MIND THE GAP: An investigation into developing forms of feedback that students can use to improve their learning and achievement

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Abstract

The power of formative assessment feedback in raising student achievement has been the subject of discussion and debate among peer-reviewed researchers and world-renowned authors for many years. The consensus is that when conducted in ways which promote active learning, formative assessment feedback has the potential to impact significantly on student achievement for relatively little cost. There is no shortage of advice and guidance to teachers both newly qualified and more experienced, on the theory of formative assessment and how to put it into practice in classrooms. This is where the issue lies. Despite the plentiful range of educational books and research papers that tell teachers what to do, feedback is often a source of frustration for students and teachers alike. Frustrating because teachers generally spend a lot of time outside their contracted teaching hours marking student work only to find that students do not act upon the feedback offered to them by their tutors. Frustrating for the student, as they see no improvement or progress between the tasks, tests and assignments that they submit to their teacher for review. Formative assessment is proving to be more complex and trickier to get right in practice than might have been first thought. Simply telling teachers what to do is clearly not enough. Teachers need to be shown practical techniques for formative assessment that are not only useful for them but also ones that students are willing to actively engage with and act upon. Every classroom environment and every educational setting is different. Each setting has its own individual culture and unique set of students. A Student's reaction to feedback will depend on several factors. For example, age, ethnicity, cultural background, gender, socio-economic group, attitude to learning, prior educational experiences, emotional well-being and perhaps many more. This small-scale, qualitative research study considers the problems faced by both students and teachers in one General Further Education college in a classroom of adolescents aged 16-19 years. The student research participants in this study comprise of 17 students studying for a Childcare and Education qualification over a two-year period. Most of the participants joined the college at age 16 from school following receiving their results in their final examinations. College is often seen as a less prestigious pathway to continuing education as the courses on offer generally have a lower entry requirement than school sixth forms where more academic subjects are offered. The 5 teachers involved in the study all deliver vocational qualifications across a variety of curriculum areas (Health and Social Care, Childcare and Education, Sport, Public Services, Art and Design). This research begins with the story of the students and teachers in the General Further Education College that forms the site of this study, for whom formative assessment is a puzzling phenomenon and therefore a cause for concern. This not least because of their desire to remove the frustrations associated with formative assessment, but also to create a collaborative classroom in which active learning is at the forefront of pedagogical practice. This thesis opens a space for the problem to be discussed openly and honestly in the context of a particular college environment. It seeks to find techniques to close the gap between the theory and practice of formative assessment that have the potential to address this issue by bringing together research from primary, secondary, further and higher *education. The research philosophy adopted for this qualitative study is explained in detail in the thesis, providing an insight into the thinking behind the ontological position of constructivism linked with an epistemology of interpretivist. At the heart of this study is the stories of the lived experiences of the participants. The research is conducted by a sole insider researcher who is interacting regularly with the participants and therefore their position within the research is not that of a neutral observer which may raise concerns about the impact of the researchers' own subjectivities on the research findings. To address these concerns an explanation of the reflective action taken by the researcher is explained within the thesis. To provide transparency the participants stories are recounted in this research using their own words. In hearing their words readers of this thesis can gain real insights into the emotions and feelings of the participants and discern for themselves if the conclusions and recommendations emerging from this study are an authentic and convincing reflection of the lived experiences of the teachers and students who participated in it and without whom this work would not have been possible. To further mitigate bias, the approach taken to the thematic analysis of the data shows clearly the steps taken by the researcher in analysing the data and demonstrates that this has been conducted ethically and rigorously.*

Key words: Feedback; Formative assessment; Close the gap; Active learning

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CHAPTER 1

PROBLEM AND CONTEXT

1.1 The Nature of the Research Problem

Formative assessment feedback is widely researched and well documented in literature. Black and Wiliam (1998a), Clarke (2001, 2014), Wiliam (2018) and Hattie and Clarke (2019) have all written extensively on the benefits of formative assessment in improving student achievement and it is routinely accepted by researchers, academics, and educationalists that feedback is a powerful instrument in developing student engagement, autonomy, and self-regulation. Hattie (1992, 2009) suggests that feedback has the potential to raise student progress by almost double. However, this raises the question, that if feedback is so powerful then why doesn't every teacher enable every student to make this level of progress? A key issue here is that there is often a gap between educational theories and how they are understood in practice. Putting any idea into practice involves much more than just telling or showing people what to do (Gregson and Todd, 2019). Formative assessment is no different and the theories and principles of formative assessment often fail to be realised in practice, disappointing teachers, learners, and education leaders alike (Gregson and Todd, 2019). In short, putting formative assessment feedback into practice in ways that are of use to the student is not as easy as it might first appear. This thesis explores the implementation gap between the theory of feedback and its realisation in practice. It also seeks to provide insights into the nature of this enduring educational problem and offers potential ways in which the problem might be addressed.

1.2 Introduction

Feedback is a relatively new word, defined in the Concise Oxford Dictionary (1964) as the noise produced by a piece of electronic equipment. The educational use of the word can be traced back to Lewin (1947) who first coined the term feedback in the context of discourses surrounding professional learning and assessment. Since the 1950's the word has been more widely used to describe comments about how well or how badly someone is performing on a task. Perhaps, a company seeking feedback from their customers on products they are selling, the aim being to see how satisfied their customers are with the product and where improvements could be made to their goods and/or service. By exploring the word feedback in semantic terms, separating it into 'feed' and 'back', where 'feed' means to nourish and 'back' to return, it can be seen that feedback is a form of communication, in which an individual is seeking to impart knowledge of which the receiver can make good. However, as we know, communication comes in many forms and not all of it is good use of. The problem here, is that communication is complicated. There are many factors that influence how messages are given, received, and acted upon. Get it right and relationships blossom, get it wrong and sparks fly. Communicating information through feedback to trigger a change in student behaviour relies on several factors. Teachers must have a clear understanding of what learners already know, where the gaps in their knowledge are and the type of advice each student needs to make the required improvements. The teacher themselves, not only needs to have a clear understanding of the theory and techniques of formative assessment but also know how to put this into practice in realistic, practical, and pedagogically sound ways to achieve the desired outcome. This may sound simple, as formative assessment is one of the main pedagogical principles of teaching practice. However, the reality is that changing a student's thinking is difficult and changing how teachers go about their practice can be even more difficult. Social psychology provides some insights into the complexities of effecting change and approaches that could be useful to apply when seeking to influence student behaviour. The social learning theories proposed by Vygotsky (1926) and Bandura (1960) discuss the impact of significant others on influencing learning and thinking by exploring how interactions between a student and a more knowledgeable individual can scaffold learning. These models rely on a respectful and trusting relationship in which the student views the teacher as a more knowledgeable individual and one that they can rely upon. Lewin's Model of Change (1947) uses the analogy of a block of ice to describe three steps in effecting change in behaviour. "Unfreezing, changing and refreezing". Firstly, identifying the change that is needed, secondly putting in place interventions to effect the desired change, and lastly reinforcing this so that the new behaviour becomes the norm. In terms of feedback, it is important that the teacher has a clear understanding of what students already know, what needs to change to improve their work and the strategies that might work best. Similarly, to social learning theory the student is an active participant in the process. The first barrier which must be overcome is getting the students to realise that change is needed and secondly the student believes that it is possible to achieve the goal. Bandura (1978) argues that when the demands placed on students are too high, this can be demoralising as the student cannot see the potential for success, just a large obstacle to overcome. This is not helpful to the student as they need to believe in themselves if they are to make progress. Feedback is, therefore, much more complex than it first might appear. This chapter aims to explore the issues involved in the giving and receiving of feedback in the context of the General Further Education (GFE) college in which the research is set, and investigates why feedback is often not listened to, read, used, or acted upon by students. By investigating Clarke's (2001, 2014) advice, in relation to providing feedback that promotes active learning and is of use to students in the form of feedback that students are willing, able and required to act upon, the thesis explores potential ways to provide feedback and set goals for raising student achievement and improving learning.

1.3 Feedback – What is it?

In paragraphs 1.1 and 1.2, the terms feedback and formative assessment have been used together and herein lies a problem as feedback is synonymous with formative assessment. If a student completes an assessment task and they receive no feedback on their performance, then it cannot be classed as formative assessment. This is widely accepted by researchers and authors in the field of formative assessment. Drawing on the work of Scrivens (1967) and Bloom (1969), Wiliam (2006) suggests that the purpose of formative assessment is to provide feedback to facilitate corrections at each stage of the teaching and learning process, highlighting that, "the most crucial feature of formative evaluations, for both Scriven and Bloom, is that the information is used in some way to make changes" (Wiliam, 2006). This is a problem, because this may be where some of the issues surrounding formative assessment appear to reside. It is possible, that some teachers view student's participation in a formative assessment activity as enough in its own right to facilitate learning and that feedback is not an essential element. The different types of feedback students receive on their formative assessments and the impact these have on raising achievement is central to the investigations underpinning this research study. Whilst it is important to have a firm understanding of the terminology, this thesis takes the view that there is a distinct relationship between formative assessment, active learning and feedback and the terms cannot and should not be separated.

Feedback is not an easy term to define as there are as many interpretations of the word as there are uses. Paragraph 1.2 provides the definition described in the Oxford English Dictionary (1964) however, it is difficult to apply this meaning to educational activities, such as formative assessment. Hattie and Timperley (2007, p. 102) define feedback as, "relating to actions or information provided by an agent that provides information regarding aspects of one's performance or understanding". The aim being to fill the gap between the current level of understanding and the desired level of understanding. This is a complex concept and unpredictable because it is not always possible to anticipate the recipient's responses to feedback. Feedback is part of everyday life, and it is communicated to us regularly and in different ways. For example, by an awful noise, when a microphone and its amplifier are placed too close together, through senses such as pain when touching something hot. In both cases the message is clear and rather unpleasant, indicating that action needs to be taken. The microphone will be moved away from the amplifier to stop the horrible screeching noise and the hand will be pulled away quickly to avoid a burn. In these instances, feedback works brilliantly, as it should do, and we can therefore surmise that feedback works and that failure to act upon it can lead to uncomfortable or undesirable consequences. However, what has not been carefully considered is the way in which the feedback is given and how the individual receives and acts on messages, which determine their response. Everyone interprets information in different ways. The sound engineer, checking the band's equipment may not rush to move the microphone as he needs the information from the noise produced to determine the position of different pieces of equipment. Whereas the singer in the band for whom this information isn't necessary may rush to separate them to stop the noise quickly.

1.4 Why is Feedback Important?

When feedback is explored from the educational perspective, the goal for the teacher is clear. Ultimately, they want their students to improve performance by acting upon feedback that has been given. Feedback should promote active learning and encourage the development of thinking skills. However, teachers know this is frequently not the case and often feedback is misinterpreted or ignored by the student. Feedback becomes an instrumental task that is done to satisfy the requirements of the organisation with an eye on inspection by the Office for Standards in Education (Ofsted), rather than as a useful focussing device to support changes in practice that makes a significant difference to learning. However, there is substantial research evidence from the work of Hattie (1992, 2009), Black and Wiliam (1998a), Wiliam (2006, 2018a, 2018b) and renowned educational authors such as Clarke (2001, 2014) that suggest feedback is one of the most powerful tools that teachers have in making a difference to students learning and outcomes. The meta-analyses undertaken by Hattie (1992, 2009) and Hattie, Biggs and Purdie (1996) find in relation to feedback that the average effect is 0.79. Effect size is used in educational contexts to evaluate the effectiveness of different influences on learning by comparing different groups, for example, by comparing the outcomes of many different research studies. Meta-analysis is important in helping any individuals who are connected to, working in, or interested in the education sector to gain an understanding about educational interventions and their impact on student achievement. They help to assess if an intervention is worth trying based on the potential educational gains, which are in some cases compared to costs. Hattie (2009) through his extensive exploration of different educational interventions, including his earlier meta-analysis (1992) finds that the average effect size to be 0.4. This provides a useful benchmark from which to make a judgement about the value of an educational intervention, not only to assess if an intervention will work but also the potential impact of the intervention. Effect sizes below 0.4 are considered to have little impact, whilst effect sizes of between 0.4 and 0.6 are considered to have a moderate impact with anything above 0.7 as having a high impact. Therefore, to place the average effect size of feedback of 0.79 into perspective, it falls into the top 5 to 10 highest influencers, providing strong evidence that feedback is a powerful force when it comes to raising learner achievement. Whilst these figures are impressive, Kluger and De Nisi (1996) argue that not all feedback is good and, in some cases, it has been shown to have a detrimental effect on learning and achievement. The value and effect of different types of feedback is explored extensively in this thesis. Like the research carried out by Hattie (2009), the Education Endowment Foundation (EEF) Teaching and Learning Toolkit (2018) meta-analysis of academic research studied a range of teaching strategies. This found feedback to be one on the most effective means of improving student performance, suggesting learning gains of 0.8 at relatively little cost. Hattie and Clarke (2019) cite many reasons why feedback is an important and integral part of the student-teacher relationship, not only because of the potential gains in academic achievement, but also the positive motivational impacts on the students as they take ownership and responsibility for their work. Fostering this relationship takes time and effort but once in place, the rewards appear to be highly significant for both the student and the teacher. Trust is built and an environment is created in which the teacher and student can co-construct teaching and learning. By working together, the teacher gains a much greater understanding of the student's thought processes and where they have gone wrong and how to help them correct it. This can save time, as any student misconceptions can be addressed relatively quickly.

