area because she can see it is the ‘future’ and an area that we will all be required to be proficient in as teachers. She created detailed outlines of her online sessions for the ILT Blended Learning Adviser and although her SOLA courses regularly achieve a Gold standard she understands that there are aspects that need to be developed to make SOLA more effective for both learners and teachers. One of her main motivations for completing the Digital Learning for Educators qualification was to gain the recognition for the work she does in this area.

Ada felt very much out on a limb as she works on a different campus from the other teachers taking part in the research and she felt that this gave her less opportunity to work with them and liaise with them reducing the opportunities for informal learning. She was clearly interested in developing her knowledge and skills and has demonstrated good practice by jointly developing the induction and introducing digital skills development in the Study Skills unit created for her own learners. She was not able to attend the initial workshops for the qualification and therefore had a more limited knowledge of the resources that were available and so to begin with did not really make use of them, tending to search for her own information and direct her own learning by communicating with her peers and taking part in webinars. She made use of individual tutorials to get some guidance and once he she had the direction was motivated to continue exploring and applying the new knowledge gained.

Ada then stalled again not completing much work on Digital Skills because she was not sure of what she should be doing, but as before, as soon as she had a tutorial she was more focussed and got straight back onto reflecting on her

practice and providing evidence of the informal learning that was taking place on a regular basis. It was clear that a lot of work had been completed in this period but because she had not been able to upload it to her portfolio, as she did not have the necessary skills to do so there was no tangible evidence. Once she started to share her work it was clear that she had a good understanding of her digital skills and she was continually developing them, but the theory behind the digital technologies and creation of digital content had not been considered. She felt motivated to continue to develop knowledge but she acknowledged that she needed a nudge and pointing in the right direction to get going again. She continually spent a lot of her own time conducting further research and reflecting on the work she had already done.

Ada got involved in the Outstanding Teaching Learning and Assessment project because she could see that it would provide her with an additional opportunity to develop her skills, working with a student to look at ways digital technology can be used to enhance the educational experience. The reflective discussions that took place with Ada and her student about what is already in place, demonstrates all the right things are being done, but it became clear that during the discussion that despite this learners are still not engaged in online learning and there seems an acceptance that this will always be the case. Ada was not prepared to accept this so she looked at aspects of SOLA and classroom delivery that could be considered and outlined what would need to be covered within the project. As a result the project introduced additional opportunities for informal learning to take place, including shadowing, discussions, student/staff partnership and reflective discussions.

As the research progressed Ada continued to complete all the activities required according to the deadlines that had been set. It continued to be apparent that ILT was used regularly and lots of informal learning was taking place. Generally learning took place by doing and working through, predominantly though it was just in time learning to find answers to problems that were occurring in the moment. There continued to be lots of reflection on the process and this was being recorded in the portfolio so was easy to quantify.

Although the activities were completed for the OTLA project the learning experience was not as effective as it could have been because Ada struggled to get the activities completed and did not make use of the opportunity to have additional support from the Blended Learning Adviser. This was due to a lack of time as the OTLA project ran during weeks which had work experience, exams and a Curriculum Review within them, providing a good example of how difficult it can be to dedicate time to further learning, even when it is related to the job.

Ada was the first to complete everything for her portfolio, working through assessment criteria and ticking off areas that needed to be covered, gaining her Award in Digital Learning for Educators. She had been self-directed throughout the process and keen to complete. She clearly enjoys technology and learns well using it, which has made this qualification much easier. She was always happy to try out new technology and learn through trial and error, which works well for informal learning. Her portfolio provided a rich source of data for the informal learning that took place during the research, but it was also a tool that could be used to measure the impact and value of informal learning on an individual basis.

Before concentrating further on the participants' experiences it is useful to revisit the data that was originally collected to create the parameters for the research, in order to place the findings in context.

Initial Analysis

This thesis builds on a small scale research project which looked at informal learning in relation to formal qualifications (Richardson, 2017). The qualification involved was low level and although it was with a small sample, in principle the concept was successful. One of the recommendations made was that the value and impact of informal learning could be measured by using another qualification at a higher level to recognise the informal learning that was taking place. Following this project and in preparation for the research being undertaken for this thesis initial discussions took place with 37 SOLA (Scheduled online learning and assessment) co-ordinators both

face to face during CPD events and through an online survey. The survey asked a series of questions to determine the time they were given for learning and the motivation they had for learning that was related to their role as this was considered to have a direct bearing on whether the introduction of a qualification would be appropriate. The co-ordinators are from a variety of teaching backgrounds and experience, their digital skills vary significantly and initial results showed that their motivation to undertake the role is dependent on whether they had a choice in doing it.

26 co-ordinators provided data which identified that 19 (73%) did not take on the role through choice. They were asked whether they were given remission for the role or whether they had to do it in addition to their teaching role, which provided a mixed response. They were asked to identify, if they could choose, what they would like as a reward:

Table 4: SOLA Co-ordinator suggested rewards

	%	No
Remission	7.69	2
Payment	53.85	14
Both	38.46	10
Total	100	26

The concept of a qualification was not introduced at this stage although they were given the opportunity to identify alternative options, which they chose not to do. The co-ordinators were predominantly in favour of having payment for the role as recognition of what they were creating. To determine whether any learning was required for the role they were asked if they had the appropriate digital skills to complete their jobs:

Table 5: Digital Skills of SOLA Co-ordinators

	%	No
Yes	46.15	12
No	53.85	14
Total	100	26

Although it was a small majority it suggests there is a need for some learning to take place around creating and delivering online content, this was supported by the question asking if they had received any training in this area:

Table 6: Training received by SOLA Co-ordinators

	%	No
Yes	23.08	6
No	76.92	20
Total	100	26

The training that had been received related to CPD sessions or time spent with their designated ILT Blended Learning Adviser. Interestingly when asked if they had support from their ILT Blended Learning Adviser the majority stated they had, demonstrating that this activity is not seen as training, possibly due to its informal nature. Co-ordinators were asked about whether they thought the online learning sessions were effective. Only 7 (27%) saw the sessions as successful which was supported by the finding that 20 (77%) stated that the sessions were not a positive experience for the learners.

When co-ordinators were asked what they thought would make the sessions more effective for their learners the answers included:

- Linking the work to classroom input
- Linking it to assignments and assessment criteria
- More support

Due to their apparent significance in the learning process these concepts are aspects that were addressed when introducing the informal learning opportunities for the participants of this research. This was done by making it relevant to their job role, linking the activities to assessment criteria and creating a community of practice to provide support amongst one another. The success of these factors are measured later in this analysis.

Within the initial survey the offer of a regular forum was introduced to share ideas and provide information on digital skills. The majority of co-ordinators said they would participate if this was made available:

Table 7: Participation in a SOLA Co-ordinators' Forum

	%	No
Yes	65.38	17
No	34.62	9
Total	100	26

The opportunity to complete a formal qualification associated with their role was also offered and the majority said that they would be interested:

Table 8: Completing a formal qualification

	%	No
Yes	83.33	20
No	16.67	4
Total	100	26

The initial discussion demonstrated the need for learning in this area and some motivation to develop their skills. Time was identified as an issue but support was being provided by the ILT Blended Learning Advisors to assist in creating appropriate online content. Of particular note was the fact that the majority of co-ordinators stated they would get involved in a forum and would be interested in completing a formal qualification as this is not something that happened.

The answers from the initial survey were discussed at later co-ordinator CPD events where the main recommendations were:

- A regular forum to develop their digital skills and promote and enable the wider use of learning technology in their role.
- Introducing a formal qualification.
- Considering other forms of recognition and reward.

Agreement was obtained by a member of the senior management team to set up an online forum and offer the Level 4 Award in Digital Learning for Educators to all SOLA Co-ordinators to be completed by embracing informal learning opportunities at no cost to themselves. This was to address the issues of time and remission that had been raised in the survey.

The online forum was available to all co-ordinators. Posts were added to the online forum on a regular basis over the initial stages of the project. The initial post generated no response, nor did the post asking for interest in completing the qualification. The fourth post had five responses, but they came from respondents who were interested participants and had also shown an interest in completing the qualification. As the project continued the discussion on the forum was minimal with the majority of discussion areas receiving no replies to the initial posted information:

Table 9: Forum post discussions

Forum Post	No	Date
Google as a learning tool	0	15 April 2019
Looking for inspiration	0	26 Mar 2019
Education and Training Foundation Digital Skills Competency Framework	4	2 Dec 2018
Blended learning essentials – developing digital skills	0	7 Nov 2018
Staff Development Day	0	7 Nov 2018
Students' Digital Learning Experience	4	19 Oct 2018
Quality Cycle	1	8 Oct 2018
CPD Opportunities	3	3 Sept 2018
BLC Conference	4	16 July 2018
Digital Learning Quality Framework	0	3 July 2018
Digital Learning for Educators	6	7 May 2018
Socially Connected Teacher	5	20 Mar 2018
Digifest 2018	0	2 Mar 2018
SOLA Co-ordinators Forum – Staff Development Day	0	21 Feb 2018
SOLA Co-ordinators Forum	0	12 Feb 2018

It is equally as interesting to note that of the initial 20 co-ordinators who showed an interest in completing a qualification only 10 came forward. This cohort was increased to 13 when a member of the senior leadership team persuaded 3 other members of staff that they should be involved. Although it should be noted that as soon as the senior leader left the organisation the 3 members of staff withdrew their involvement claiming it wasn't relevant to their role and any informal learning they completed would be related to their main teaching role, as they considered it more important to concentrate on this area with the limited time they had available.

Shortly after the informal learning opportunities were introduced two of the participants decided they would be unable to commit due to time constraints and workload and so the remaining data analysis is related to the eight participants who agreed to take part in the research. The eight participants provide the opportunity to create case studies to tell their stories and reflect the diversity of the FE Sector and the context within which they work. As previously identified this is a small scale research project, so although the numbers are limited it provides the opportunity to look in greater depth at each individual's developmental journey. The participants demonstrate different backgrounds and experiences that teachers bring to their role and the potential influences they may have when embracing informal learning.