1.5 Problems with Feedback

A key issue here is students often fail to act on feedback, which causes frustration between students and teachers. As discussed above, teachers spend a huge amount of their time marking and giving feedback which, they believe is provided in a way that students should understand. However, the important assumption here is that students know how to use the feedback effectively to make improvements in their learning. It is not until the new (un)improved piece of work is submitted that the teacher becomes aware that the feedback has not been acted upon, and the student becomes demoralised because their mark has not improved.

Feedback is one of the basic pedagogic principles of teaching and an essential element of the role of the teacher, but it is much more complex than the simplistic definition stated earlier in this Chapter. There are many elements of how feedback is given and received that need to be explored and the first question to ask is, 'what are the problems?' This question cannot be answered simply, because there are many challenges teachers face when giving feedback, whether this be verbal or written feedback, 'in the moment' or post lesson feedback.

The first issue is the quality of feedback. Teachers do not automatically know what high quality feedback looks like. Although, assessment is part of the professional role of the teacher, we must ask, how much attention is paid to this element in initial teacher training courses and how frequently practices are reviewed and revisited in continuing professional development sessions? Giving feedback that is useful to a student is difficult and time-consuming. There are many elements the teacher must think about. For example, the extent to which the student has understood the assessment criteria. The parts of the assessment the student has understood and done well and lastly where the student has gaps in their knowledge. Once armed with all this information, the teacher must then decide how best to support the student to make the required improvements. Each student is unique with their own individual approaches to learning, and the teacher needs to be working in tune with each student to know how best to encourage the student to make the required improvements. Even when all these elements are there, Hattie and Clarke (2019, pg. 169) suggest, "that the power of feedback depends on the receiving skills of the learner as much as the feedback messages provided by the giver". This indicates that teachers need to be aware of the psychological and sociological aspects of giving and receiving feedback. How the student responds to feedback, will often be influenced by past experiences, which can have a positive or negative impact. Students who see feedback as a threat and a criticism will find it hard to engage with any positive messages and become focussed only on what they have got wrong. Dweck (2006, 2017), describes this as having a fixed mindset which can be a difficult barrier for a teacher to overcome with a student. As discussed previously, the purpose of feedback is to trigger a change in student behaviour, but the complexities of this are manifold and depend on the relationship between the teacher and student. Student's experiences of feedback will influence how they respond to feedback from a new teacher, particularly in the early stages of the student-teacher relationship. Students who are perhaps used to receiving no feedback on their work, general meaningless comments or do not feel that their efforts are recognised or valued will find it difficult to trust future feedback. Social psychology, such as Bandura's (1960) social learning theory and Lewin's (1947) change model referred to earlier, can perhaps provide some insight into using approaches that could work effectively, but a teacher will need to be familiar with their application and confident about using them. As Bandura (1978) argues, self-efficacy has a key role to play in developing a student's confidence. When this is threatened, perhaps in the case when the demands placed upon students by the teacher are too high, or even perhaps when feedback is judgemental, then this places a barrier to learning. A students' belief in their ability to succeed is damaged as is the student-teacher relationship. This means the teacher must work even harder on providing feedback to build the student's confidence in their ability, and it will take time for the student to develop trust in the feedback that the teacher has provided.

1.6 Getting the Timing Right

According to Clarke (2001, 2014), the quality of feedback can only be measured by improvements in students' performance and understanding and therefore getting the timing of feedback right is essential. She argues that ill-timed feedback can have a detrimental effect as students learning and thought processes may be interrupted if the feedback is too early or irrelevant if too late. Feedback must promote thinking and learning and therefore it needs to be timely, so that students have the time and space in which to reflect on it and implement it. Thinking skills have for many years been an integral part of the National Curriculum in England, with teachers being encouraged to use a wide range of assessments to set targets for children that stretch and challenge their pupils learning (DfE, 2014). Clarke (2001, 2014) advises that finding time within a lesson to do this is essential and returning work to students quickly, whilst the learning intentions are still fresh in their minds, will aid the process. Doing this also gives the teacher an opportunity to spend more time with students, who perhaps need more direction whilst others complete the improvements independently. Feedback that comes late, for example, after the class has moved on to a different topic, will make it difficult for the student to look back on the learning that happened a few days/weeks ago. Gershon (2017), like Clarke (2001, 2014) acknowledges that giving students time to act on feedback is essential. Without this, there will not be any changes in students thinking or changes in their work. He describes feedback as a continuous loop:

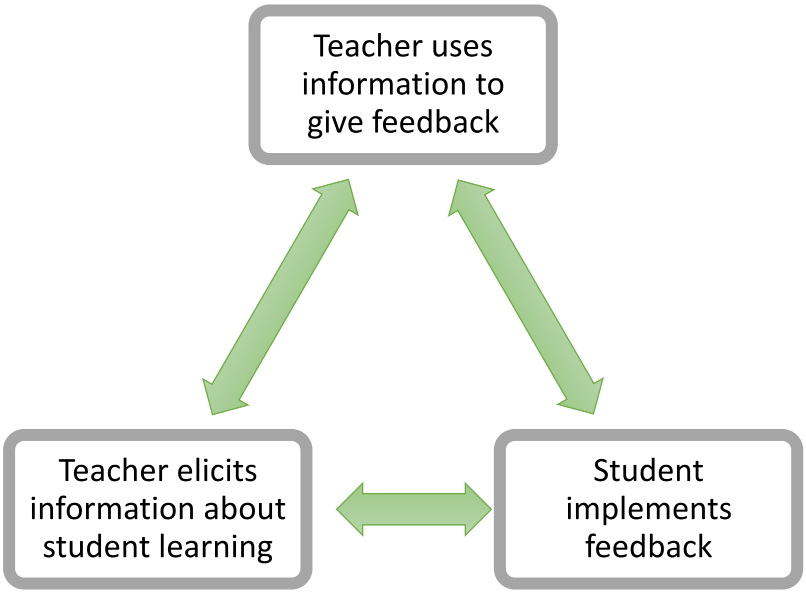


Fig 1: Image adapted from Gershon, M (2017).

Providing the time in class, for students to act upon the feedback, gives the teacher immediate information on how students are using the feedback and what the students have understood. This enables further feedback to be given and thus the loop continues. So, this raises the question of why more teachers do not make time in classes to allow students to act on feedback?

1.7 To Grade or Not to Grade?

The impact that grading or scoring work has is another factor for teachers to consider. Teachers must ask themselves, how necessary it is to label a piece of work and therefore the student by a grade or score. Research by Butler (1988) points to grading as being one of the weakest forms of feedback as it does not incentivise a student to improve their work. This has been explored in several research studies. For example, Butler (1998) found when comparing the performance of students who had received only written comments, they outperformed their peers who had received written comments and a grade. Black and Wiliam (1998a, p.6) review this in their report *Inside The Black Box, noting* that, "The giving of marks and the grading function are overemphasized, while the giving of useful advice and the learning function are underemphasized". This is an emotive subject, because grading is commonplace in secondary education and by the time a student enters the post 16 sector, they have a clear understanding of the grades they are working at, and the grades they are working towards. Students on entering a GFE college will often label themselves by their grade. This can be detrimental regardless of whether the student considers themselves to be an 'A' or 'F' grade because they see that as the most important reflection of their intelligence and ability. Research on Mindset by Dweck (2006, 2017) suggests that by defining themselves by a grade, students are unwittingly telling themselves that their intelligence is fixed at that level which closes the door to learning as they have no interest in how to improve. The other issue with grading is the competition it creates between students, which Kohn (2011, p. 75) describes as, "the single most toxic ingredient to be found in a classroom", as the focus is on performance rather than learning. The extrinsic drive this creates to outdo peers means success is measured on how many people they have beaten rather than what they have learnt. Grades, therefore, do not tell the student anything about the quality of their work or what they can do to improve, only how well they are doing compared to others.

Having identified an issue with grading on feedback, it may seem an impossible task to address this in the GFE post 16 environment in which this research is set. In this context, it can be argued that developing a new approach to feedback is not feasible. Students come to college with at least 11 years of educational experience. They have been subjected to many different forms of feedback ranging from excellent to poor and developed their own strategies on how they approach feedback. In the two years leading up to further education attendance the student's focus has been on achievement in their General Certificate of Secondary Education (GCSE) examinations, and the course level they progress on to at college is determined by the GCSE grades achieved. Students often introduce themselves, stating 'I have a grade C profile'. With such an ingrained attitude, the question is, is it even worth trying to develop a new approach to feedback? One that will move students away from being passive recipients, to methods that encourage thinking beyond a grade or score that requires the students to invest as much, if not more time and energy than the teacher. Data from this study suggest that the answer is categorially 'yes'. Kohn (1999) finds that when the focus of feedback is not on grades, but on helping students to identify for themselves what they have done correctly and what is required to develop the work, students work improved significantly. Similarly, Butler's (1987, 1988) research supports this view, as she found students who received careful diagnostic feedback performed better than students where grades were given, either on their own or alongside diagnostic feedback. She found that whenever feedback includes ego-related statements such as grades, scores or praise that student's performance on tasks and willingness to engage in challenging tasks diminishes. In contrast when the focus of the feedback is solely on progress made in relation to the goal, performance on a task increases.

1.8 What is 'High Quality' Feedback?

There are further problems that can arise with the quality of a teacher's feedback. A fundamental issue can be students' interpretations of the feedback. The feedback may in the teacher's mind, include the crucial information to inform the students of their progress and goals for making improvements, and the students may think that they understand the directions the teacher is pointing them towards. However, quite often subsequent work is submitted to the teacher without the necessary corrections or with additional work that was not actually required. This is a tricky issue to resolve. Ultimately, it is about the teacher and the student working collaboratively together to gain an understanding of how the student learns and tailoring feedback so that it works for everyone. This is reflected in Coffield's (2009) useful analogy of the teaching and learning partnership. He suggests that the tutor and student are partners on a tandem bike, with the teacher sitting at the front leading, but both need to pedal in time to move the bike forward. Over time, the tutor relinquishes control, and the student takes over the lead. The teacher's role is to help the student to grow in confidence and help them to develop their own strategies for improving their performance. Throughout, the process the teacher offers scaffolding appropriate to the student's needs at that time. As with a building project, the scaffolding is gradually dismounted as the house can stand on its own foundations. The skill of the teacher is to know how much scaffolding to provide. Too much and the student becomes overly reliant on the teacher and the teacher ends up doing all the work with the student being a passive participant, who is more than likely to be happy that their teacher is working so hard on their behalf. Too little scaffolding will result in damage to the student's self-efficacy and belief in their ability to complete the learning tasks. However, the journey of gradually reducing the scaffolding will not always be smooth. As Hattie and Clarke (2019) point out there is a need for flexibility. The teacher will have to adjust their strategies if they are not having the impact they expected, this might mean taking the lead while new strategies are being implemented and tested by the student. An important aspect to consider here is that using this approach of personalising the learning for the student means that the teacher is listening to and acting upon feedback from the student, which Hattie and Clarke (2019) suggest is more powerful than teacher to student feedback.