To return to the final cohort, the participants are all teachers from a variety of different subject areas, but six (75%) of the participants are from backgrounds that include an element of coaching or reflective practice. Six (75%) of the participants have over six years teaching experience, whilst seven (87.5%) have a first degree, with two (25%) of those participants holding a Master's degree. As the project is related to digital skills the participants were asked to assess their digital skills before the project began and the majority, six (75%) considered their skills to be good with two (25%) highlighting them as limited. At the beginning of the qualification all the participants were keen to get involved wanting to develop their skills further, but also to gain a qualification to recognise their skills in this area.

Qualitative Analysis

The literature review demonstrates the view that informal learning is relevant to practice in a variety of different settings and is most effective where a strong culture of support for learning within the working environment exists. However, despite its relevance and effectiveness it is still difficult to determine its value and impact. Marsick and Volpe (1999) suggests that informal learning is integrated by daily routines, it is triggered by an internal or external jolt and it is not highly conscious. It is haphazard and influenced by change and is an inductive process of reflection and action and linked to the learning of others.

As outlined previously this thesis provides an understanding of what informal learning is especially in the context of FE, with the literature review demonstrating its place in education and the theories that underpin it. Furthermore I would argue that it

is case studies that provide examples of the effectiveness of informal learning and the influence it can have when present. The two case studies at the beginning of this chapter demonstrate the achievements made during the project, evidencing how learning can be valuable both on an individual and on an organisational basis. Nevertheless the informal learning experience is different for each participant and the outcomes achieved vary widely as demonstrated by the stories of Alice's digital skills development, Lisa's staff/student partnership and Ruby's reflections on their use of new technologies.

Alice

Alice is a very experienced teacher, teaching a vocational subject to 16-19 year olds. They have a high level of academic qualifications and a keen interest in development. They were interested in completing the Digital Learning for Educators' qualification long before the project was proposed because they thought it would help them to develop their digital skills which they considered to be lacking. Motivation for the qualification was high at the beginning, spending the summer holidays looking at online materials that had been provided as part of the project. Although they had responsibility for creating online courses predominantly they provided a detailed plan for the ILT Blended Learning Adviser to use and didn't really get involved in the technological aspect. Subsequently they considered their technical skills to be limited and lacked confidence in their abilities. They understood the need for development even though the on line courses that were created were good.

Throughout the research Alice was concerned over the lack of time they had to dedicate to the informal learning and they found it difficult, despite their initial enthusiasm to keep motivated and keep on track, because they felt they were working in isolation. Despite regularly being reminded that there were others in the learning community they continually pointed out that discussion with other participants was very difficult due to work commitments. Out of all the participants

Alice requested the most individual tutorials to seek advice and guidance and direction to get back on course. As they had no time during term time Alice stated the informal learning was taking place in the holidays which was why evidence for the qualification only appeared at these points. There was no real appreciation that the work they were undertaking whilst creating their online courses and the discussions they were having with their ILT Blended Learning Adviser could also be classed as informal learning. Their concept of what constituted informal learning were the areas that they researched as part of the qualification and were able to provide evidence of in their portfolio. Alice worked well when prompted and commented that they benefitted from tutor support.

> *'I need a schedule to work towards to allow for prioritising of the work that needs to be completed to ensure something is done because it is very easy to become overwhelmed by the amount of work that needs to be completed'*

Although they had the motivation to complete and they were steadily developing their skills and knowledge the self-directed aspect required a more formal structure for it to work. They felt it was important to have a more in-depth knowledge and they found the theories and the application of those theories to their own work interesting, but they were frustrated with the lack of time they were given by their department to dedicate to the process. They stated that they were conscious that they needed to develop their skills but they also expressed their frustration:

> *'I feel like I am always having to do other tasks that are set by management rather than being given time to undertake some worthwhile development, particularly in relation to digital skills which are something that do not come easy and therefore need time.'*

In fact, as this project was being completed they were being asked by their manager to take on another qualification, despite currently struggling to complete the one involved in this research.

It was clear throughout the project that development was taking place but it wasn't being recorded and it was therefore difficult to measure impact. However, the final push came in the summer holidays when Alice dedicated time to working their way

through the requirements of the qualification and producing evidence. The initial submissions showed the existence of informal learning through work that had been completed, discussions with colleagues and personal reflections. It demonstrated that informal learning was used to solve problems and develop immediate knowledge. Initially work had to be returned due to its lack of analysis and evaluation and greater direction had to be given to ensure future submissions were more appropriate for the level of the qualification being pursued.

Alice was one of only two participants who achieved the qualification in the initial timescales set through their own personal motivation, the prospect that discussion of the qualification would be included in their Performance Development Review and prioritising it over completing planning documentation required at the beginning of term.

Lisa

Lisa as part of their informal learning took part in an OTLA project funded by the Education and Training Foundation encouraging the use of staff and student partnerships to develop digital skills. Lisa is a vocational lecturer delivering a wide range of units on both Level 2 and Level 3 courses for 16-19 year olds. The learner involved in the partnership was on the second year of the course and hoping to study at university. The project demonstrated Lisa's interest in developing their digital skills and looking at different technology to maintain their learners' interest. Prior to the project Lisa had little knowledge of interactive digital technology and it was felt that this was an area that would be beneficial to the learners in the class and something that they would enjoy. Lisa's learner, as with any student in this age group regularly uses digital technology outside of college and was keen to try out something a little different to make the lesson a little more interactive.

As Lisa and their learner see each other quite regularly they were able to catch up after class but they found that this did not always work and they organised some additional opportunities to discuss ideas and decide on what would work best. They were guided in their use of technology by the Blended Learning Adviser who suggested creating something on H5P as they had recently introduced a branching facility in the software which they felt would work well for the ideas that they had introduced. In addition they considered ways of creating a collaborative document and because the college is an Office 365 showcase it was considered the perfect opportunity to develop their skills using this software.

The Learner spent some time with the Blended Learning Adviser looking at the software and discussing ways of covering the subject and making the case study come to life. Due to the limited timescales the interactive case study was predominantly created by the Blended Learning Adviser but it was a collaborative creation between them all and encouraged them to develop skills in this area. An interactive case study was created using H5P. The case study was uploaded onto Moodle (the VLE used by the college). The case study was introduced and the learners were given instructions on what they needed to do for the activity. Learners were split into groups and given a specialist area and they were asked to work through the case study asking questions and recording the information they found out about their areas of specialism. They were able to use the interactive case study on their PC or their mobile phone, depending on which one they preferred or fitted the headphones that they had brought into the classroom. The information was recorded on a collaborative power point, which had been sent to them prior to the session. When all the information was recorded a case conference was called and the groups used the power point slides to present their case before coming to some conclusions on the best way forward. In the next session the learners were then directed to complete a care plan using Microsoft forms.

Although there were a few teething problems to begin with as some learners struggled to access the case study, once they all started on the activity they found it easy to complete. It was more interesting for them as they didn't just have to read through a document. Introducing 'Casey' as a character helped the learners

to empathise with her case and think about the different options that were available, particularly in relation to her emotional wellbeing. They were able to discuss her frustrations and they felt that it brought the character to life.

When it came to the Case Conference activity each of the specialist groups had clear notes that they could refer to in one document, as the power point presentation they had created collaboratively was displayed on the board. They were able to give examples to explain their arguments. Overall the learners enjoyed the activity and felt that they had learnt something by completing the activity, some of the learners even described it as ’fun’! The learner involved in the staff/student partnership was pleased with the outcome and felt that it worked well, there were aspects of the case study they would now like to develop for other learners, so they had definitely not been put off by the experience and were happy with what had been created in the time that they had.

Overall the project has been beneficial for the learners and the student/teacher partnership. At first the learner was wary about giving Lisa feedback on areas they felt could be developed in their classroom delivery, but once they realised that their ideas were being accepted and discussed they became more willing to give their ideas and the student mentor process worked well in getting a students’ perspective and having the opportunity to look at creating something a little different. In this case study the time spent with the Blended Learning Adviser was beneficial as it led to the creation of the interactive case study which Lisa and her student would not have been able to create alone in the time that was given to the project, a fact reiterated by Lisa when she was interviewed at the end of the project. In fact, the main barrier in this process was the lack of time. Teachers in a further education setting have very little time when they are not preparing, delivering or assessing and with such a short lead into the project it was really difficult to rearrange pre-existing timetables and events, such as exams and work placements. Consequently, not as much time as would have been liked could have been dedicated to the project and the final activity was therefore more basic than any of the parties would have liked. However all those involved felt that it was

really beneficial getting the opportunity to try out something new and introduce a different way of learning.

Lisa reflected on why they think the project worked and following the activity an evaluation was completed with the learners where they considered how the project had impacted on their learning. The project gave them an opportunity to promote the benefits of technology and support their learners in its use. It was agreed that the student/teacher partnership and subsequently the technology used enabled the learners to share responsibility for their own learning and assessment, setting them goals that stretch and challenge. Due to its success it was agreed that consideration would be given to using student/teacher partnerships again, but it would need to be something that was planned from the beginning of the academic year and was given specific time to allow for discussion, experimentation and development.

> *'We created an innovative strategy to encourage the learners to learn and we built a positive and collaborative relationship with both our colleagues and the learners.'*

It provides a clear example of informal learning and how it can take on a range of guises.

Ruby

As part of the research participants were encouraged to use new technologies and Ruby provides a reflective account of this process. 'Being faced with a list of complicated sounding names I began to research and learned that actually I commonly use many of them in my current teaching. Going through the list from top to bottom I found the following. For example when we complete SOLA activities we give the students specific tasks to complete, posters, leaflets and

reflective pieces these can then be utilised in the classroom to explore what the students have learnt from their research (flipped learning). M-Learning or Mobile learning is regularly used for research in the classroom or playing games such as Kahoot! The students particularly enjoy using their mobiles and it is an opportunity for them to integrate them into the lesson without disrupting the flow of the lesson rather it enables depth of learning. I really like the idea that the students and I could co-produce knowledge so that we could share our abilities, my students are far better with technology than me and I have more academic knowledge, I feel the two together would be an excellent use of collaborative learning. I really like the idea of digital storytelling and content curation and aim to try and use this tool in this coming year to add to my SOLA and lessons. I believe that my students have begun to use this when completing leaflets and posters where they gather information and pictures from many different sources to engage the reader in their story of events. I already use collaborative teaching when I gather information from many sources and pass this information on to students in a format that they will be able to understand. I choose digital content in many of my power points already utilising them to support my teaching and enhance the learning experience. I use gamification when planning my SOLA because in the past the feedback has been that the students wish to do more quizzes so I have done this expanding their learning through 5-15 question quizzes where they can then check their answers to see how they have done. The only one of this list that I could not find information that resonated with me was the topic of digital discovery learning. It appears to be an assessment tool whereby students have access to seeing how they have progressed. So the students discover how they are progressing and what needs to be completed to achieve their overall goal. I found the research into these different areas quite eye opening. I was pleased to see how many of them I already utilise to enhance learner experiences in my classroom.'