To develop this collaborative and cooperative relationship, the next question to ask is 'what is high quality feedback'? This returns us to the point, that teachers do not automatically know what high quality feedback looks like or indeed how it works in practice. Feedback that is vague, lacking in advice, difficult to interpret or is critical can have detrimental effects. Kluger and DeNisi (1996) in a meta-analysis on the effects of different types of feedback found that not all feedback is useful or positive. In fact, they found that in one-third of all cases examined, the feedback students received, had a detrimental effect on learning. This leaves us in no doubt, that feedback is a powerful tool. Get it wrong and the results are that students feel they are unable to do tasks, their self-esteem suffers and their engagement with learning is damaged. This point is explored by Clarke (2001) as she notes that feedback is often responsible for regression in many school pupils, as teachers frequently fail to focus their attention on what the students should be learning but emphasise surface features such as presentation and grammar and spelling errors. The result of this is that the quality of the work in relation to the learning is neglected. In contrast when feedback gives information that leads to improvements in students' performance and understanding the rewards to both the student and the teacher can be huge. Drawing on the work of Sadler (1989) there are some key elements that need to be considered when giving feedback to students. Firstly, students need to know the purpose of the task, secondly, how far they have achieved this and lastly, what they need to do next to obtain the goal(s) or to 'close the gap'. Hattie and Timperley's (2007) model of feedback draws on Sadler's theory by suggesting three questions that feedback should communicate to a student:

- Where am I going?
- How am I going?
- Where to next?

There are several benefits to students and teachers of implementing these models, as if used well they should help to encourage students to achieve the goal(s). The obstacle to overcome here is engaging with teachers in a way that they feel empowered to use strategies without feeling that their workload is being added to. Teachers are busy people and introducing strategies that they see as additional work will not be well received. It is also very likely that the teachers in the GFE college environment where this research is set are already familiar with the three conditions for feedback discussed above but may feel it is too difficult to put into practice when they have so many assessments to mark. However, this does not have to be the case. Clarke (2001, 2014) suggests marking work using a highlighter pen in three places where students have achieved the learning intention and a different colour where students have not met the criteria. This is supported by an arrow, extended to a space on the paper where the teacher adds a 'closing the gap' statement to help the student make improvements. The challenge here, is to think of this in terms of students aged 16 plus and to ask how this strategy can work or be adapted, as there would only be a detrimental effect if students felt they were being treated like young children. Additionally, Clarke, (2001) illustrates how 'closing the gap' prompts used by the teacher will rely on teachers having a good understanding of their students. Some students will require a detailed prompt, perhaps with an example whereas others may need a simple reminder of what could be improved, perhaps by posing a question for the student to consider. This is why formative assessment is important. It provides teachers with an insight into what students are learning and how they are applying that knowledge. Wiliam (2017, p.10) puts this into perspective:

> Formative assessment is at the heart of good teaching because of one principal about learning and one uncomfortable fact about the world. The principle is that good teaching starts from where learners are, rather than where we would like them to be. The uncomfortable fact about the

> world, is that students do not learn what we teach. Put these two things together and the need for formative assessment is clear. We need to find out what our students have learned before we can teach them anything else.

In the context of GFE post 16 education there are some barriers to be overcome. The structure of many courses mean that students are constantly submitting coursework which are usually summative assessments at the end of a unit or period of teaching and teachers comment that there is little opportunity for formative assessment. What is being overlooked here are all the formative assessments that happens in class daily. For example, students submitting assignment work for review before final submission, teachers use of probing questions, which prompt thinking beyond the initial answer and often require students to explain their understanding. Teaching strategies such as students using mini whiteboards to respond to a question or to display their current level of understanding and online quizzes give teachers immediate feedback on how far a student has travelled on their journey to achieve the learning intention. Group work tasks provide opportunities for peers to work collaboratively on activities and gives teachers time to move around the room to review and extend learning. Black and Wiliam (1998a) advise that teachers need to plan carefully to build these opportunities into their lessons. They suggest tasks must be justified in terms of the planned learning aims and that they only work well if students are active participators whereby the teacher listens to the students to gain insights into their growing understanding of the learning tasks so that this can be built into future planning. By observing and capturing the students' responses, the teacher gains an invaluable insight not only about how each student approaches the learning but also about student misconceptions, and where there are gaps in knowledge for the whole class or individuals. The same authors contend that the value of formative assessment should not be underestimated as without it, the student is not receiving the feedback they need to improve, and the teacher is not receiving the feedback they need from the student so that they can assess the student's current level of understanding and how they can be helped. This returns us to the point made by Hattie and Clarke (2019) that feedback from students to teachers is more influential than teacher to student feedback.

1.9 Context of the Research and the Research Setting

In England there are currently 238 colleges serving approximately 2.2 million students. The college group where this research is set, is a medium-sized GFE college located in southeast England, with a current student population of approximately 7,000. The college was founded in 1962 and in 2008, the site was developed, and a brand-new contemporary building was opened with modern classroom and workshop facilities. Up until 2017, the college was based on a single site with a much smaller student population. In 2017, the college merged with another college in the county creating three campuses, each of which has a unique identity. One campus is in a rural location, a second campus focuses on the arts and performance industries and the third is in a town with a population of 87,967 according to 2021 census data. Each campus offers a variety of vocational and academic courses and GCSE maths and English resit classes. The research for this thesis takes place in the town campus within my own department which includes programmes of vocational study for care professionals. Students are aged from 16-19 years and study courses from Entry Level to Level Three. The 17 students selected for this study are all on the same Level 3 course in Education and Childcare. The 5 teacher participants all teach vocational subjects. Subjects they teach include, Health, Health and Social Care, Childcare and Education, Sport, Public Services, Art and Design. The thesis employs qualitative research methods to explore how teachers and students experience formative assessment in practice. The explanation and justification for the selection of research methodology and methods are discussed extensively in Chapter 3.

Researching formative assessment feedback in the GFE college environment brings its own set of challenges and dilemmas. The introduction to this Chapter explains, that the journey into investigating the enduring educational issue of providing students with feedback that they are willing to act upon is deeply seated in my own frustration of seeing work submitted without any action being taken on the part of the student to address actions within the feedback. Teachers have a professional duty to not only have a full understanding of the theory underpinning formative assessment but to also know how to put this into practice. This is often where there is a gap, and outdated practices and myths about feedback can result in confusing messages for teachers which can make implementing change difficult. For example, grades and scores, are considered by many teachers and educationalists to be feedback, and whether this type of feedback is to be considered as feedback is debated in Chapter 2. However, as discussed earlier in this Chapter, findings from many research studies show that not all feedback is good and there is evidence to support the view that inappropriate or poor-quality feedback has more detrimental effects than good. This can cause conflict as organisations and inspection bodies urge teachers to give grades so that there is something tangible to measure student success and performance against. Feedback that focuses on ego-related statements can be of little value because it serves only to meet the needs of policy makers and other external stakeholders rather than those of the students. This is where formative assessment plays such an important role. As Black and Wiliam (1998a) point out, this is the feature at the heart of effective teaching. Feedback on formative assessment, can be based on the 'closing the gap' strategies put forward by Clarke (2001, 2014) and Nottingham and Nottingham (2017). Teachers may view giving feedback that 'closes the gap' as too time consuming. There is little doubt that good feedback requires skill and effort on the part of the teacher. Clarke (2001, 2014) argues that once the strategies she suggests become familiar to both the teacher and the students the process becomes quicker and easier. All types of feedback require the teacher to invest time and effort. This is where the myth that all feedback is good needs to be given careful and critical consideration. Referring to Gershon's (2017) feedback loop (fig 1), learning may come to an abrupt halt if the feedback given does not allow for the students to act upon it. An example would be a teacher advising a student to be more evaluative in their summaries. The teacher is satisfied that the student has been informed what to do, but how can the student act upon it, if they do not know what evaluation is or how to evaluate?

Finally, from the teacher's perspective, they may be reluctant to hand over valuable lesson time to allow students to reflect and act upon feedback, as this takes time away from the purpose of the new lesson, but in the long term, as Clarke (2001, 2014) asserts the positive impacts on both the teacher and on students learning outweigh the negatives. The issues raised regarding students' attitudes to feedback, stem mainly from their experiences, bearing in mind that they will have encountered a range of educational strategies before starting a post 16 course. Moving students towards more discursive approaches to feedback and more cooperative and collaborative ways of working together with teachers will take time. Whilst this is empowering the students to self-regulate, it does require them to work harder, perhaps harder than they've worked before. Hattie (2009, p.12) points out, when this occurs, the working relationship between students and teachers' blossoms.

1.10 Approaches to Feedback

In summary, this Chapter introduces some of the complexities of giving and receiving feedback from the student and teacher perspectives in a GFE college. Several problems and challenges faced by teachers teaching in post 16 educational settings are identified in relation to providing feedback that will be valuable and of use to the student. These issues and challenges are not simple or easy to surmount and rely heavily on a willingness to change, both on the part of the student and the teacher. It is of paramount importance therefore that teachers are prepared to effect change as the rewards to both the student and the teacher can be significant. Failing to do so may be highly detrimental to students' achievement and emotional well-being, resulting, in feedback which is rejected, resented, or not responded to. Such feedback is of little value and in the long run a waste of time and money. The issues identified in this Chapter point to several interventions that have the potential to effect a positive change, based on literature and research in a GFE setting. The main themes that have evolved in this chapter are:

1.10 (1) Actively involving students in the feedback process

Students need to be given time and space to reflect and act upon feedback. Clarke (2001, 2014) noted that feedback is unlikely to be acted upon if students are not given the time and space to make improvements based on the feedback.

1.10 (2) Timing of feedback

According to Clarke (2001, 2014) timing should be carefully considered so that it is neither too early nor too late.

1.10 (3) Closing the gap

The model put forward by Clarke (2001, 2014) provides useful strategies that teachers can use to 'close the gap' thus enabling students to see clearly what they are achieving and what's next.

1.10 (4) Building collaborative relationships

Using Coffield's (2009) analogy of the tandem bike, feedback can be used to build a collaborative relationship between the teacher and the student so that the student understands that they are expected to act upon the feedback.

1.10 (5) Formative assessment

Black and Wiliam (1998a) urge teachers to give more attention to the value of formative assessment and not only the giving of feedback on formative assessments but also on teachers listening to feedback from students. In doing this, the teacher gains a better understanding of the student's current level of level of knowledge, what their next steps are, and misconceptions can be addressed immediately.

1.10 (6) Grading and scoring

As Wiliam (2018b) reminds us, formative assessments should not be awarded a grade or score**.** He argues that grades and scores hinder students' engagement with other forms of feedback and serve no purpose in developing students thinking skills or ability to self-regulate.

This Chapter reviews the context of the practice of formative assessment within one GFE college setting and the themes that emerge from the initial investigation. This leads to the development of several research questions that this thesis seeks to answer.

1.11 Research Questions

1.11 (1) Main research question

To what extent is feedback on formative assessments read/listened to and acted upon by students and how could this be improved in practice?

1.11 (2) Supplementary questions

How can we help students to make more effective use of formative assessment feedback to improve learning and achievement?

To what extent are the strategies suggested by Clarke (2001,2014) useful in lessening teacher apathy towards feedback?

What do teachers say/do about the provision of feedback to their students?

What do students say/do with feedback they receive from their tutors?

To what extent do Awarding Body (AB) policies influence tutors' approach to providing feedback?

1.12 Conclusion

In summary, this Chapter establishes that formative assessments can be defined as the frequent and regular activities undertaken by students in or out of class in relation to learning criteria set by teachers, which is usually in accordance with the syllabus provided by Awarding Bodies. The assessment can only be considered as formative if the student receives feedback on their performance and if the feedback is used by the student to make improvements to their work. However, the Chapter also touches upon the argument that not all feedback is good, and this will be investigated in detail in the Chapters that follow. The Chapter looks particularly to the work of Clarke (2001, 2014) and how her advice on feedback strategies has the potential to work in a GFE college environment. However, careful deliberation will need to be given to the use of these strategies in a GFE college environment as the work of Clarke relates mainly to primary school aged children. It will be important as the research progresses not to make the generalisation that what works with children aged 5 to 11 years, will work with students aged 16 to 18 years.

This Chapter has introduced some of the key literature and Chapter 2 examines this in greater detail, exploring further some of the myths of feedback and strategies and approaches that have proven to work in practice.

CHAPTER 2
LITRATURE REVIEW

2.1 Introduction

The impetus for this research study originates in the enduring educational issue of students failing to respond to teacher feedback to raise achievement. This topic has been the subject of many research studies and there is a wide body of literature that investigates this subject in detail. During my thirteen years of teaching in a GFE college environment, I have used a variety of approaches to giving both verbal and written feedback, in the moment and post lesson with varying degrees of success. The one thing that I keep returning to, is that regardless of how much time and effort I put into giving feedback, students often do not read or act upon the advice given. This problem is not uncommon. Many of my fellow teachers complain that their students rarely act upon feedback given. This is not what I expected when I started my teaching career as my goal is to build positive relationships with my students and create an environment which inspires them to learn and to develop autonomy in their learning. I spend a lot of time considering the feedback I give and find myself disappointed when students do not act upon it. A consequence of this is that students lose interest and motivation when their grades do not improve in future work. This leads to a downward spiral whereby the classroom environment is no longer about the joy of learning but rather doing the minimum amount of work required to achieve a pass. Of course, this is not the case for all students in all classrooms, but it did make me question my practice and consider what I need to change. My research journey starts with the work of Black and Wiliam (1998), Clarke (2001, 2014), Hattie (1992, 2009), Hattie and Clarke (2019), and Wiliam (2018). Each of these authors discuss the power of feedback and formative assessment strategies and their potential to raise achievement in the classroom. This body of research presents both a dilemma and a question. If feedback is so powerful, then why is it that students in my classroom are not making the levels of progress expected? Of course, there are many factors apart from the type and quality of feedback that influence teaching and learning, and it would be naive to think that feedback is some kind of 'magic bullet' capable of addressing every problem that every student may encounter during their learning. Authors such as Black and Wiliam (1998a) in their report '*Inside the Black Box*' make a compelling case for the use of formative assessment. However, the issue is not just about getting formative assessment right but how formative assessment can go wrong and what to do about it when it does. I know from my classroom experience and those of my colleagues that this is a dilemma faced on a day-to-day basis in our practice. Classrooms are complex environments in which different aspects of teaching, learning and assessment are constantly interplaying. This dynamic interplay includes peer and teacher-student relationships and the power that each exerts over the other, experiences of previous education settings, combined with the need to balance the emotional well-being of each student. Psychological factors that influence both the giving and receiving of feedback have the potential to bring about intense emotion and stress in relation to the ways in which feedback is received and acted upon. One aspect is mindset of the student as in the work of Dweck (2006, 2017), which was touched upon briefly in Chapter 1. Dweck suggests that there are two mindsets or beliefs that people hold about their ability to complete challenging tasks. The 'fixed' mindset is the belief that intelligence is fixed from birth and how well a person performs is predetermined by their genetic makeup, whereas those with a 'growth mindset' believe that their skills and knowledge can be nurtured by engaging in challenging tasks. Individuals with a growth mindset see failure as an opportunity to learn rather than an obstacle that cannot be overcome. Butler (1987, 1988) suggests feedback that offers praise or scores rather than anything tangible about the students work has little impact on raising achievement. Whereas feedback that highlights performance compared to criteria motivates students to make improvements. Motivation is complex and the reasons why individuals are driven to do something varies considerably. Ryan & Deci (2000) seek to distinguish between different types of motivation providing an explanation of intrinsic and extrinsic motivations. Although, as in the case of Butler's research the extrinsic motivator of praise or scores is seen as poor to the alternative of intrinsically motivating students to make improvements to their work, Ryan and Deci (2000a&b) suggest that not all types of extrinsic motivation fail to achieve the desired results. In developing their cognitive evaluation theory described as a sub theory of self-determination theory Ryan and Deci (2000b) argue rewards that bring forward feelings of competence during a task can boost intrinsic motivation but only if accompanied by "a sense of self-autonomy" (p.58). The issue is that when a reward is given it is the teacher that has the balance of power as they are in control of the reward and decide if one is to be given or not. The influence of Butler's research is considered in the literature review in the context of its potential impact on this research study. In contrast, researchers such as Kluger and DeNisi (1996) and Hattie (2009) provide insights into the influence of different types of feedback using changes in effect size as a benchmark to measure the impact on student achievement.

The effect size of different educational interventions, such as homework, learning styles, mentoring, feedback and many more is measured by comparing movement in student progress and achievement following an intervention. Effect size is used by many researchers to compare different strategies by measuring learning gains which are recorded on a scale. As discussed in Chapter 1 an effect size of 0.4 is judged as average and therefore any approach scoring above this is considered significant. The impact of feedback is one of the highest influences with effect sizes being measured as between 0.4 and 0.7 and this is explored in depth in this literature review, through the meta-analyses conducted by Hattie (1992, 2009), and Kluger and DeNisi (1996). These studies are notable as the meta-analyses they present involves a lengthy process of synthesizing results from numerous research studies to shed light on not only the potential influence of feedback on learning gains, but also on the types of feedback that are most effective. As already seen from the work of Kluger and DeNisi (1996), not all feedback is good, and in some cases, feedback given to students has an adverse effect whereby students regress in their learning. This takes the literature review in the direction of exploring the differing opinions amongst researchers and authors of what is good feedback and what is poor feedback. Part of the problem lies with differing definitions of feedback and the confusion between formative and summative assessments. Each researcher and author have their own opinion, and it is important to decide on a definition that best suits the GFE college environment in which this research is set. Sadler (1989, p.120) suggests that "formative assessment is concerned with how judgements about the quality of students responses (performances, pieces, or work) can be used to shape and improve the student's competence by short-circuiting the randomness and inefficiency of trail-and-error learning". He goes on to explain that "*feedback* is a key element in formative assessment, and it is usually defined in terms of information about how successfully something has been done" (Sadler, 1989, p.120). Hattie and Timperley (2007, p.81) provide a slightly more detailed definition, characterising feedback "as information provided by an agent (e.g., teacher, peer, book, parent, self, experience) regarding aspects of one's performance or understanding". These definitions of formative assessment and feedback fit with the types of assessment that students complete whilst studying the vocational courses investigated in this study. Students' complete assignment tasks, typically in the format of an essay at the end of a topic or unit. These are usually broken down into several small assessment tasks leading to the award of a mixture of grades from pass, merit, to distinction measured against a range of assessment criteria. It could be argued that these are summative assessments as students complete these at the end of a period of learning and they test the student's knowledge of what has been learned in the preceding weeks. However, students can submit this work more than once. It is handed in for review by the teacher, who gives a provisional grade, verbal and/or written feedback, and the student is encouraged to make improvements and resubmit the work. The feedback not only informs the student about how to improve that piece of work but how the skills and knowledge they have used in completing this can be applied to future assignments. These aspects of assessment therefore fit Sadler's definition of formative assessment. Although it is helpful to understand the differing definitions of summative and formative assessment Black and Wiliam (2018b, p.2) argue that both should be viewed in an integrated way suggesting that "while it is possible for researchers to make clear theoretical distinctions between formative and summative assessment aspects of assessment, for teachers such distinctions are at best unhelpful, and may even be counter-productive". In the context of this research, this raises a valuable point because, some teachers argue that there is no time for formative assessments when there are so many summative assessments to mark. What is being overlooked is the natural overlap that exists between formative and summative assessment and the opportunity that the in and out of class activities that students engage in frequently and regularly creates in relation to providing feedback that is useful and beneficial to the student. Black and Wiliam (2018b) go on to point out that there are of course dangers of combining formative and summative assessment under one term 'assessment' as there is a risk that formative assessment theory becomes diluted and weak. The main point is perhaps not to become too fixated on whether the assessment tasks completed in class or as homework are summative or formative but on the quality of the feedback that is given to the student.

Clarke (2001, 2014) and others suggest that feedback rarely focuses the students on what they need to do to 'close the gap' between their current level of learning and the desired level of learning. The literature review explores this in detail as this an area where there is a considerable degree of consensus among scholars and researchers in the field of education.

Formative assessment strategies intended to 'close the gap' as discussed by Clarke (2001, 2014), Black and Wiliam (1998a), Hattie (2009), Hattie and Clarke (2019), Nottingham and Nottingham (2017), Ramaprasad (1983), Sadler (1989) and Wiliam (2018), to name but a few, all point towards three key ingredients that successful feedback should include.

1) The student needs to know the purpose (goal) of the task,

2) The student needs to know the progress they are making compared to the goal,

3) The student needs to know what specific actions are required to close the gap.

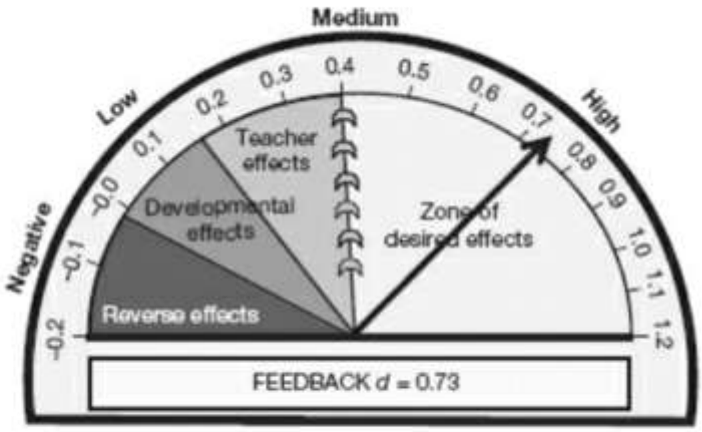
These elements are intertwined with learning intentions, success criteria and formative assessment and the relationship and interdependency are analysed in detail in this literature review. Ideas and strategies to 'close the gap' put forward by many of the authors already mentioned, such as suggestions for written comments (Clarke 2001, 2014, Nottingham and Nottingham, 2017), providing time and space for students to respond to feedback in class (Clarke 2001. 2014, Gershon 2017) and the effects of grades and scoring (Black and Wiliam 1998, Butler 1987, 1988, Kohn 1999, 2011, and Wiliam, 2018) are explored in detail in this Chapter, whilst subjects such as self-assessment, peer assessment and teachers responding to student feedback are commented upon more briefly. It is important to note at this point, that it is not possible in this thesis to review every stratagem, and some have been discounted, not due to lack of credibility or value, but because they require and deserve much more individual attention than this thesis allows.

2.2 Evidence from Meta-Analyses

In their report, *"Inside the black box"*, Black and Wiliam (1998a) review more than 250 research studies looking at the impact of feedback in a quest to answer three questions: "is there evidence that improving formative assessment raises standards? Is there evidence that there is room for improvement? Is there evidence about how to improve formative assessment?" (Black and Wiliam, 1998, p.4). From their extensive research the resounding answer to all these questions is 'yes' and there is further evidence to support this, such as Hattie (1992, 2009), Kluger and DeNisi (1996), and Lysakowski and Walberg (1982). It is, therefore, somewhat surprising that twenty-five years after Black and Wiliams's report that researchers, and educationalists are still asking the same questions. This is an important point to consider because I can see from my own review of student feedback (both verbal in the classroom and post lesson written) that feedback frequently lacks the fundamental elements required to 'close the gap'. Hattie (1992), a pioneer of meta-analysis, concluded from his review of over 30 years of educational research that feedback is one of the most powerful influencers on raising student achievement, suggesting an effect size of 0.65, which is powerful considering the average effect size for educational interventions is 0.4. However, as Kluger and DeNisi (1996) emphasise in their meta-analyses on the effects of feedback interventions on performance, the type of feedback plays a major role in the effect on student performance being positive or negative. They looked in detail at over 300 different studies, discounting many on the basis that the quality was not sufficient to be included in the final analysis. Others were disregarded due to the low level of participants (less than 10), where feedback was confused with other teaching interventions, where there were not adequate controls and where the effect size was unclear. This left them with 131 reports, involving 12,652 participants and 607 effect sizes, giving an average effect size of 0.4. The interesting fact they found in the study, is that not all effects were positive. In fact, in several studies the effects of feedback were negative (almost two in every five), thus concluding feedback that was intended to improve performance had detrimental effects and perhaps the students would have performed better if no feedback was given. Wiliam (2018b, p. 130-131), suggests that there are two main reasons why feedback can fail to have the desired effect. 'The first is that what really matters with feedback is how students react to it, and the second is that much feedback fails to consider how our minds (and particularly our memories) work'. In terms of how students react to feedback, Kluger and DeNisi (1996) suggest there are four broad classes of response. Firstly, where commitment is high, the goal is clear and individuals believe in eventual success, then individuals will attempt to reach the goal. Secondly to abandon the goal completely, particularly if the individual does not feel they can reach the goal. Thirdly individuals may choose to change the goal rather than abandoning it completely which may lead to them raising the goal if they are successful or finally to simply deny that the feedback gap exists. The teacher's purpose is to provide feedback that inspires students to believe they can reach the goal and the students have a clear understanding of how to do this. However, even when the content of the feedback is good, this is not necessarily in the teacher's control. How a student responds to feedback has many variables and will be influenced by factors in the environment, such as noise level and privacy. The timing of the feedback must be at the right moment, if feedback comes too soon, then this may interrupt the students thinking, too late and the learning may have been forgotten. Psychological factors such as students' confidence and self-efficacy are powerful influences on student learning. Dweck (2006, 2017) suggests that a student's mindset can dominate their thinking. A student with a fixed mindset, believing their intelligence is fixed (regardless of whether this be at a low or high level) will find engaging with feedback challenging as they will see the feedback simply as affirmation of their ability. For example, a student who always gets an 'A' and is frequently praised for being a great student may not engage with or seek advice on how to improve. Whereas a student who believes they will never achieve anything above a 'D', may see feedback as a threat and a confirmation of their inability to improve. In both cases the impact is negative. Being motivated to achieve is multifaceted and relies on students being interested in achieving the goal. This interest alters depending on how invested the student is with the task. The interplay between Intrinsic and extrinsic motivation is interesting because the desirable outcome is for students to want to complete the task for their own personal satisfaction rather than to be motivated by the possibility of external rewards (or punishments). Ryan and Deci's (2000b) self-determination theory discusses the relationship between motivation and autonomy suggesting the level of control exerted by the teacher in the classroom will have a direct impact on student's motivation to complete tasks.