Their accounts demonstrate the constant occurrences of informal learning and how it takes place on a daily basis and is an integral part of our role as teachers. Despite the regularity with which it occurs there is still a reluctance to identify its occurrence and it is not until we are asked to record it in some way that it becomes apparent.

These case studies alongside the Marsick and Watkins (2001) model are used to analyse the data collected through the interviews, reflective journals, tutorials and projects completed throughout the duration of this research to determine the value and impact that any informal learning has had. The Marsick and Watkins model provided prompts for the analysis of data. The key components of the model were used as a means to compare the experiences of each of the participant case studies. Furthermore the model allowed for the creation of labels to use in the coding process. The analysis can be split into two broad themes comprising of personal features and contextual factors.

Personal Features

- **Everyday encounters**

Marsick and Watkins (2001) argues that learning grows out of everyday encounters while working and living in any given context. The participants involved in the research are all using digital skills within their everyday working lives. They all have responsibility for developing online learning and when questioned they were able to link their learning to the practical tasks they were completing on a daily basis. It would therefore be opportune to introduce the quantitative data that is collected through the management information system of the organisation involved in the research and consider it in the light of the individual participants' narrative journeys.

As part of a termly audit, data is collected from a variety of stakeholders to measure their responses to the online learning experience. The process is in place to measure the quality of online provision and determine the effectiveness of the sessions created. The data is analysed and leads to the awarding of Bronze, Silver or Gold status for a particular online course. Although there are a variety of other contextual factors at play it provides a benchmark that can be used to enter into more detailed discussions of specific issues. The purpose of professional development is related to improving the quality of the individual (Machin et al, 2014) so quality checks both at an individual and organisational level can be used as part of the process to consider whether this is taking place.

During the audit completed in March 2019 courses related to seven of the participants were reviewed and the following awards were given:

Table 10: Awards attributed to online courses created by research participants

Improvement	Bronze	Silver	Gold
0	1	2	4

Overall 15 courses were reviewed and the following awards achieved, demonstrating that those participating in the research were predominantly responsible for the higher awards:

Table 11: Awards given for all online courses during the Quality Audit Process

Improvement	Bronze	Silver	Gold
2	1	3	6

This was further demonstrated in the participation rates of learners completing the online sessions created by six of the practitioners, where numbers remained consistently high and significantly higher than numbers for other areas of the organisation, with the majority of online courses created by the participants achieving over 80% participation for four of the five half terms:

Table 12: Participation figures for online courses created by research participants

Course	No of learners	Half Term 1 %	Half Term 2 %	Half Term 3 %	Half Term 4 %	Half Term 5 %
1	7	100	100	100	0	29
2	21	94	76	76	60	85
3	7	100	100	100	100	0
4	21	87	83	69	55	90
5	25	100	100	96	100	100
6	17	92	92	76	100	53

As part of the Quality process learners are asked a series of questions relating to their online sessions to determine the effectiveness of what is being delivered. The informal learning in this research was aimed at developing digital skills. Digital skills also include the need to create content that is relevant for learners and is at an appropriate level. In order to determine this for the purposes of this analysis the questions from the student survey based around the following concepts have been considered, as aspects that a teacher should address if they are creating online content:

- Challenge of the teaching content.
- Ease of understanding what needs to be done in the session.
- Timeliness of feedback.
- Relevance to assignments and classwork.

In all of these areas the courses created by participants in the research scored highly with the majority of learners finding the content on their courses ‘ok, easy to understand, related to their coursework or assignments’ and where feedback was given it was timely. The everyday encounters that participants experienced led to the creation of effective online learning and the content developed demonstrated their digital skills.

Those with greater involvement in the creation of on line content were able to provide further evidence of their digital skills development. The evidence collected in their qualification portfolio was related to the resources they were creating to deliver learning and was integral to their role as a SOLA co-ordinator or a tutor. In addition to digital skills and use of technology other skills were developed which might not usually have occurred in their daily work. These include writing skills, research skills, referencing, collaborating with colleagues and members of communities outside college, time management and a better understanding of internal processes. These additional skills and knowledge were seen as important, but were not considered to be something that would have been learnt in their everyday encounters, due to time pressures and the fact that many of the participants do not communicate outside of their immediate environment.

As a practitioner researcher I found that my learning has grown out of the everyday encounters I have been exposed to throughout the process. I began my research journey on the Research Development Programme in 2016. I considered myself motivated and organised as a practitioner and felt reasonably competent at reflecting on my experiences. I progressed onto the MPhil and whilst also studying for the MPhil I became involved in the ETF Professional Exchange Programme and an OTLA project also funded by ETF. Keeping a reflective journal of my experiences and looking back on them now nearing the end of this programme provides a real awareness of the variety of informal learning opportunities that have arisen in addition to the formal learning and development activities involved in the programme. Networking with individuals from other organisations has had the greatest influence on my learning and has encouraged me to read more widely and develop my own digital skills in relation to blended learning.

- **Dissatisfaction**

Internal or external triggers lead us to seek out new learning due to a dissatisfaction with current ways of thinking. The focus of this research grew out of a dissatisfaction with the current ways of thinking and a need to find an alternative for the existing professional development that takes place in FE. The need to look at harnessing something that is apparently taking place all the time offered a possible solution.

When participants were asked why they had decided to get involved in the project the majority stated that there was a need to develop digital skills because of the changing work environment and the importance of preparing students for this. It was also seen as an opportunity for new learning by most participants and as one participant said ‘such opportunities don’t come along very often’. They felt that it would potentially enhance their progression and provide further work opportunities, which was evidenced when three of the participants were invited to be involved in the OTLA project based around digital skills. As teachers they were aware that the digital experience learners were receiving could be improved, particularly in relation to online content and they thought this research would provide them with an opportunity to create a better experience for their learners. Within the organisation there was dissatisfaction around limited CPD opportunities and this was another reason for seizing the chance. None of the participants had learnt in this informal

way before, generally following a formal qualification route and though all of them see themselves as motivated and keen to develop they still sought out something a little more structured.

- **Past Experience**

The individual's frame of reference is important because it determines how the trigger is viewed and the present experience that they have is interpreted by using past experiences. Unwin and Fuller's (2007) Learning territories support this concept as they concluded that the participants in their research were influenced by their personal background, prior educational experience and aspirations. As previously outlined, participants come from a variety of backgrounds and are exposed to many different experiences within their everyday professional encounters. None of the participants had engaged in informal learning as their primary method of learning as the majority had undertaken formal qualifications to degree level or above. Their previous learning experiences had involved a structured programme with regular tutor contact and classroom delivery. Those with previous academic experiences had also developed, to some extent, their independent learning skills as they were able to research information and filter out less robust sources, providing more depth to the information they collected and the evidence they produced.

The CPD events attended whilst working in their present organisation had involved traditional face to face delivery and although they all voiced some dissatisfaction with this type of event it was more familiar. Being guided towards the learning that needed to be completed was something that participants identified as being missed in this research. Only one participant appeared to thrive during this research, seeking out the information for themselves and providing a comprehensive and detailed portfolio of evidence. The majority of participants taught subjects that included an element of coaching or mentoring so they had experience of guiding learners through their development, but this was not a skill that they were able to apply to their own learning. All the SOLA co-ordinators had access to an ILT Blended Learning Adviser during this process, but they made little to no use of this resource as a learning method. Less than half of the participants regularly engaged in conversation with their ILT Blended Learning Adviser around ways in which they could develop their digital skills. Those participants that did this had much better

feedback from their learners and their courses achieved the highest standard in the organisation's quality assurance process.

My own experience of learning has been constant and regular, throughout my career I have sought out learning opportunities and have developed a wide variety of knowledge and skills, with many of my colleagues seeking me out for advice. This knowledge and skills has arisen through both formal and informal learning. Recent Professional Exchange meetings, hosted by the ETF, encouraged participants to look at the area of blended learning and apply it in their own context. I found that in addition to learning from my peers it also gave me the momentum to reassess my own teaching and look at ways it could be developed. I used my past experiences of teaching and in particular blended learning to reach conclusions, and without these experiences it would have been a struggle to create the solutions that I did. Without my previous educational experiences I feel it would have been difficult to learn informally because I would not have known how to implement the desired solution. I have started to develop an ability to think more critically, particularly by working at a higher academic level and it is the pursuit of a greater depth of understanding that leads to a more successful outcome and the improved ability to learn informally.

- **Ability to Learn**

The influence of previous experience leads to choices that are made about the actions that we take. Marsick and Watkins (2001) argue implementation of a solution is dependent on the ability to learn well enough to successfully implement the desired solution. Participants were asked to consider how they learn best. There was a mixture of responses with half of the participants being active learners, who consider themselves to learn 'by doing' and taking part in practical activities and discussion, whilst the other half liked to read around a subject thoroughly and then apply theory to a practical situation. Most participants found it more difficult to learn independently and preferred to have some structure and direction. These results concur with the principles introduced by Knowles (1984) when he developed his concepts of androgogy. The idea of 'learning well enough' was considered when participants were asked to outline what depth of knowledge they think they had gained during the process. Only one participant felt that they had achieved depth of knowledge and this was because they had revisited subject areas and delved into

greater detail. The other participants felt that their learning was more superficial than deep and although they had learnt a lot it was at a rudimentary level. The work initially included in the portfolios supports this as participants easily achieved the basic criteria which asked them to describe what they knew or provide evidence of practical completion of tasks. However where there was a need for greater detail and analysis this was not evident and further learning had to take place for it to be achieved. It was clear during the research that participants had a working knowledge of and had developed their digital skills, however the theoretical background required for a more in-depth knowledge, reminiscent of higher level learning, was not immediately provided and was only achieved following tutorial sessions.

Contextual Factors

In addition the ability to learn is influenced by contextual factors and the availability of appropriate resources. These include time; money; people from whom to learn; knowledge about unknown or ambiguous phenomena; willingness and motivation to learn; and the emotional capacity to take on new capabilities in the middle of what could be a stressful challenge.

- **Time**

One reason for the research was the need to find alternative ways of achieving professional development due to the limited time available for teachers within the FE sector. All participants stated that one of the biggest barriers during the process was the lack of time they had to complete the learning. It was a recurring theme throughout the reflective journals, the interviews and the OTLA project. None of the participants were given time away from their teaching commitments and many were given additional duties during the research project which had a huge impact on their capacity to learn. Three of the participants were encouraged by their managers to apply for the ‘Aspiring Leaders Programme’, which it could be argued would provide further opportunities to learn informally but seems counterproductive when they were the participants who were already struggling to reflect on their informal learning. It is interesting to note that all of these participants have engaged in the programme by attending the workshops and meeting with mentors. However to date no quantifiable evidence of their progress is available. Lack of time was seen to be a huge barrier as it prevented participants from the physical and mental capacity to search out the

information, digest it and apply it to their own situations. Not being given the time by the organisation to complete their learning was also raised when the participants were asked what further support would have been beneficial. Four of the participants were actively discouraged in completing the learning during what was deemed as ‘work time’. These participants were frustrated by this, particularly as they found that work generally infringed on their own time, when they could have possibly been able to engage in informal learning.

Participants were unable to quantify the amount of time they had been able to dedicate to the project, they found it difficult to quantify because they were unable to measure some of the naturally occurring activities and the time spent was quite erratic squeezing it in when they had the opportunity to do so. Participants felt that it had occupied a lot of their mental capacity but could not provide evidence in relation to their productivity. The two participants who had dedicated a lot of their spare time to it and taken a more systematic approach had gained the greatest apparent development, demonstrated by their completed portfolios.

As with the other participants in this research the biggest barriers to my learning have been time and workload, there are regular entries in my reflective journal pertaining to the lack of time I have to reflect or even refocus and record my thoughts coherently. The times where I have been most frustrated have been where I haven’t had time away from all the concerns of my role within FE and all too often my work, as is to be expected has taken priority. Even with high levels of organisation, on occasions, this has not had any impact on the unrealistic demands of my role reflecting the same issues that the participants had with work often infringing on my own time.

- **Money**

Money is considered as an important resource in the learning process according to Marsick and Watkins (2001) and as with time it is an aspect that is not in abundance in the FE sector. DfEE (2000) concurred that to ensure the sustainability and transferability of informal learning there must be funding available to support it. There was limited finance associated with this research project which could be argued had a detrimental impact on the final outcome. Financial incentive was offered to the research participants in the form of a ‘free’ qualification and had some influence on

the final completion for a few. One of the participants stated ‘getting something for nothing’ was one of the motivations for taking part. However the lack of financial commitment in relation to being released from teaching, dedicated tutor input and additional resources were cited as barriers to the learning process.

Money has also been an influencing factor on my own learning particularly the exposure to the informal learning. Without sponsorship on the ETF programme I would not have been able to justify the financial commitment and my organisation would not have been able to support me, due to the limited funds presently available for CPD. Attendance at the residential research workshop has opened up a network of other practitioners and their ideas, leading to further learning on areas that would otherwise not have been considered. There is a certain infectiousness in a room of educated individuals who all have a desire to achieve and develop their practice. The discussions outside the classroom had as great an influence, if not more, on my development as many of the more formal activities presented in the classroom. My trip, during one residential, to the Sunderland Glass Centre, with two fellow students led to in depth discussions around possible ways to develop our research, which would not have been reached independently and demonstrates the importance of people from whom to learn.

- **People from whom to learn**

When people learn in families, groups, workplaces or other social settings they are influenced by others. As part of the process a learning community was formed, initially through the online forum and later as members of a group all working towards the completion of a qualification. As discussed previously in this thesis the purpose of a community was to provide participants with support and an opportunity to collaborate (Lave and Wenger, 1991). The ‘community’ aspect of this project was almost non-existent. Two of the participants worked closely together, but this was because they were members of the same department and regularly collaborated already. They co-created content and discussed how to develop their skills, there was some sharing of work and resources and both participants claim this collaboration was beneficial. Communication and having people from whom to learn was also evidenced during the OTLA project where the participants sought each other out to get ideas and discuss what needed to be done. My own reflective journal charts my frustrations and achievements and shows both the influence my peers and

the support from my tutor have had on my progress. Outside of the two participants identified there was limited collaboration and participants learnt in isolation. The forums that were created were not used effectively and any discussions either online or in person were deemed to be superficial and didn't have any long-lasting effect. There is evidence in the portfolio that some resources were shared amongst the participants, in particular the Skills Audit that was distributed to learners to assess their digital skills. The reflective journals provide evidence where there has been some sharing of ideas, but this only exists for three of the participants. When the participants were asked what further support they would have liked it was interesting to note that all of the participants included peer support within their answers. As previously mentioned participants had access to an ILT Blended Learning Adviser who could have been someone they could learn from, but generally they did not regard them as a resource in this process and therefore did not take advantage of this. The participant who demonstrated the greatest development in the process listed communication with other colleagues to obtain information as one of the key skills they had developed.

- **Available knowledge about unknown or ambiguous phenomena**

Not having a full knowledge about a situation can make it more difficult to learn. When contact is limited and instructions and information are ambiguous these can act as barriers. There is a direct correlation in activity on participants' portfolios and their contact with a tutor, some of the participants said it motivated them to continue, whilst others stated it cleared up confusion and enabled them to refocus. A lack of an Information Learning Technology strategy, within the organisation, during the research has meant that participants have on occasions lacked direction, as they were unsure of what they should be developing. In contrast the participant in the first case study was in a more privileged position as they were involved in the ILT direction of the organisation and this led to much greater opportunities for digital skills development.

- **Willingness and motivation to learn**

The initial interest in the project and the final number of participants involved could imply that those who committed had a willingness and motivation to learn. All the participants consider themselves motivated individuals with a desire to develop both their own and others' skills and knowledge. They regularly sign up to new challenges

and pursue developmental opportunities. During the timeframe of this project as previously outlined three of the participants signed up to an Aspiring Leadership Initiative that was launched by the organisation, three of the participants got involved in the OTLA project and two of the participants have been successful in gaining ILT roles within the organisation. It was clear throughout the interviews that participants were motivated and wanted to learn, they all enjoyed learning and had pursued it both prior to and during their teaching careers. They all demonstrated examples of recent professional development in relation to their subject area and their teaching skills. However when they were asked what had motivated them to get involved the following reasons were given:

- Improve own personal knowledge to help learners
- New to SOLA and opportunity to develop
- Recognition for what they are already doing
- Improve own skills and knowledge to get learners ready for real world
- Develop skills in an area that is important within the organisation
- Opportunity to research further into an area already have an interest in
- Open up more employment opportunities.

The responses demonstrate that the motivation for getting involved is complex and varied and being able to address all these aspects could have an impact on involvement. Initial willingness and motivation was high with all participants signing up and getting involved, but as the project progressed it became apparent that motivation diminished as barriers, such as, time and lack of support came into play.

Willingness and motivation to learn can also be influenced by the recognition that is received by the learner. At the beginning of the research it had been identified that recognition of digital skills was limited and this had a negative effect on members of staff to engage in additional learning. During the interviews participants were asked to comment on any additional support that had been received during the project. More than one participant commented that they did not believe that their manager was aware they were working towards the qualification. Their answers reiterated the importance of having time to develop and felt this affected their motivation. When asked whether their manager recognised any of the developments that they had

made, six of the participants said that there was no recognition. This was further exacerbated by the perceived lack of recognition that the participants involved in the OTLA project received from the organisation. However one participant was able to demonstrate the recognition they had been given by their manager with an outline of the additional responsibilities they had been given in relation to digital skills and the recent promotion they had received. This same participant had been exposed to a number of opportunities within the organisation, but to date has not provided evidence of this within their portfolio and have only come to light through communication with a variety of other people and the individual themselves.

Achieving the qualification was a key motivator for the participants, although the motivation had decreased as the project progressed with only one participant compiling all the evidence within the timescale set. Lack of recognition for the work they needed to complete was cited by half of the participants as a factor in motivating them to complete. However two of the participants have now revisited the qualification and will eventually complete because it is now an objective in their Performance Development Review.

I often work in isolation, generally the only person delivering in my subject area appreciating on an individual level, just how important this can be. It is all too easy to set off in a direction and if not questioned continue on what transpires to be an incorrect trajectory. Marsick and Watkins (2001) discuss how error can become embedded at any phase of informal learning, which can lead to inaccurate assumptions. This is something that those involved in informal learning should be aware of, in particular recognising that when it is not examined it can be the source of tacitly held erroneous beliefs. This demonstrates the importance of having a depth of knowledge, particularly when using the newly acquired skills at an organisational level to ensure simple mistakes are not made. This is reiterated by Matthews (2013) as one of the reasons learners should not learn in isolation because without guidance misunderstanding can occur. Willingness and motivation to learn has been a key feature in my informal learning activities, without which I would not have succeeded. When time is limited with many competing demands it is very easy to become de-motivated and choose not to continue. It is even easier when the learning is not immediately obvious and you are not being regularly prompted to engage with it. This was also apparent with the participants as activity on their

portfolios always increased after they had attended a tutorial and discussed the informal learning that had taken place. I had to make a conscious effort to put time aside to embrace the informal learning and more importantly to record what I have learnt, because without that information it becomes even harder to quantify its value or impact. Despite being asked to regularly consider the impact of our learning as we progress through the MPhil it is definitely one of the areas I have not addressed as often as I should. It is at points, such as these that I see my own experiences of trying to collect evidence of value and impact reflecting those of the organisers of the MPhil programme, as my learners also fail to provide evidence that can be used to measure its effectiveness. Without this data it is difficult to quantify impact which mirrors the struggle I am having to measure impact if participants do not include information in their portfolios.