Referring to the work of Benware & Deci (1984) and Grolnick & Ryan (1987), Ryan and Deci (2000b) note that when control is high, students learn less and lose initiative, especially during difficult and challenging tasks requiring creative and critical thinking Where autonomy is high it is more likely an individual will strive to achieve the goal. This presents an interesting concept to teachers as control in a classroom is generally in the hands of the teacher. How much or how little control is exerted over students will depend on the teachers own pedagogical practices. A teacher taking a behaviourist approach, a theory popularised in the 1940's may believe that motivation derives from the promise of extrinsic incentives such as gaining a reward. Conversely a student that is threatened with a low grade, a punishment or a phone call to parents may be extrinsically motivated to complete a task, but they would not be fully invested in the task, thus the opportunity for learning is diminished. A student with high levels of intrinsic motivation will be motivated to complete the task for their own personal satisfaction and perhaps because they find it fun and interesting to do so. The challenge for the teacher is to consider how control can be passed to the students balancing this with the need for them to complete tasks to the required standard. Developing autonomous learners is probably the most desired outcome for any teacher and given the power of feedback as explored in the next paragraph, it is vital that teachers consider this aspect of their pedagogical practice.

Hattie's (2009) synthesis of over 800 meta-analyses relating to achievement, provides further insights into the power of feedback. His research, (which included his earlier meta-analysis (1992)) examined 23 meta-analyses, 1287 studies, involving 67,931 participants and 2050 effect sizes and surmised that the average effect size of feedback is 0.7, as detailed in the barometer below (Fig 2). To put this into context, "an effect size of 0.4 would mean that the average pupil involved in an innovation would record the same achievement as a pupil in the top 35% of those not involved. An effect size gain of 0.7 in the recent comparative studies in mathematics would have increased the score of a nation in the middle of the pack of 41 countries to one of the top five" (Black and Wiliam, 1998a, p.4).



KEY	
Standard error	0.061 (Medium)
Rank	10th
Number of meta-analyses	23
Number of studies	1,287
Number of effects	2,050
Number of people (10)	67,931

Fig 2: Barometer showing the effect size of feedback (Hattie, 2009, p.173)

The studies by Hattie (2009) and Kluger and DeNisi (1996) go some way to support the view that feedback to students about their learning can produce sizeable gains in their achievement. Of, course, as the Kluger and DeNisi study shows, whilst there is no doubt that this is the case, the gains achieved are reliant on the quality of the feedback, as not all feedback is beneficial or helpful and in fact can be detrimental to learning. A message that arises from these studies is that the most effective feedback is one which avoids ego-related comments and emphasises the students' progress and their next steps.

2.3 Defining 'Closing the Gap'

I first encountered the phrase 'closing the gap' in Shirley Clarke's book, *Unlocking Formative Assessment* (2001). Drawing on Sadler's (1989) model of three conditions for effective feedback, Clarke argues, 'we need to be giving feedback about the learning intention: indicating success and improvement needs' (Clarke, 2001, p.57). I found this to be a thread across a range of well-respected authors and researchers in the field of formative assessment. Each of them discuss the merits of this approach and the ways it can be implemented. Their different approaches to defining and interpreting the conditions required to 'close the gap' are compared chronologically in table (fig 3) and there is commonality and a consensus of agreement as to what is required to 'close the gap'. Ramaprasad (1983, p.5) makes an interesting point about the definition of feedback, stating that, "information on the gap when used to alter the gap (most probably to decrease the gap) becomes feedback. If the information on the gap is merely stored without being unutilized to alter the gap, it is not feedback". This is important as grades, or scores are predominately used in the GFE college environment where the research is set to inform students of where they are in their learning. This simply furnishes students with information as to how many maths problems they have solved correctly or that the teacher considers a piece of writing to be worthy of a 'B' grade. This does not provide the student with any information about the learning that has been achieved, how it has been achieved or what the student needs to do to improve. Ramaprasad's (1983) definition goes further by asserting this type of feedback does not fulfil the criterion of closing the gap, as grades and scores do not provide the reader with any meaningful information upon which to act. Grades or scores should, therefore, not be considered as formative assessment feedback. This theme will be explored in greater detail later in this Chapter.

Ramaprasad, A. (1983, p.5)	**Sadler, D.R. (1989, p.121)**	**Clarke, S. (2001, p.56)**	**Hattie and Timperley (2007, p. 86)**	**Nottingham and Nottingham (2017, p.10)**

Ramaprasad's definition of feedback emphasises three points: 1. 'The focus of the feedback may be any system parameter: input, process, or output. 2. The necessary conditions for feedback are the existence of data on the reference level of the parameter, data on actual level of the parameter, and a mechanism for comparing the two to generate information about the gap between the two levels. 3.The information on the gap between the actual level and reference level is feedback only when it is used to alter the gap'.	'The learner has to 1.Possess a concept of the *standard* (or goal, or reference level) being aimed for. 2.Compare the *actual* (or current) *level of performance* with the standard. 3.Engage in appropriate *action* which leads to some closure of the gap'.	'The child must 1.Know the **purpose** of the task. 2.Know how far they have achieved this. 3.Know how to move closer to the desired goal, or how to '**close the gap'** between what they have done and what they could do'.	'Effective feedback must answer three major questions asked by a teacher and/or by a student. 1.Where am I going? (What are my goals?) 2.How am I going? (What progress has is being made towards the goal?) 3.Where to next? (What activities need to be undertaken to make progress better?)	'Feedback should help your students to do the following: 1.Understand the goal or learning intention. 2.Know where they are in relation to the goal. 3.Realise what they need to do to bridge the gap between their current position and the goal'. Similarly, to Hattie and Timperley's (2007) model of feedback, Nottingham and Nottingham (2017) suggest that there are three questions that should be asked: 1. What am I trying to achieve? 2. How much progress have I made so far? 3. What can I do next?

Fig 3: Chronological comparison of theories to 'close to gap'

Sadler (1989) builds on Ramaprasad's original 1983 definition of the gap between the reference level and the actual level, arguing that if the gap is too wide then students will find it difficult to take remedial action to close the gap. He also suggests that students need to be active participants in closing the gap. It is not simply a matter of the teacher prescribing what needs to be done, but essentially, the student developing skills in evaluating their own work so that improvements can be made throughout the learning process. Moving students towards being self-evaluative is not easy but, as Sadler (1989, p. 143) points out, "it is insufficient for students to rely upon evaluative judgements made by the teacher". Black and Wiliam (1998a) place emphasis on this by arguing that to improve learning through assessment students need to be actively involved in their own learning and this requires a willingness for the students to engage actively in the assessment process. When students generate their own ideas about their learning progress during a task or activity this facilitates dialogue between the teacher and student as together, they can diagnose and discuss the feedback from both the teacher's perspective and the student's perspective. There will inevitably be similarities and differences in their opinions but providing there is a balance in power between the student and teacher, the resulting debate should be healthy and lead to increased motivation and engagement which is ultimately beneficial to learning. The teacher will learn a lot about the students understanding of the task and how they construct their learning, and students will learn how to interpret and respond to feedback, rather than seeing it as a threat. Hattie and Clarke (2019, p.5) suggest the teachers should not focus too much on the quantity of feedback as what is more important is, "that students are taught to receive, interpret and use feedback,… as feedback given but not heard is of little use". Being able to interpret, self-evaluate, respond to, and use feedback relies on students having a sound grasp of the purpose of the learning intention and the success criteria (the goal). Criteria that are vague and poorly constructed will not only cause confusion and frustration but also make the giving of any helpful feedback to facilitate closing the gap impossible. As Sadler (1989) mentions, it is only when students accept the responsibility for the goal/s that they can progress in their performance. If the goal is not clear, then it will be very difficult for students to do this and lead the students perhaps to reject, change, or not trust the goal/s.

2.4 Learning Intentions and Success Criteria (Goals)

In their meta-analysis Kluger and DeNisi (1996) established that not all feedback is positive, finding many incidences where feedback had negative impacts and they sought to examine the reasons for this. From their analysis of a large array of studies, they found that goal setting theory plays a crucial role as the feedback given about whether the goal has not been achieved, has been achieved or surpassed will elicit different responses. Kluger and DeNisi (1996) assert that researchers in the field of goal setting motivation theory such as Loche and Lathan (1990) who investigated the relationship between goals and performance demonstrate that goal interventions can lead to higher performance. This is more likely to occur when the goals are learning (task) focussed as opposed to performance (ego) focussed. In educational settings, goals are termed as learning intentions or learning outcomes and success criteria. Hattie (2009, p. 162) describes learning intentions as “what we want students to learn in terms of skills, knowledge, attributes and values with any particular unit or lesson”. This is the standard by which teachers will make judgements about the students work and how far the students have progressed in achieving the learning, so it is imperative that this is at the centre of a teachers mind when providing feedback. Unfortunately, this is not always the case. Clarke (2001) argues that often feedback focusses on other features that are not relevant to the task such as presentation, spelling, punctuation, and grammar, quantity, and effort. Clarke suggests that when these secondary features are given attention, the learning is no longer about the original learning intention, but more about remembering to use a ruler to draw a straight line, use capital letters correctly and put a full stop at the end of a sentence. This is a challenge for teachers as organisational policy often directs teachers to highlight spelling and grammatical errors on students work, but as Shirley Clarke suggests, it is still possible to do this in ways that do not draw the attention away from the learning intention. For example, if a student has spelt something incorrectly, discuss first the features of the work that relate to the learning intention: ‘you have described three good reasons why it is important to ………can you now add in some detail about…….and by the way the ‘i’ and ‘e’ are the wrong way round in the word receive.’ This sends a clear message to the students, that what is most important is the work in relation to the learning intention, but still addresses the spelling error.