- **Emotional capacity**

Emotional capacity is considered in relation to the ability to take on new capabilities in the middle of what could be a stressful challenge. Emotional capacity has been hard at times and the recurring theme in my reflective journal is a note to myself to keep going, trying to identify areas that I have already achieved, but also opportunities for moving forward. It has to be highlighted, however, that emotional capacity is greatly enhanced through the support of others, demonstrating the importance of one's peers in the informal learning landscape.

Teaching in the FE sector has been recognised as a stressful occupation due to the increased workloads and financial constraints (ETF, 2018). Having the emotional capacity to take on additional responsibilities voluntarily can add to this burden. Although participants were aware of the enormity of the task they were embracing at the beginning it wasn't until they were fully immersed that they understood the challenge they had taken on. Regular contact was maintained with the participants throughout the research and the recurring theme was that they did not have the capacity to engage in learning or evidence these activities and the knowledge and skills they had gained, due to other expectations. When asked what additional support they would have liked they all highlighted the following aspects:

  - Management team to identify their learning as beneficial
  - Additional time

- Peer support

This showed that emotionally it was difficult to learn in isolation and additional support would have been welcomed as a way of addressing this.

If all these contextual factors are addressed a solution can then be produced and it is argued learning will take place. The outcomes are then assessed to decide whether they match the original goals that were set and this is clearly easier to measure if the original goals are explicit. Lessons are then considered and the lessons that are learnt are used in planning future actions. However there also needs to be three conditions to enhance learning, namely critical reflection to surface tacit knowledge; stimulation of proactivity on the part of the learner to learn new skills to identify options and implement them; and creativity to encourage a wider range of options.

- **Critical reflection**

Data demonstrates that there is evidence of knowledge amongst the participants as their learners' feedback suggests that the digital content that they are creating is effective. However, it is difficult to demonstrate this knowledge other than by completion of the portfolio or specific activities. It is even harder to capture tacit knowledge (Polyani, 1958) and if critical reflection has not occurred the tacit knowledge remains hidden and not acted upon, equally if the learning is observed it could be argued to move outside the informal domain. It could be assumed that because all the participants have completed initial teacher training and are all teachers with over six years' experience that they have an ability to critically reflect on their experience. Participants were asked if they saw themselves as reflectors as it was felt that the ability to reflect is a critical aspect in the effectiveness of informal learning. All the participants stated that they were natural reflectors, although one of the participants said they did not follow 'the full circle' and interestingly this is the participant who has yet to complete their reflective journal. Despite claiming to be reflectors it was clear from the evidence submitted in their portfolios that they had not followed Dewey's (1933) more inquisitive approach with an emphasis on challenging what already exists, but had favoured the 'trial and error approach' more synonymous with informal learning. Participants did argue that they were not given the time to step back from their learning and think about what they had learnt before it needed to be applied and this could also have had an effect on the depth of reflection that was taking place.

As with many of the practitioners in the research I see myself as a reflector, from an early stage in my career reflecting on my experiences and since becoming a teacher following Brookfield's four lens model (2017) seeking feedback from colleagues and learners and applying appropriate theory. I have reflected throughout this process trying out new experiences, reflecting on them and seeing how I can develop this further and recording the process in my reflective journal. It is these reflections that have led to an emergence of tacit knowledge to something more tangible and consequently more obvious learning. It is often difficult to move from tacit knowledge, which is why crucial reflection is so important. However, without continually reflecting and acting on my reflections my informal learning would have been lost.

- **Stimulation or proactivity**

Proactivity amongst the participants was varied. Although all participants demonstrated an interest in developing skills and implementing their skills this was not always immediately obvious because it was not included in the portfolio, which was the primary method for collecting the evidence. In discussions with the individual participants throughout the project it was clear that they were being proactive in developing their digital skills. They were regularly using different applications and introducing their learners to new software and could vocalise these activities. They had a greater understanding of identifying and developing their own and their learners' digital skills and had developed additional resources for their learners to address their needs, for example, specific digital skills induction sessions to develop the learners' digital literacy in preparation for their academic study. These online resources showcased the work they had been completing and provided further evidence of their development. Participants became more involved in sharing their skills with others both formally and informally with one of the participants regularly providing CPD for other members of staff demonstrating their digital skills and illustrating how digital resources could be used to enhance learning. Participants were asked how colleagues had benefitted from their learning and all the participants were able to demonstrate that their immediate colleagues now had a better understanding of different technologies and an awareness of how digital technology can be used to enhance the learner experience. Two of the participants had shared their experiences from their informal learning with other members of their department. One participant had also presented their experiences of the OTLA

project at a National Blended Learning Consortium Conference. Comment was made by one of the participants that due to the structure of the organisation it was often difficult to have influence outside of your department and this can affect productivity. All of the participants experienced a certain amount of resistance from others within the organisation, but they have all attempted to introduce their new skills to a greater or lesser degree.

I consider myself to be proactive in the context of learning, seeking out new opportunities for example my involvement in the Professional Exchange and OTLA Project. This is extended to involvement in assisting a fellow researcher with data collection, by using their research question for an Action Learning Project I manage within the organisation. Proactively seeking out opportunities has definitely created informal learning, which has been evidenced in the products created as part of the process, for example, the use of new technologies following an evaluation of the blended learning offer.

- **Creativity**

Working independently with little direction should engender creativity, however for some it provides a barrier, particularly if you are used to having a structure to work within. Participants were given the choice to engage with whatever learning opportunities they found most effective. When participants were asked which of the methods were most effective it was clear a full range of options had been used. However, despite some difference in the most effective, all of the participants favoured the support from their tutor and peers and being given resources to work with which might suggest a less creative approach. Those that used the most diverse range of methods demonstrated the greatest progress.

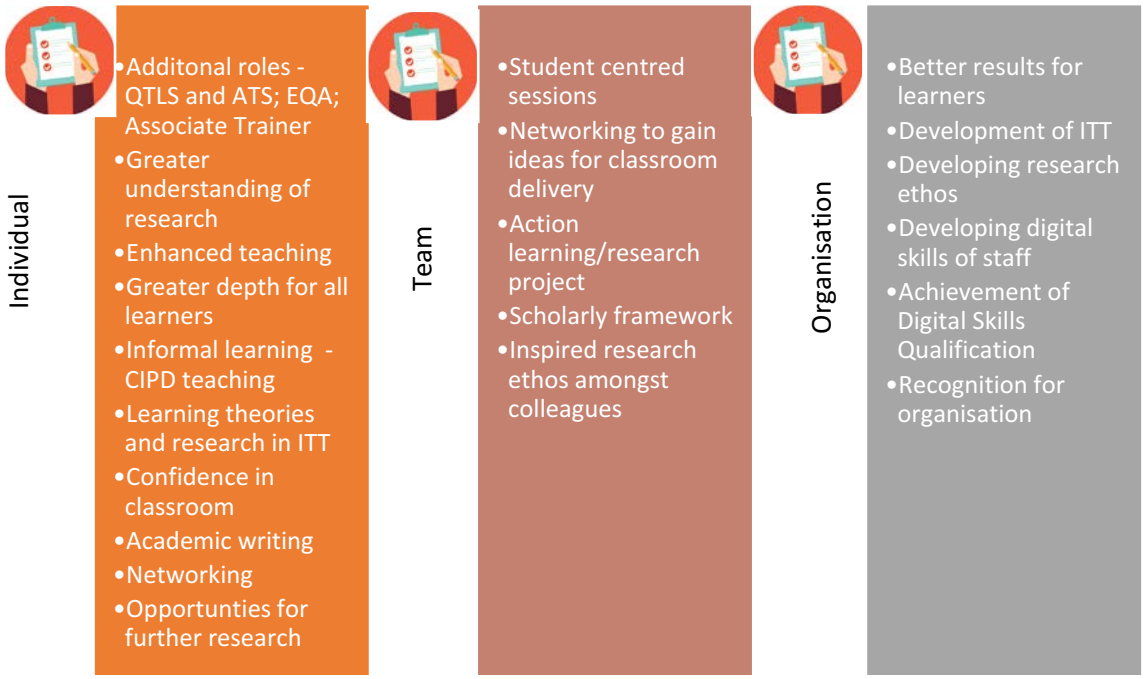
Creativity is considered to be a 21st Century skill (Beard, 2018) so its prevalence in informal learning makes it even more important. Although the participants had not been particularly creative in their approach to the project when they were asked if they felt that informal learning developed 21st Century skills such as creativity and innovation they thought that it did. One participant was quick to point out that it would help if these skills were developed prior to undertaking the informal learning, rather than working on the basis that they would be picked up along the way. Encouraging participants to develop their creativity had a detrimental effect on the assessment

process, as participants created the portfolio in the way that suited them, providing evidence in an apparently random manner. As a result it was difficult to trace evidence as it was embedded in a multitude of sources with no clear references. Some structure and guidance was given but when participants were asked why it hadn't been followed they stated that they needed more detail and support which the informal learning had not provided.

- **Visibility**

Marsick and Watkins (2001) argued that there is a need to teach learners to be more rigorous and visible about learning because otherwise it is not possible to measure it. It is far harder to quantify the learning that has been achieved by those participants who have not completed a portfolio of evidence. Without physical evidence of learning, measurement is reliant on 'word of mouth' and observing the development that has taken place. Regular meetings with the participants provided opportunities for discussion in relation to the development that was taking place. It was through these meetings that it was realised that the development achieved by one of the participants was immense, as outlined in the case study, something that would otherwise not have come to light. Participants highlighted the only other way of identifying development would be to look at products they had developed or observe them in their role, both of which are time consuming activities in an already time limited environment. Collection of management information data provides some evidence but it is difficult to determine when using such data whether the development is as a result of the informal learning that has taken place, because it cannot be quantified with the use of simple statistics.

Often one of the more difficult aspects of identifying whether informal learning has been effective is being able to measure it. Its value and impact can be reliant on who is undertaking the measurement and there can be a different emphasis depending on whether it is the individual, the team or the organisation. What I consider to be valuable on an individual basis in this process might not have as great a value placed on it by the organisation. I have demonstrated this concept by quantifying the value and impact of my own developmental journey on me as an individual, my contribution to the team and the benefits experienced by the organisation.



It demonstrates the variety of different ways in which impact and value can manifest itself and raises the question of how this information is measured for the benefit of each of the entities. An impact grid, which could identify the impact of the learning, could be regularly updated and although potentially subjective, could record information that would otherwise be lost.

Analysis of the data has produced some clear themes, related to contextual factors and personal features, which can now be compared with the literature review to present a number of findings for the research. These findings will be discussed in the next chapter and linked to a series of recommendations.

Chapter 5 Findings

Exploring the routes to follow

In this thesis I set out to investigate the value and impact of informal learning on the professional development of teachers, by answering the following questions:

- What is informal learning?
- Is informal learning relevant for professional development?
- Does informal learning help to develop 21st century skills?
- Is the value of informal learning dependent on recognition and how can this recognition be achieved?

The previous chapter demonstrates that the research has created a Catch-22 dilemma, a problematic situation for which the only solution is devised by a circumstance which is inherent in the problem, it is a trick problem for a no-win or absurd situation. The concept of a Catch-22 dilemma was introduced in Heller's novel (1961) where anyone who wanted to get out of combat duty had to be certified as crazy, which is at odds with rational thinking as trying to get out of combat duty technically is not really crazy as it is the route most sane people would want to travel.

> *'There was only one catch and that was Catch-22, which specified that a concern for one's own safety in the face of dangers that were real and immediate was the process of a rational mind. Orr was crazy and could be grounded. All he had to do was ask; and as soon as he did, he would no longer be crazy and would have to fly more missions. Orr would be crazy to fly more missions and sane if he didn't, but if he was sane he had to fly them. If he flew them he was crazy and didn't have to; but if he didn't want to he was sane and had to.' (Heller, 1961 p.138)*

There are a number of similarities to the concepts presented in Catch 22 (Heller, 1961), although it should not be suggested that they have such life-threatening consequences as the situation that the main character, Yossarian, finds himself in. However the research demonstrates that there are teachers in FE who can draw an analogy with Yossarian, a man completely disillusioned and looking for a way out of his present dilemma. Teachers are finding funding pressures and the consequence of increased workloads are having an adverse effect on their roles and in some cases making them untenable.

The data from this research substantiates the existence of issues presently facing FE as identified in the first chapter of this thesis. It supports the realities of reduced funding and ever increasing workloads. Participants are aware of the need to develop learners so they are ready for the changing workplace, but are often unsure as how to achieve this. The research also makes apparent the need for both teachers and learners to develop new skills which will make them more resilient and prepared for the inevitability of change.

The similarities in this thesis, with 'Catch-22' are not in relation to the context, but to the dilemma. As soon as you formalise learning it is no longer informal and potentially the factors that make it effective disappear. It could be argued that no matter how much informal learning is taking place it will never be recognised because there are a set of rules and bureaucracies in place that do not recognise it as part of professional development, so it will not gain the recognition it deserves until the rules are changed.

The research has also raised a number of other dilemmas. In order to make informal learning effective the very thing it needs is time, but it is the lack of time that has led to the need. A lack of time and funding could lead to informal learning being a viable option for the professional development of teachers. However, its lack of recognition still poses a problem and leads to organisations favouring a more formal approach. Consequently there is greater involvement in formal learning because it can be seen to be taking place, but often to the detriment of the less obvious informal learning, which is possibly more effective, but not immediately recognised as so. Informal learning enriches teachers because it is in their hands but if you start recording evidence, do you stifle the process and therefore should it be left alone to develop organically? This is a concept that Robinson (2015) discusses in relation to education when he argues that working towards a more organic education will lead to creativity and innovation, and consequently develop the skills that are needed to survive in the 21st Century.

Despite these dilemmas informal learning still needs to be measured in some way if it is going to be used as an alternative to the formal learning which dominates the professional development of teachers. This introduces yet another dilemma, does

the value and impact depend on who is measuring it, or how it is being measured? What do we consider to be valuable? Does it depend on what the learner wants from it, what the team wants or what the organisation wants? Does it depend on whether we see value as 'something learnt' or do we need to see some depth and breadth of learning, as suggested by Bloom (1955) in his theory of mastery? Do our concepts of this change if it is related to professional development where it could be argued that a greater depth is required, particularly if we are to be guided by the ETF Professional Standards (2014) which advocate that a teacher should develop a deep and critically informed knowledge and understanding in both theory and practice? It is difficult to determine which aspects of informal learning have the most value and impact. Eraut (2004) highlights that it can be hard to measure when the learning has taken place, so the value and impact of learning could be associated with knowledge and skills that are incidental to the learning, rather than the prescribed learning that is being measured by the outcomes.

The purpose of this chapter is to try and make sense of some of these dilemmas by referring back to the literature on the subject of informal learning and considering the data that has been collected and analysed as part of this research.

Existence of informal learning

The data collected and analysed demonstrates that informal learning took place. There was some 'implicit learning' as defined by Eraut's typology of informal learning (2004) as participants used their past experiences to develop their knowledge and skills. Their reflective journals displayed some 'reactive learning' as in Ruby's case study which included reflections on the use of both their own and their learners' digital skills. The 'deliberative learning' became apparent when they recorded evidence for their portfolios as they were able to include examples of their decision making and problem solving in relation to the creation of their SOLA courses. This 'deliberative learning' was also evident as they considered the areas still needing development. Although examples of all the types of learning introduced by Eraut (2004) were present 'implicit learning' was only found when participants were interviewed, because in relation to past episodes, current experience and future behaviour there was no actual documentation to show it has ever taken place. The typology helps to explain why informal learning is so difficult to quantify because

'implicit learning' is related to personal experiences which are not immediately evident unless prompted through questioning or as part of a more reflective process as favoured by Dewey (1933).

The research supports the model developed by Marsick and Watkins (2001) and demonstrates the need for each aspect of the model, as outlined in the Data Analysis chapter. The data collected shows that if all the elements included in the model are not in existence it has a detrimental effect on the learning process. Informal learning will still exist without all the components, but it definitely becomes less effective. Informal learning needs to grow out of the workplace context and all of the participants identified that the learning that took place was as a result of the need to develop their online content and make it more effective for their learners. The informal learning opportunities allowed them to identify potential solutions and put them into practice, engendering some of the 21st century skills proposed by Beard (2018). The importance of critical reflection in the process was demonstrated by those participants who engaged in this activity and they completed the learning cycle and finished their qualification. In contrast those that struggled with reflective thinking as Gregson et al (2015) discuss tended to jump to conclusions and their learning did not have the same longevity or depth.

'I believe time is one of the biggest barriers we face in education, … Many staff, including myself do not have the time to explore using different technologies and instead use those that they are comfortable with or find an ease of use to them.'

'Creating a SOLA course was very intimidating. The content had to be carefully chosen and implemented in such a way as to provide engagement with learners by responding to the previous years' feedback but also by ensuring that the same thing wasn't repeated again and again. It needed to inspire the learners to want to complete it.'

Contextual Factors

The research demonstrates the nebulous nature of informal learning and the influence of context and additional factors as suggested by Unwin and Fuller in their work on restrictive and expansive environments (2007). The research signifies the influence that contextual factors can have on the overall

effectiveness of informal learning. One of the most important contextual factors was time, throughout the research participants struggled to find the time they needed to engage in the informal learning opportunities. All participants stated that one of the biggest barriers during the process was the lack of time they had to complete the learning. They argued that lack of time meant they could not focus on the additional information, digest the new knowledge or reflect on the experiences. It also meant that they were unable to harness the opportunities they were given, which is integral to the success of informal learning (Matthews, 2013).

Mastery and Craftsmanship

There is discussion throughout the thesis on the 'just in time' nature of informal learning and the subsequent likelihood that any learning achieved will only be 'surface deep'. The evidence that was initially submitted by participants for the qualification demonstrated a basic level of knowledge, which participants claimed they had arrived at because it had addressed the immediate problems that had arisen. The depth of knowledge came later, following further probing and critical thinking and is synonymous with the thought that there needs to be a time for discovery and experimentation before mastery can be pursued (Bloom, 1955). It resonates with Beard's (2018) discussion of divergent and convergent thinking which suggests creativity occurs in divergent thinking where the concentration is on breadth rather than depth. The majority of the thinking taking place in the informal learning in this study could not be described as convergent thinking because the concentration was not on obtaining in depth knowledge. It is more likely to be related to divergent thinking as there was clearly breadth of learning and skills developed, although in the majority of cases it could not be argued that creativity was one of them, which is at odds with the theory.

Due to its lack of depth the learning could also be seen as short term and consequently, as previously outlined, its longevity is questioned, unless participants are immersed in the learning experience they will struggle to get the full benefit of the informal learning they accomplished. As Knowles (1984) argues, to ensure informal learning is more effective there needs to be self-reflection on the part of the participants, they need to play a prominent part in their learning, they need to be motivated and they need to practise and use their new skills. All these aspects were

evident to some extent for all the participants during the research and it should therefore follow that the skills and knowledge they have gained will still be in existence as they continue to develop their online learning. However this is something that cannot be determined without further research.

The development of craft also requires a more in-depth study of a subject which was not prevalent for the majority of the participants. However, there was evidence of problem-solving which Marchand (2016) considers, along with a sense of community to be at the heart of craftwork. It could be argued there was social collaborative learning, which arose from a sense of community but this was limited. The argument pertaining to teaching being a ‘craft’ (Sennet, 2008) could be considered relevant to the value of any professional development undertaken, particularly in relation to the ‘sense of community’ it creates. However, this research demonstrates that even if there is evidence of social collaboration amongst individuals there needs to be a more formal solution at an organisational level for it to be effective.