The learning intention is the ‘big picture’ of what the teacher wants the students to learn in the lesson, whereas the success criteria lists what students should demonstrate to show they have accomplished the learning intention (Nottingham and Nottingham 2017). These provide students with the knowledge of how to complete the task and are differentiated to provide meaningful and challenging experiences to progress learning. Hattie (2009) gives an example of learning intention of successfully negotiating a 60-foot cliff by abseiling or repelling. There are several steps that need to be considered to achieve this, such as the student demonstrating that they can correctly use the safety equipment. The measure of success will be whether the student has been successful in negotiating the cliff, but the steps leading up to this need to be given attention first. The steps, however, may be different depending on the students past learning. A student who has successfully negotiated a similar climbing exercise, may just need a quick reminder on the use of the safety equipment and can be left to do this part of the task independently, whereas others with no experience will need demonstration and assistance. Similarly, Wiliam (2018) describes how sports coaches break down learning intentions into individual success criteria to help athletes improve their performance. He says, it is pointless telling an athlete that they need to raise their batting or catching average in baseball to a certain level without breaking this down into the skills that need developing, such as body positioning, and arm movement. Breaking down learning activities into a step-by-step process with each activity building on the one before is a concept that has been a subject of numerous psychological studies for many years with some theorists suggesting that cognitive development is based on brain maturation. As a child grows so does their ability to learn new things. Piaget (1936) theorised that cognitive development is sequential arguing that it occurs in stages (Piaget and Inhelder, 1973). Piaget suggested four distinct stages linked to age and brain maturation proposing that learning initially occurs through observation of patterns in a child's environment which enables them to come to broad conclusions about the world around them. This requires a constant process of assimilating and accommodating new information until they reach an age where they can think more abstractly, thus developing their own ideas about the world around them (Piaget and Inhelder, 1973). This takes the child on a journey of thinking from the inductive to the deductive. In proposing the Spiral Curriculum, Bruner (1960) opposed Piaget's view that learning is fixed by age. He suggested that a child of any age is capable of learning complex information and that activities should be structured at levels of gradually increasing difficultly. Although there are differences in their views, Bruner argued that schools waste time trying to match the complexity of subject material to a child's cognitive stage of development. This means students are held back by teachers as certain topics are deemed too difficult to understand and must be taught when the teacher believes the child has reached the appropriate stage of cognitive maturity. This is relevant to formative assessment as scaffolding feedback tailored to students' current level of understanding is essential if the student is to be willing and able to act upon the feedback. However, it is also important that teachers ‘teach to the top’ ensuring that all students receive the same message regarding their capability to achieve challenging tasks. If a student feels that the teacher believes their capability to less than their peers, this will only have a detrimental effect on the student’s self-efficacy and learning potential. The key is for the teacher to gain an in-depth understanding of the prompts and scaffolding required for each student to achieve the learning task rather than ‘dumbing down’ the task. Additionally, If the teacher takes the time to discuss the learning goals with the students, this provides a level of flexibility in which the student can set themselves goals within the criteria (Marzano, 2000).

As with formative assessment, there is no shortage of advice or theories available to teachers on the structure of learning goals. Bloom’s Taxonomy (1956, 2000) is a popular choice amongst teachers in the GFE college where this research is set and although he provides a useful structure, it is not without criticism. Bloom provides a list of verbs divided into hierarchical levels that takes a student on a journey from basic retrieval of knowledge through to more complex cognitive skills of analysing, evaluating, and creating knowledge (*Fig 4)*. The danger here, is that by viewing learning as a hierarchy it is easy to assume that students are only capable of achieving a certain level and they may never be encouraged to synthesise or apply their knowledge. Think of this in terms of the abseiling example explained above. The student who has never abseiled before may be limited to putting on and taking off the safety equipment without getting the opportunity to apply the knowledge by abseiling the cliff. Whilst it is unlikely that this would be the outcome in this example, in a classroom environment, I have seen this in practice with students being divided into groups with only those being deemed as high performers being given challenging and interesting assessment tasks. This in turn limits the feedback the student receives, so they are always at a disadvantage to their higher achieving peers as they are never expected to achieve tasks that require higher cognitive demand.

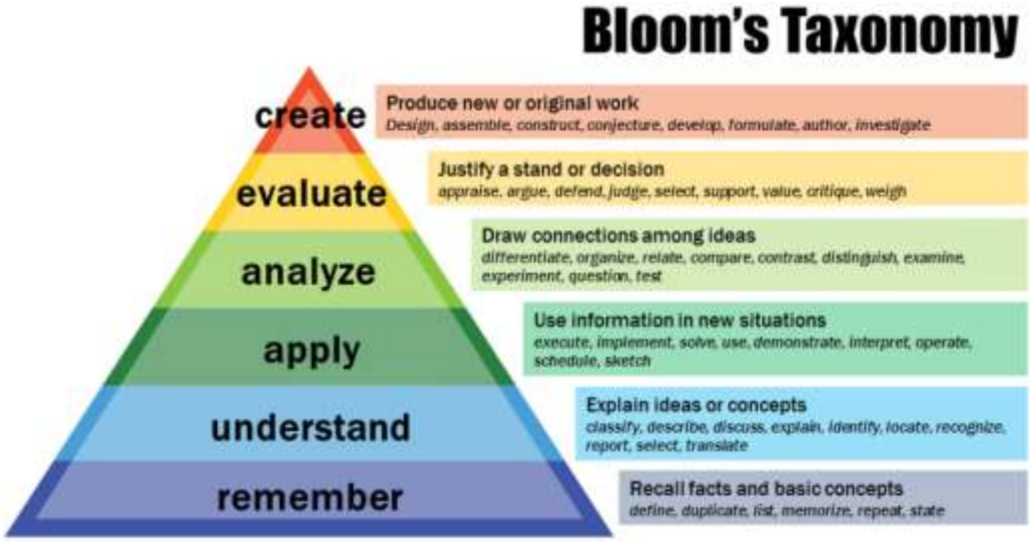


Fig 4: Image courtesy of Patricia Armstrong (2010). Vanderbilt University for Teaching.

The new taxonomy proposed by Marzano and Kendall (2000), takes on board the criticism of Bloom's model as being too linear in nature by reframing learning activities into levels of processing knowledge. Bloom's taxonomy is criticised for its assumption that certain activities are deemed to be more difficult than others. What Bloom's model fails to acknowledge is that 'even the most complex of processes can be learned at the level at which it is performed with little or no conscious effort' (Marzano and Kendall, 2007, p.10). In proposing their new taxonomy, Marzano and Kendall's model extends learning beyond cognitive activities of mental processing by including two further domains of knowledge, information, and psychomotor procedures. Each domain is organised into six levels of processing that are in turn classified into three systems. This multidimensional approach acknowledges that learning is not linear and that all individuals can engage in complex tasks. Similarly, The Structure of Observed Learning Outcome (SOLO) taxonomy model proposed by Biggs and Collis (1982) also acknowledges that learning is not linear but circular with students moving in and out of the stages as they tackle new complex tasks. As students' familiarity with tasks increases, then the more skilled they become at replicating this with new challenging tasks. Students are constantly moving within levels of learning rather than being restricted by a taxonomy that suggests that certain activities such as evaluation are more difficult than synthesising information. In taking this approach to learning outcomes, teachers are adopting the concept that all students can achieve challenging tasks and this in turn leads to formative assessments that are both interesting and challenging. The skill of the teacher is to structure feedback in ways appropriate to the individual needs of each student. This enables students to receive the input required from the teacher to achieve and improve upon their formative assessments.

As discussed above, learning intentions and success criteria provide the measure and language for which feedback can be given. For example, a group of students being asked to draw a face as a learning intention will be able to measure success according to the criteria of features to include, such as two eyes, both the same size and a certain distance apart, a nose, an ear halfway down on each side of the face etc... On critically reviewing their work, students can see if they have met the success criteria and adjust along the way. The teacher can provide a differentiated 'scaffold' response by prompting the students thinking. For example, providing a mirror for the student to compare the distance between their own eyes and that on their drawing or asking a question about one of the features. Carefully constructed questions and conversation are key to promoting students thinking at a deeper level and provides the teacher with insights into the students thought processes and how they learn. This feedback from students to teachers is invaluable, a point that Hattie and Clarke (2019) emphasise, as it is only by truly being able to see things through our students' eyes that teachers can comprehend what is being learnt and how. This in turn provides the teacher with a base from which they can construct their feedback and plan future learning experiences and activities. The focus of the feedback is crucially important and requires the teacher to have a sound grasp of the learning goals set for the task or activity and to know how to compare this to the work the student has completed.

2.5 'Closing the Gap' - Comparing the Actual Level of Performance with the Goal/s

Earlier in this literature review, two types of feedback are discussed. Feedback that is 'ego-related' and feedback that is 'task-related'. Research evidence indicates that when feedback is 'ego related' it serves little purpose and can have negative effects, as Kluger and DeNisi (1996) find in their meta-analysis. The most well-known studies relating to the effects of task-involving and ego involving feedback are those undertaken by Ruth Butler (1987, 1988). Butler (1988) split 132 eleven-year-olds into three groups. The groups had the same task, but each group was given a different type of feedback. The first received comments only, the second group were given a grade by scoring the work on a scale from 40-99, the third a grade and comment. Following the feedback, the students completed a second task and Butler compared their performance from the first to the second lesson. She found that those given grades only, made no progress, those who had received comments only, on average scored thirty percent higher. The most surprising finding was that the students who had received both grades and scores did no better than the students receiving grades alone. Butler concluded that grades encouraged students to develop ego-related mindsets. For students scoring high grades, they saw no need to read the written comments and those with low grades, saw the teachers comments just as an attempt to make them feel better. The giving of a grade indicated to the students that the learning was over and as Hattie and Clarke (2019) argue, the giving of a grade is often seen as a summative statement and that grades must not be confused with feedback. Butler (1987) in her study of 200 fifth and sixth grade students with high or low achievement found that ego related feedback (grades/praise) and task related feedback (comments on performance) play a significant role in intrinsic motivation and how students respond to different types of feedback. In this study, Butler divided the students into four groups; One group was awarded numerical grades, another given individual comments, a third praise and a fourth received no feedback. Butler found that the groups given written praise and grades made no more progress than those who received no feedback, whereas those receiving comments improved. Butler concluded from the students answers to a questionnaire about their attitudes to the feedback they had received that those receiving comments were far more invested in improving their work than those who had received grades or praise. The findings in these studies are supported by similar studies, such as those undertaken by Elawar and Corno (1985) and Butler and Nisan (1986). Whilst praise is not a tangible reward, the meta-analysis conducted by Deci, Koestner & Ryan (1999) on the effects of extrinsic rewards on intrinsic motivation strengthens the view that praise has little value as feedback as it does not contain any information about the students' performance in relation to the task. The issue is that grades and/or the praise play to the student's ego, rather than the learning goal of the task, and therefore, does not provide students with any incentive or information that is useful for them to make improvements. Extrinsic motivators such as labelling students through the giving of a grade or praise simply reaffirms to the student their expectations of themselves rather than believing that intelligence is expandable. Whilst grades, scores and praise may provide extrinsic motivation they have little positive impact on intrinsic motivation. Ryan and Deci (2000) conclude that three human conditions must be met to promote the development of intrinsic motivation, "competence, autonomy, and relatedness" (p.12). Students need to know that they have the power to control their own goals and future decisions as this leads to higher engagement in class tasks and activities. This returns to the point made earlier in this research study, about the balance of power that exists between the teacher and the student. When a teacher has too much control of the learning experiences in the classroom, the students become passive rather than active learners. A skilled teacher will always be looking for ways to hand over control of the learning to their students so that the students develop the ability to self-regulate and set their own goals. When this is a feature of the classroom, it is likely that students will develop a growth mindset. As discussed above, in her work on mindset, Dweck (2006, 2017) explains the difference between a growth and fixed mindset, describing a fixed mindset as the belief that intelligence is fixed and cannot be changed, whereas students with a growth mindset believe that with effort and work they can improve their abilities and skills. In relation to the feedback given to students in Butler's (1987,1988) studies, it can be argued that those receiving grades or praise had no incentive to challenge themselves to improve, whereas those who received comments only were motivated to improve their performance.

Hattie and Timperley (2007, p.86) in their report on the power of feedback claim that "the main purpose of feedback is to reduce discrepancies between current understandings and performance and a goal". As grades and praise do not serve this purpose, then commenting on the progress students make in their work either verbally, in writing, in the moment and post lesson appears to be the most effective form of feedback to raise performance. However, the problem here is the quality of the feedback. Hattie and Timperley (2007, p.87) suggest that to address the gap between a student's current level of skill and/or knowledge and the desired level, there are three questions that need to be satisfied as detailed in fig 3. They suggest that each feedback question works at four levels. Level one being the task level where feedback may direct the student to include more or additional information. The second level is the process level which concerns the student's thought processes and how they have approached a task. The third level is self-regulation whereby the student is encouraged to reflect on their work and consider how it can be developed. The final level is the self-level, which Hattie and Timperley argue is usually positive but not related to the task. The questions and levels provide teachers with logical and useful framework from which to construct feedback to 'close the gap', but there are more things to consider. Kluger and DeNisi's (1996) research shows, there can be potentially multiple ways in which a student will respond to the feedback. The skills the teacher requires to obtain the desired response from a student are difficult to quantify as each student is individual and it takes time to build relationships and to understand what works best with different students.