Professional development as proposed by Czerniawski (2018) should embrace both formal and informal activities that enable critical professional reflection and the opportunity to improve teachers’ professional practice throughout their career. This concept of professional development would allow for the introduction of informal learning, however the ‘continuous experiential learning’ as defined by Lipowski et al (2011), which refers to professional learning including informal learning opportunities that contribute to everyday practice, would be more appropriate because critical professional reflection was not always evident in this research. Participants did argue that they were not given the time to step back from their learning and think about what they had learnt before it needed to be applied and this could also have had an effect on the depth of reflection that was taking place.

Organisational Support

The literature review discusses the importance of the organisation in creating the environment to allow informal learning to flourish and the narrative from participants repeatedly shows a perceived lack of support from the organisation. Not being given the time by the organisation to complete their learning was also raised when the participants were asked what further support would have been beneficial. Matthews (2013) suggests leaders should become learners themselves so they can understand what is needed to make informal learning more effective. He argues that they should provide their support at key moments in the process, when learners initially do something; when they apply their learning for the first time; during the process of change; and when things go wrong. The participants in this study do not provide any evidence that this occurred and they believe their motivation for completing the qualification suffered as a result. They cited the lack of support as a reason why they had been unable to engage fully in the informal learning that was available, concurring with the literature on informal learning.

> *'A clear example is this qualification itself. Although the college was happy for staff to enrol on the course, no time has been made available for those working on the qualification to meet, either with the tutor or with each other. Indeed, even working on generating the evidence for the qualification all had to be done outside of work hours. This absolutely makes the work of becoming a more digitally literate educator seem like a personal area of interest, rather than something the college encourages.'*

These findings demonstrate a restrictive environment as described by Unwin and Fuller (2003), where little access to training and career development is provided and work roles are more restricted. It could be argued that the majority of the participants experienced a restrictive environment, hindering their innovation and treating their teaching roles in a similar way to 'commodity jobs' (Gee and Schaffer, 2005). Informal learning struggles to be effective in a restrictive environment requiring a more 'expansive workplace' (Unwin and Fuller, 2003) to thrive as employees experience diverse forms of participation and as a result learning at work is more likely to happen, which could account for the reason why informal learning took so long to occur. It is interesting to note, however, that Pascal experienced a more

‘expansive environment’ and this case study demonstrates the positive effect this had on the informal learning that took place and even though the research is limited in its scope it reflects the influence the environment has on the overall outcome.

Collaboration

The participants identified support as an important factor in keeping them engaged and motivated. Where participants co-created content and discussed how to develop their skills the collaboration was seen as beneficial. Eraut (2004) states that learning at work occurs through doing things and being proactive which requires confidence that can be obtained from a support network. The support from the tutor was seen as instrumental in keeping the participants focussed and allowing them to refocus and provide evidence of the informal learning they had experienced. Eraut also stated that informal learning is influenced by the workplace and the relationship they have with others. The learning territory as explored in Unwin and Fuller’s research (2007) has had a direct impact on the participants’ achievement during the research. During the process of this research I found out that the prior learning experience of the participants was significant. Those participants who had experience at a higher level and taught subjects that were heavily influenced by reflection seemed more able to work independently. This demonstrates the importance of the learning territory and its possible influence on an individual’s learning and it should be explored to identify some of the factors that might influence the learning journey.

> *‘This to me has the greatest impact on my teaching. All of the digital courses that I run, as well as a number of taught sessions in class are done using collaborative teaching methods, working closely alongside my colleague.’*

Marsick and Watkins developed their model (2006) to incorporate the work of Wenger on communities of practice, namely engagement, imagination and alignment which are also supported and discussed in the Data Analysis chapter. The research considers the effect on engagement of creating and maintaining a community, how imagination is central to learning and the social interaction that comes from alignment. The learning community within this research only displayed these

elements in a limited way and this could have a bearing on why the community aspect of the research was not particularly successful.

Relevance in 21st Century

When the Marsick and Watkins model (2001) is not followed, due to a variety of extenuating circumstances, such as time, workload and a lack of support and motivation, occurrences of informal learning reduce and the occurrences that take place are possibly less effective. Its overall effectiveness has a potential impact on its value within the professional development process. However, its value is also determined by its relevance to all parties involved. The literature demonstrates changes that are taking place in the workplace due to the greater reliance on technology and highlights the gradual change of emphasis in parts of the education sector towards more project based work and self-directed learning (Matthews, 2013). These innovations, however, only work where learners have the appropriate skills either before the informal learning starts or they are developed in a more structured way as the learner progresses.

The isolated way in which the participants approached the project highlights that the components needed for the changing world of work, as identified by Price (2013) in his 'open' concept, do not exist yet in the organisation involved in this research. One participant was quick to point out that it would help if these skills were developed prior to undertaking the informal learning. The social collaborative aspect has not yet been introduced at an organisational level, the openness and sharing of information and resources is limited, stifling informal learning because the participants did not perceive they had the necessary freedom to flourish. The idea that we should be preparing learners for the ever changing workplace was embraced by all the participants, but they did not feel they had the necessary skills to act as enablers for their learners. They all thought it was something that should be

'My biggest concern is that as a teacher I am not only required to teach students English and Maths – alongside a very detailed curriculum – but also to enable them to become 'digitally literate'. When we carried out the initial audit it was quite an eye-opener the extent to which many students did not feel confident with basic digital skills; there was however no real solution due to the time constraints of the curriculum.'

encouraged, but the curriculum remains too restrictive and work would need to be done to embed the 21st Century skills into professional development, giving teachers the confidence to facilitate their use and make the education system more fit for purpose (Coffield and Williamson, 2011). It also points to a need to develop the role of the teacher to become more of a collaborator and coach as suggested by Knight (2017), where teachers develop the transferable skills that learners require to enter the volatile, uncertain, constantly changing, agile environment (CIPD, 2016) that they will be working in.

Recognition

There is a place for informal learning in professional development and it adds value and has impact, but the extent to which it does this is difficult to determine. In situations where learning provides an immediate solution to a problem the informal nature of learning can be effective. If a more detailed understanding of the issue is required the research demonstrates that this is harder to achieve. Therefore if teaching is considered to be a craft (Sennett, 2008), where skills are honed and built upon, informal learning has less value as a professional development tool. However, value is subjective and as such difficult to determine. In this research the importance of recognition was considered and although at the beginning of the research a qualification was seen to be the way in which this could be achieved, as the research progressed the qualification continued to have relevance, but it was apparent that it was also important to get recognition from others within the organisation, particularly managers. The participants did not feel that their managers recognised the developments they had made. The value of learning and its subsequent impact can be increased if support is given. Encouraging a culture of learning and support can have a positive impact, but equally a lack of such support can be detrimental to the process. (Garrick, 1998).

Throughout the research, measurement of the informal learning proved to be difficult, because of its nebulous nature. Unless participants recorded the informal learning they had completed there was little substantial evidence to draw on. The case study of Pascal demonstrates how easy it is to miss valuable learning when it is not universally shared and there is no system in place to do this. The portfolio process only works if participants can see a value to its completion and are motivated by the

potential reward of a qualification (Open University, 2016). Tradition suggest that a piece of paper to signify achievement is still important and certificates have become an integral part of educational culture (Biesta, 2011). Breaking with tradition and changing culture is always difficult. Despite it being a difficult thing to do alternatives have to be considered and one alternative I propose is the need for more recognition and use of informal learning. The next chapter considers some recommendations that will start the process to facilitate this change of direction.

Chapter 6 Recommendations

Choosing the road to harnessing informal learning

Before introducing the recommendations of this research it is important to consider a number of concepts as they will affect the emphasis of any potential solutions to the problems posed in the original research question which aimed to determine the value and impact of informal learning on the professional development of teachers.

The continuing debate around teaching as an art, science or craft (ETF, 2018) affects how professional development is approached. Art allows for a creative process, encouraging the creativity and innovation synonymous with informal learning. Science encourages a systematic process, which can only be introduced if a structure is in place to provide a range of options to follow to achieve the final outcome. Science places an emphasis on measurement which is more difficult to achieve in informal learning. Craft does not favour the 'just in time' approach of informal learning, but does have the basis in community and collaborative learning, which is at the heart of informal learning. There is a place in this thesis for each strand of the debate, but each one needs to be carefully considered.

Of equal importance is whether informal learning is a business solution in an educational context or an educational solution in a business context. As the literature review demonstrates the business world is favouring informal over the formal aspects of learning, particularly those organisations who are adopting the 70:20:10 model (Open University, 2016). There are many analogies that can be drawn between business and the FE sector, particularly the reliance on budgets and achieving more for less, something that drove the initial research. However is the professional development of teachers something too educational to apply a business model to or is this what needs to be done for FE to survive in the next decade as it competes in the wider business arena, alongside independent training organisations and multi-national corporations, who have their own training academies? The 'just in time' aspect of informal learning certainly has a place in a business model, but the scholarly activity favoured in professional development might be less appropriate.

The question needs to be asked: if informal learning has been around since the time of Lindeman (1926) and Dewey (1933) why hasn't it been adopted more widely? It could be because formal learning still appears to be the preferred method of learning pursued by organisations possibly due to the value placed on it. Whether this is due to the difficulties in measuring informal learning or because overall it is not seen as effective it is hard to determine. The advent of technology could make the transition to informal learning more feasible because it provides instant opportunities for social collaboration and access to information (Hemmer, 2018). There is debate around the emergence of technology and the need to prepare both teachers and learners for the changing world of work and an argument that it should not be relied on totally but used to build shared values, because 'adding 21st century technologies to 20th century learning practices will just dilute the effectiveness of teaching' (OECD, 2015 p.31). There is work being done by the Education and Training Foundation, with the creation of the Digital Strategy, Digital Framework and Enhance Digital Platform to equip teachers for the digital age. However, this is predominantly related to the use of technology rather than the skills that allow it to happen, such as creating self-directed learners; coaching; facilitation; growth mindset and creativity, all synonymous with informal learning.

As teachers we like to believe that individuals are motivated by learning and wanting to develop. However, this outlook requires a positive attitude and desire to change which according to the work of Dweck (2008) is the product of a growth mindset, which is something that needs to be nurtured and is not always present. It is therefore important to consider why some people have a growth mindset and how do some manage to succeed where others flounder? Generally those who have come from a more traditional method of learning have been provided with the skills to embrace and benefit from informal learning. The traditional learning process provides opportunities to develop study skills, reflection and creative thinking and without this background it is not always as easy to embark on informal learning. Unwin and Fuller (2007) argue that a person's 'learning territory' can have an impact on their ability to learn. This leads to the question whether training in the skills to make the most of informal learning needs to be there and if so have all teachers got the appropriate 'learning territory' to make the most of the opportunities they are offered? The research suggests that teachers do not necessarily have these skills

already. As Claxton (2017) proposes we should alter our curricular to develop learners' confidence and provide them with the skills to develop their own learning. These skills should be included within the professional development curricular to prepare teachers before they get involved in informal learning.

The advances in technology are not only changing the dynamics of the workplace, but also the classroom. Alexa and Siri can often now be found in the classroom providing a whole new dimension to peer learning providing just in time' solutions to immediate problems creating instant knowledge. What this does not immediately provide is a depth of learning, usually associated with formal qualifications and as such might not be considered as an appropriate alternative, unless it is argued that 'depth of knowledge' is a thing of the past and something that will not be as important in our digital future. Price (2013) suggests formal qualifications will be less relevant with a greater emphasis on what you know and what you can do. Although this might depend on the nature of the role and qualification, particularly where safety is critical. Alternatively as teachers are we expected to be striving for the 'naturalisation' level of Bloom's taxonomy (1955) associated with his theory of mastery, and if so how do we get there with this 'just in time' approach?

This thesis has proved to be more complex than I first imagined and my small-scale research has only scratched the surface. It is fair to say that the catch-22 of informal learning and its value and impact continues to catch me. Overall I still consider it to be important, but as it continues to go unrecognised, this significantly affects its value and impact. In order to make informal learning more effective and relevant as part of professional development the following recommendations are made:

- **Introduce an appropriate structure to support informal learning**

Informal learning in its purist form, according to Eraut's (2004) typology, relates entirely to an individual's experiences and is not appropriate for professional development in the FE sector. In line with Marsick and Watkin's Model (2001) there needs to be some structure in place. The suggestion posed during research commissioned by the DfEE (2000) which concerned introducing informal learning to widen participation in the community would be appropriate:

'If this sort of exercise (faith in the community) is going to be successful really you need to have a person appointed in a sense to be facilitator who's given the time and has got the energy to work with the people.' (DfEE, 2000 p.9)

Providing a structure, and giving responsibility for informal learning would also help to demonstrate the organisation's support. Learners need guidance on what is available to make the most of opportunities and they also require support to think critically to follow the full reflective cycle and develop from the experiences they have been exposed to. The changing role of learning and development and the greater availability of knowledge provides the perfect environment for informal learning. However, not understanding what can be done with the information is a challenge and something that large corporations, such as IBM have realised when creating their Blue Pages, providing an established network for learners to access and use to develop their knowledge and understanding (Cross, 2007).

- **Provide adequate time and support for informal learning to be effective**

The studies of Eraut (2004), Unwin and Fuller (2007), Marsick and Watkins (2001) and Dale and Bell (1999) all emphasise informal learning as being more effective if there is support. Therefore, any structure that is introduced should consider allowing time to take part in informal learning and reflect on the process, but also allow for support to be provided as part of the time that is allocated. The support could be introduced as part of a learning community which would embrace Bandura's theory of social learning (1977) giving learners time to observe one another's behaviours, attitudes and outcomes. Time could be given during CPD events for learners to partake in informal learning and discuss with their peers, a concept put forward during the ETF Training Needs Analysis (2018).

- **Embed informal learning in the culture of the organisation**

In order to nurture support within the organisation and allow learners time to benefit from their learning and make it more effective the support needs to come not only from peers, but also from the organisation. Many successful businesses have embraced the concept of the Learning Organisation, first introduced by Senge (1990). Embedding informal learning in an organisation's culture is a step towards achieving the principles of a learning organisation. Gavin et al (2008) suggest three building blocks need to be in place to become a learning organisation: a supportive

learning environment; concrete learning processes and practices; and leadership behaviour that reinforces learning. Introducing all three building blocks without any foundation would be difficult, so consideration should be given to completing this incrementally. If a learning organisation is a step too far a ‘learnscape’ (Matthews, 2013) might be more appropriate. Learnscapes were originally the areas set aside in schools where pupils could interact with the environment and learn from that environment. The term has since evolved, but it still embodies the central ideas of collaboration, involvement and integration across different groups and can be found in the workplace. Matthews (2013) argues that every organisation has a learnscape and it can be developed by creating a common understanding throughout the organisation of what learning is; introducing subject matter experts and providing them with a channel to share their information; building in informal learning opportunities when formal learning is planned; developing cross teams and an informal mentoring process that is recognised by the organisation.

- **Introduce a staged approach to informal learning**

Any potential structure would need to be introduced gradually providing opportunities that were on the continuum between formal and informal learning. One possibility is to arrange communities of practice as introduced by Lave and Wenger (1991). Communities of practice would provide an academic alternative to a business model, such as the 70:20:10 model favoured by many organisations, which relies on the majority of the learning being delivered through informal methods. Communities of practice provide insight into how people interact around common interests and hence can be used to better leverage informal learning by providing support, structure and incentives for this kind of learning. Marsick et al (2006) suggest that introducing communities of practice could provide progression or possibly a refining of the available learning processes moving from incidental learning through informal learning to self-directed learning, as intention, reflection, awareness and accessibility increase. Developing communities of practice of course requires commitment from the organisation and are much more likely to exist in expansive learning environments. Alternatively self-directed learning could be considered and the gradual introduction could start by embedding it into initial teacher training and extending it into the continuing CPD teachers are required to complete as they become more experienced in their role.

- **Continue to provide informal learning opportunities**

The research demonstrates that informal learning is an integral part of our roles as teachers and resonates with Coffield's (2009, p.25) sentiment that "….. informal learning is not an optional extra but one of the main factors that shapes what kind of human being you become." However, informal learning should not be seen as a separate initiative but should be incorporated in the whole learner journey. Consideration should be given to which informal learning opportunities are appropriate, both for the learner and the organisation. Any informal learning that is introduced should be part of a more formal structure to ensure that the appropriate support and guidance is provided and to avoid any possible misunderstandings, which can take place if the learner is learning in isolation without the full picture (Matthews, 2013).

- **Identify appropriate knowledge and skills to be developed through informal learning**

Education is not yet ready for informal learning as the main option and it is not appropriate for all aspects of professional development. The 21st Century is expected to be fast paced and continually changing and it could be argued that our learning needs to be the same. A decision therefore needs to be made as to whether we should be looking at acquiring skills and knowledge for immediate problems and then discarding the information once it is no longer required. If this is the case we need to consider the knowledge and skills we are trying to develop before determining whether informal learning is appropriate. The research suggests that 21st Century skills, such as creativity, communication, problem solving and innovation are transferable skills that should be developed, but consideration should be given to introducing them as ideas before the informal learning begins or even practicing them as it is difficult to develop them without a starting point. Price (2013) argues it is not what you know that matters, but what you can do with what you know, demonstrating the importance of problem-solving skills in the workplace. It also suggests the limited nature of knowledge, making its acquisition more appropriate for informal learning.

- **Complete further research on the longevity of the knowledge and skills gained during the informal learning**

The discussions around teaching and craftsmanship (Hyland, 2016), mastery (Sennett, 2008) and the need to develop expertise (ETF, 2014) continue, but in relation to professional development there is an expectation that to maintain professionalism there is a need for higher order thinking skills, which are generally only actioned over a period of time. As previously stated informal learning is often seen as 'surface deep' and as such not retained to the same extent as knowledge that has been gained incrementally. If expertise is seen as an integral part of being a teacher the value and impact of informal learning will be dependent on how long the knowledge or skills are maintained. As the research has concentrated on a relatively short timescale revisiting these skills and knowledge at a later date could provide an indication of the depth of knowledge that has been gained.

- **Consider alternative ways of recognising and measuring informal learning**

Dale and Bell (1999) argue that to maximise learning acquired informally it needs to be recognised and valued and it is difficult to recognise for qualification purposes. It could be argued that the question is whether informal learning should actually be measured, but in the present political climate if it is to receive any recognition there needs to be some form of measurement in place, as recognition of learning is still predominantly through the awarding of qualifications. The research demonstrates that it can be aligned to a qualification but it is not a straightforward process. Singh (2015) discussed the importance of recognition, validation and accreditation of informal learning and demonstrated the work that has been completed in Higher Education to accredit informal learning as part of the recognised prior learning route. However this is not something that is always pursued in FE due to the assessment-driven nature of many qualifications there is often an APL (Accredited Prior Learning) process available but it can be difficult and laborious to follow, particularly when there is little recorded about the learning that has taken place. The emphasis still appears to be on accreditation and in order to achieve this evidence has to be clearly visible. It is therefore important to look for alternative ways to measure informal learning. Measurement can take a variety of forms, but could follow a process similar

to the learning trajectories introduced by Eraut during his workplace learning research (2004) which allows for individuals to demonstrate their progress over time and measure their ability to learn from experience. However the measurement of informal learning relies on investment in further education by all its stakeholders to provide the funding and resources that are required.

Final Words

The Catch-22 dilemma raised by informal learning is strong as this thesis demonstrates and difficulty still exists in recognising informal learning, due to its nebulous nature. Informal learning can take many forms and there is no simple formula that can be applied. There is no pre-planned route that can be navigated, to ensure a smooth journey. It is about providing signposts to decide the most appropriate route, choosing the equivalent of footpaths, roads and highways depending on the terrain of the landscape. The research has not created the 21st Century skill set that I was hoping for, but I believe that the more widespread use of informal learning is slightly closer. This is more feasible with the support of an organisation, through the allocation of time, the creation of a learning community and some form of recognition of the learning that is taking place. It demonstrates that there could be some value and impact for informal learning on the professional development of teachers, preparing them for the 21st Century and the changing workplace. However this will only take place if a way is found to recognise and measure it so it can have a chance of competing with the well-established formal learning that is already in place.

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