The important themes that are emerging in this literature review are that labels which play to the ego are not useful, nor is feedback that is vague and unrelated to the learning goals. Feedback that seeks to 'close the gap' goes a long way toward addressing some of issues discussed so far but, to ensure that this is motivational the emphasis of the feedback needs to be on the qualities of the work rather than feedback that encourages comparison to others. Additionally, feedback must include specific ways in which the work could be improved with a comparison of the progress that the student is making between each piece of work (Hattie and Clarke, 2019). Feedback that satisfies these criteria, will direct a student to look at their progress and learning journey rather than that of their peers. This is powerful, in terms of motivation as every student has the capability to progress regardless of their ability, and teachers know that a student achieving a score of four out of ten in a spelling test might have worked twice as hard as the student achieving ten out of ten. The problem is that if all the student sees is grades and scores on their work, there is no celebration of what they have achieved in terms of their learning and progression, and they have no information to satisfy the three feedback questions of where am I going? How am I going? And where to next?

2.6 The Problem with Grading

Grading is an emotive subject because it is part of the student's educational life. Students generally expect to be graded as this is what will inform their next steps on completion of their college course whether this be into employment, further training, or higher education. The course that they enrol onto at college is determined by their performance at age sixteen in year 11 summative exams. Prior to these tests students are divided into sets in year 10 (age 14-15) according to ability which determines the type of assessments and exams they complete in year 11 (age 15 to 16). Therefore, from the age of fourteen (and possibly before) students have a clear idea of the grade or level they are working at and will often define themselves by this. This is restricting, because as seen earlier from the research by Butler (1987, 1988), when students are given a grade, they make no attempt to improve their work in subsequent lessons. Many renowned and well-respected authors and researchers agree with this. In their investigation into formative assessment, Black and Wiliam (1998, p8,9) describe the negative impact of grades and rewards.

> When the classroom culture focuses on rewards, "gold stars," grades, or class ranking, then pupils look for ways to obtain the best marks rather than to improve their learning. One reported consequence is that, when they have any choice, pupils avoid difficult tasks. They also spend time and energy looking for clues to the "right answer." Indeed, many become reluctant to ask questions out of a fear of failure. Pupils who encounter difficulties are led to believe that they lack ability, and this belief leads them to attribute their difficulties to a defect in themselves about which they cannot do a great deal. Thus, they avoid investing effort in learning that can lead only to disappointment, and they try to build up their self-esteem in other ways.

Grades, and scores inhibit dialogue between the teacher and student because they present a barrier. A student achieving at the low end of a scale will probably view attempts by the teacher to discuss the work as further criticism, whilst those achieving at the higher end will not see the necessity for further guidance. This means that opportunities for healthy discussion about errors or improvements are lost as are opportunities for the teacher and the student to learn about the way that the task has been approached and completed. Without this knowledge, the teachers planning is adversely affected as they will not notice patterns where the misconceptions or gaps in students' knowledge are. Black and Wiliam (1998), Kohn (1999, 2011), Blackwelder (2020), Blum, (2020), Chiaravalli, (2020) all mention several issues with grades, suggesting that there is a wealth of research from the 1930's onwards that highlight concerns with grading, not least the impact they have on students' engagement with learning, the reduction in thinking and the damage caused to relationships with the teacher and between students. The relationship between students is damaged due to the competition that is created as students compare themselves to each other and Kohn (1999) describes competition as "perhaps the single most toxic ingredient found in a classroom". Rather than thinking about their own learning, students judge themselves against the achievements of their peers when their time would be better spent on assessing and improving their own performance. Black and Wiliam (1998a) argue that this is why formative assessment is such an important part of classroom experiences, as it is through formative assessment, where grading is not featured that students are able to move from being passive recipients of feedback to being actively involved in evaluating their own learning. This is common across the range of studies and authors explored in this literature review. Sadler (1989) makes the point that grading which emphasize rankings or comparisons among students are irrelevant for formative purposes, which is similar to Ramaprasad's (1983) and Hattie and Clarkes' (2019) view that grades are not feedback. Klugar and DeNisi (1996) meta-analysis determined that the effectiveness of feedback declined when individuals received feedback containing praise or critical judgements that took students attention away from the task. Grades and scores, however, continue to be one of the most common types of feedback that students receive in the GFE college where this research is undertaken, and they do serve some purpose in relation to both formative and summative assessment. Airasian (1994) suggests that there are five main functions of grades:

1. They assist decision making, for example, when enrolling a student onto a course they inform the teacher if the student has met the entry requirements.
2. Teachers can guide students based on grades achieved.
3. Teachers can use the information to band students into ability groups.
4. The grade provides students with feedback on their attainment level.
5. Grades motivate students to try harder.

The first three are summative and function purely in inform other parties and stakeholders about a student's ability so that decisions can be made based on their starting points. The latter two can be considered formative assessment as they loosely serve the purpose of providing the student with information about their performance on a task, but that's where their usefulness stops. Grades tells the students nothing about their learning or anything about the discrepancies between what they know and what they need to know. Without these key pieces of information, the student has nowhere to go unless they are motivated to find out for themselves what they need to do to obtain a higher score or grade. As discussed earlier in this literature review there are several notable studies, namely Butler (1987, 1988), Butler and Nisan (1985), and Elawar and Corno (1985) that establish that grades are simply not effective at improving learning. Moreover, they reinforce negative attitudes to learning sometimes causing regression in performance, lowering interest in learning, lowering student's self-efficacy and fostering a fear of failure. There are of course counter arguments to grades. For example, Page (1958), cited in Gusky and Bailey (2001, p.3) set three feedback conditions. Group 1 were given a numerical score and corresponding grade. Group 2 were given standard comments and a grade and the final group, Group 3, were given detailed comments and a grade. Each group received a grade but what differed was the type of accompanying feedback. Page finds that students receiving the detailed feedback and grades outperformed the other two groups. Page's research offers a different viewpoint from the studies discussed in this Chapter, but of course there is a significant number of years that has passed between Page's research and those of Butler and others. Page's research does infer perhaps that it is not the grade that is the problem but the type of comments the students receive however, this also raises a question as to what the results would have been had he included a fourth group in the research study where detailed comments only were offered.

Apart from the grade itself being an issue in terms of the egocentric way in which they are often viewed by students, perhaps more disturbing is the potential influence for bias in awarding grades when marking work that is not anonymised as discussed by Malouff and Thorsteinsson (2016) and Dylan Wiliam in an article for TES (Parker, 2022). They found that physical characteristics about a person, for example, race, weight, attractiveness can adversely affect the grade awarded, although Brookhart et al (2016) in their review that synthesized 100 years of grading found other factors linked to behaviour that promote academic achievement were more prevalent in influencing teachers' decision making when awarding grades. As the value that teachers place on student behaviours such as effort and improvement will vary, this brings into question the trustworthiness, reliability, and validity of grading decisions. The question of fairness when awarding grades is not a new problem as research as far back as 1912 finds English teachers giving the same papers different grades (Elbow, 1994).

This in part helps to answer the dilemma posed in the introduction to this Chapter, as grades commonly accompany verbal and written feedback in the environment in which this research study is set. The evidence explored provides a sound argument to remove grades from formative assessment if the goal is to get students to engage with and act upon formative assessment feedback. There are, however, counter arguments to this. Reddan (2013) summarised in his paper that investigates the value of changing the way that a course is assessed from non-graded to graded that students expect to be graded and that grades can be used by teachers to motivate students as they serve as "academic carrots" (p. 226). In referring to a field project about a university course which combines work-integrated learning with career development learning, Reddan (2013) ascertains that students receiving a non-graded pass or fail expressed a preference for the course to be graded as this would increase their motivation, effort, focus and performance on the assessment tasks. Comments made by students participating in the study directly conflict with opinions put forward by Kohn (1999) as their responses indicate that they found the competition that the grades created between peers as motivational, healthy, and unifying. In the example presented by Reddan, grading is seen as preferable to a simple pass or fail. However, pass or fail courses neglect the inclusion of the fundamental information that students require from feedback to improve performance. Reddan's suggestion of replacing this with grades is assumed to be a positive step in motivating students to improve performance and indeed the findings support this. Whilst grading is seen by the students as a positive step, the research offers no comparison to feedback that does not include a grade. We can therefore only hypothesise if the student's reactions would have been similar if the pass or fail had been replaced with an alternative method of feedback, namely detailed written feedback that is useful in highlighting gaps in knowledge and motivational with prompts to aid improvements.

In Reddan's example above, students' preference was for a grade, and it was needed as this assisted their entry into postgraduate programs. The students in this study face a similar dilemma as grades support their transitions into higher education or employment. Students that have no indication of the grades they are working at prior to sitting a summative assessment may worry what their final result might be. The hope is that by teachers employing the strategies to 'close the gap' students will have the knowledge and skills required to achieve the grade they are capable of rather than the grade they have been told they will achieve. To do this, the student must have opportunities to react to feedback and building time and space into the timetable for this to happen is essential.

2.7 Providing Time and Space for Students to act upon Feedback

Everything discussed so far in terms of providing feedback that facilitates 'closing the gap' will be lost if students are not given the time to react to the feedback, particularly if marking takes place post lesson, which is often the case. Clarke (2001, 2014) suggests that allocating time in a lesson for students to respond to feedback is key to them understanding the feedback. Quite often, feedback is misunderstood or misinterpreted and if the teacher is not present to explain it, this causes more confusion which leads to the same mistakes being made in future work. Clarke argues that “if learning is our prime concern, then we cannot afford not to give children time to read and act on our feedback. It is one of the most significant aspects of learning” (p.57). In terms of timing of the feedback, this should come as quickly as possible, either during the lesson or if marked post lesson, then after the first draft and before learning has moved on. Coffield (2009, p.12) advises students that they should “act on the feedback or comments you get from your tutor” and that in doing so the quality of their learning will increase. This can only occur if the students are given the opportunity to do so within a reasonable time frame. Returning marked work to students’ weeks after submission when inevitability learning in the classroom has moved on to a different topic makes it very difficult for the student to recall the learning to which it relates. Thus, the opportunity to make improvements is much more challenging or lost altogether. Wiliam (2018) in recounting a study with eighty Canadian students in learning to write the major scales in their music classes, wherein students were divided into three groups supports the view that being given time to act on the feedback is a major contributor to future performance. Each group was given feedback in a different way, one orally, one written and one with no feedback. Whilst none of the three groups met the standard of 80 per cent for the task, the students in the oral group scored significantly higher than the other two groups. Because of the different parameters allocated to each group, the researchers could not assign reasons why this was the case except to observe that the oral group were given time in class to respond to the feedback. Clearly, there is an argument for assigning a lesson or a portion of the lesson for students to act upon feedback and the teacher’s expectation should be that students use this time to improve their work.

2.8 Conclusion

Twenty-five years ago, Black and Wiliam (1998a) provoked interest and debate in the topic of formative assessments by raising concerns as to how this is implemented in classrooms. Drawing on 250 research studies, they asserted that there were some fundamental issues with formative assessment and that improvements were needed so that students can progress in their learning otherwise the outlook for their educational success is bleak. Prior to and since that date meta-analyses have proven that feedback is a powerful tool in raising student achievement. This raises the question of why is it that feedback on formative assessment is still problematic, after all there is an overabundance of educational guides and literature available to teachers' providing advice on how to do this. The literature review does not highlight anything that is not already known. Black and Wiliam's (1998a) report "*Inside the Black Box"* was ground-breaking at that time as it shed light on what was not happening in the classroom and set out a bleak view of education in general if change did not happen. Many renowned authors in the field of education have since that date repeated this message referring to the same notable studies, namely those undertaken by Butler (1987, 1988) and the message is being repeated in this literature review. Whilst most of the seminal work reviewed in this chapter may be considered archaic, I return to my point in the first paragraph as to why feedback on formative assessment is still being debated as something that is difficult to get right. The answer may be that it is not feasible to produce guidance that will fit the vast range of educational settings and anyone attempting to take on this task cannot produce something that is going to be of use across or within different strands of education because each education settings has its own unique character and culture. "Building coherent theories, adequate descriptions and firmly grounded guides to practice for formative assessment is a formidable undertaking" Black and Wiliam (1998, p.61). Perhaps the most significant piece of research to come recently into the field of education is that undertaken by Dweck (2006. 2017). Her work on Mindset brings together many of the points made in this literature review in relation to how students construct and approach their learning, the impact of grades and scores on contributing to a fixed mindset and the balance of power between a teacher and student as features that have probably in the past been overlooked. It is possible, that pivotal works including that undertaken by Black and Wiliam (1998a) have been viewed in isolation rather than looking at the wider picture of issues associated with giving feedback. For example, the school or college culture, curriculum design, assessment practices and pedagogy (Black and Wiliam, 2018; Hattie and Clarke, 2019). Alongside these features, policy makers should consider the ideas of teachers and students when constructing policies on assessment practices and feedback as they are the ones using them. If the views of teachers and students are not included in policy and practice, then there is a danger that policy is driven by stakeholders who are not experiencing the curriculum rather than those who are concerned with what happens in the classroom daily. Simply running with a one-size- fits all is never going to be successful as all classrooms are different with a unique set of students. This is the primary message that the literature review uncovers as there is so much happening in each classroom that interferes with the giving and receiving of formative assessment feedback, and there is a requirement for teachers to understand this and to have at their disposal a variety of strategies that they can mix and match to individual students. As Black and Wiliam (1998a) point out it is not an easy process to produce an exact guide for teachers to follow. This topic is explored further by them in their 2018 paper '*Classroom assessment and pedagogy'* whereby they reply to Phillipe Perrenoud's (1998) response to the 1998 review that the door was left open on this topic, suggesting that 'formative assessment cannot be fully understood except within the context of a theory of pedagogy'. For example, in 2001, Clarke established several straightforward strategies for giving feedback on formative assessment to 'close the gap', drawing on Sadler's (1989) model and this is a recurrent message in more recent publications as detailed in table (*fig 3).* This establishes together with other notable authors that there are methods of giving feedback to students that shifts the attention to the task rather than focussing on ego-related goals involving the giving of grades and praise, which serve little to no purpose. By truly embracing the range of suggestions discussed in this literature review to 'close the gap' between the current level and desired level of skills and knowledge, teachers can create a cohesive, rich learning environment wherein there is an equal partnership between the teacher and the student. Some may argue that such utopia does not exist but given the learning gains that can be potentially achieved through the adoption of these strategies, they are certainly worth a try.

CHAPTER 3
METHODOLOGY AND RESEARCH DESIGN

3.1 Introduction

Knowing what distinguishes different kinds of knowledge claims is a key issue for any educational researcher and this is a question that has been contemplated since at least the times of the philosophers in Ancient Greece. Engaging in public debates with the powerful about the nature of the social world and how we can know it (Coe et al 2012), can be a dangerous pursuit as Socrates discovered when he was charged with, and sentenced to death for corrupting the minds of the youth by challenging and questioning the government and the existence of the gods of state. Whilst the consequences of carrying out educational research are not quite as severe today, researchers in the field of education need to be able and prepared to question the dichotomies that have been historically, politically, and socially constructed between educational theory and practice. This includes critical consideration of competing paradigms surrounding current debates in educational research.

Scott and Usher (1998) propose that when carrying out educational research, the researcher is seeking to investigate and address certain pre-defined issues or problems. All teachers can be considered as researchers, not necessarily in the conventional definition of a researcher, but nonetheless, teachers regularly examine what is happening in their classrooms as they try to put ideas and theories from educational research into practice. Carr (1995, p. 41) argues that “All educational theories are theories of theory and practice” and that teachers are natural researchers in the sense that putting any idea or theory into education is a process of enquiry and therefore, a form of educational research. Biesta and Burbules (2003) make a similar point where they refer to the work of Dewey, to point out that,

> This as we have seen, is why Dewey argues that the final reality of educational science is to be found in the minds of educators, which, in turn, implies that teachers and other educators are not simply passive consumers of educational knowledge, but, as much the creators of

> educational knowledge, even when they are drawing from research conducted by others, because their very act of problem-solving *is* a process of inquiry" and therefore a legitimate form of educational research.
>
> (Biesta and Burbules 2003, p. 111)

So, what characterises good educational research and what distinguishes it from routine practice? What is the differentiation between what the teacher is doing in their general day-to-day practice and formal research? Scott and Usher (1998) suggest that literature on research methods define this as a systematic investigation which is both rigorous and methodical. This implies a scientific approach which seeks to answer 'how' and 'why' questions from which generalisations and therefore predictions can be made. This is discussed in more detail later in this Chapter, but it is important to point out here, that such generalisations are not workable in the context of education. Every classroom, every teacher, every student is different, and it cannot be assumed that because something occurs in one classroom, it can or will automatically occur in all classrooms. Matters of context and the importance of local knowledge, combined with wise judgement are enduring and central issues in discourses surrounding educational research.

3.2 Ontology and Epistemology - Presumptions and Assumptions in Educational Research

Scott and Usher (1998) remind us that educational research is a complex human activity and a social practice. They point out that all educational researchers need to have a sound grasp of the basic philosophical underpinnings of different research traditions and assumptions upon which they are built in order to design and conduct systematic, rigorous and methodical research. Such assumptions they point out, tend to be unexamined in "technical literature" in the field of research methods where there is they note, an excessive emphasise upon methods and techniques borrowed without examination from social sciences (Scott and Usher, 1998, p.1) The same authors advise researchers in the field of education to question the ontological epistemological controversies in educational research before identifying and justifying an appropriate methodology to guide the conduct of their investigation and selecting methods of data collection, whether this be through qualitative methods such as observation or narrative enquiry or quantitative methods and techniques involved in analysing numerical data. Ontological questions regarding the nature of the social world alongside epistemological questions of how we can know it, lead us, as researchers in education, to consider how we know what is real and how we can justify the perspective(s) and methods we have adopted in our research. The first difficulty for any researcher is to have a thorough understanding of the terminology as this can be challenging. Epistemology, ontology, methodology, methods, theoretical perspectives have their own distinct definitions and marrying these together to form a research perspective is not an easy process. Crotty (1998) suggests that there is a hierarchy of levels in the decision-making process when constructing the research design, with epistemology at the top, followed by theoretical perspective, then methodology and methods. Each stage informs the next. Whilst Crotty does not explicitly mention ontological variations, he justifies this by explaining that there is a natural interdependency between the two which is difficult to distinguish. "To talk about the construction of meaning, epistemology is to talk about the construction of meaningful reality, ontology" (Crotty, 1998, p.10). Coe et al (2012, p.16) provide a helpful and simple framework for research design. They suggest that researchers should answer four key questions in a particular order starting with the question of the ontological perspective to be adopted. This prompts the researcher to ask, "what is the nature or form of the social world?" This question invites educational researchers to consider competing philosophical concepts of realism and constructivism and how they differ. Coe (2012) suggests that this can be explored as a continuum from left to right with a realist ontological perspective questioning if there is such a thing as external reality and accepting facts as real and independent of the human mind. From this perspective, there is singular objective reality which exists independently of individual's perceptions of it. Whereas, at the other end of the continuum, constructivism takes reality to be neither objective nor singular but made up of multiple realities constructed by individuals. Constructivism argues for the individual conceptualising their own meaning of social reality based on encounters and interactions with the world. In contrast to the realist position this suggests that knowledge is only acquired through individuals interreacting with others and the environment, and that meaning is constructed and co-constructed rather than discovered. Information is acquired through the senses and the individual derives meaning from this. However, this has many facets as humans conceptualise experiences differently and people encountering the same experiences and interactions will construct their own reality based on their perceptions of these. This leads onto the epistemological question of "How can what is assumed to exist be known?" (Waring, 2012, p.16). When considering this question, the researcher is prompted to address the issue not only of what is known, but how is it known. Failing to be aware of and pay attention to the ontological and epistemological assumptions in educational research, Scott and Usher (1998) caution, is to call the coherence and quality of the research undertaken into question. There is a natural relationship between the first two questions because the ontological question relates to the nature of reality, and issues of the extent to which multiple realities exist depending on the ontological. The epistemic question asks us to consider what counts as knowledge and how we can know it. It follows that the ontological position adopted will influence the epistemological position. This research adopts a constructivist ontological position and combines it with an interpretivist epistemological position. This is because, this research is a study of lived human experience constructed by individuals in their encounters with other people and the world around them. From this ontological starting point, direct knowledge of the experiences of others is not possible, therefore, it is through the interpretation of accounts and observations of lived experience that knowledge and meaning are developed in this thesis.

This leads us to questions of the methodology and the procedures or logic which should be followed in the research. Returning to the idea of a continuum the constructivist ontology and interpretive epistemology, the logic guiding the research is inductive and moves from particular cases slowly and incrementally towards what may be reasonably inferred to be more general. The variable and personal nature of the social constructions studied in this research require interpretation and refinement through interaction between and among researcher and participants in the research.

The methodology or logic of the study then becomes, “not a matter of eliminating conflicting or previous interpretations, but to distil a more sophisticated and informed consensus construction” (Waring, 2012, p. 18). Issues of methodology and methods are discussed in some detail later in this Chapter.

Chapter one explores the context of the educational issue that forms the basis of this thesis and the educational problem which provided the impetus for this research. The same Chapter includes a description of the accounts of the experiences of teachers who are at the ‘coal face’ every day. However, to assume that these experiences can be uncritically accepted at face value would be to both oversimplify and to overlook the complex and subjective dimensions of human experience. Phenomena derived on through systematic scientific enquiry can and should therefore be able to stand up to rigorous scrutiny and be able to justify the trustworthiness, credibility, and authenticity of the research in question. Inevitably, the choice of research methodology and methods are synonymous with the theoretical position assumed by the researcher.

As discussed above, Waring (2012, p16), posits a direct correlation between the ontological positions connecting realist ontology with positivism and linking constructivist ontology with interpretivism epistemology respectively. The connection of an ontological position with realism and objectivity suggests the existence of a singular objective reality. A common analogy used to describe this objectivity is the existence of the tree in the forest regardless of whether anyone is aware of its existence or not. “When human beings recognise it as a tree, they are simply discovering a meaning that has been lying there in wait for them all along.” (Crotty, 1998, p.8). Rigid positivist-empirical perspectives adopt the view that research should aim to detect patterns and laws to which generalisations can be applied. Coe, 2012, suggests that when taking a positivist approach, it is assumed that “it is possible to find universal laws and knowledge that are generalisable” (p,7). On the other hand, this raises the question of the extent to which it is possible to say that bias does not exist when undertaking any form of research. Through the work of Dewey, Biesta and

Burbules (2003, pp.18-19) describe how Dewey regarded the drive towards objective knowledge in Western Philosophy as the "spectator theory of knowledge' – a philosophy about reality in which it was maintained that only what is fixed, immutable and unchangeable can and should be real linked to an epistemology in which it was argued that certain knowledge must relate to that which had antecedent existence, essential being or as Plato described them, "prefect forms". Biesta and Burbules (ibid) illustrate that one implication of these twin assumptions is that true knowledge can only be acquired if the *process of acquiring knowledge* does not exert any influence on the *object* of knowledge and so the "spectator theory of knowledge" was born. Researchers' of course, have their own values beliefs and assumptions and bias and these assumptions will be present in and have implications for the ways in which they justify how they conduct their research in some form or other. This is perhaps evident in their choice of literature and/or their accounts of participants and the researchers' own experiences. Competing epistemological positions require the researcher to question what is assumed to be known and the reality of what is assumed to be known and to be able to justify the positions they adopt. This includes an examination of the researchers' own beliefs, their judgements and practices as these factors will influence the way in which the researcher views and makes claims to the knowledge throughout the research process. For example, in the context of this research, my own experiences of practice, as well as the experiences of my colleagues, suggest that students are not making effective use of feedback they receive on their formative assessments. This problem in educational practice is described and discussed in Chapter 1 in the context in which this research is set. Chapter 2 critically reviews key contributions to and debates in peer-reviewed published literature which document patterns of student's behaviour gained through observation and data collection in the field of formative assessment. For example, the studies undertaken by Butler (1987, 1998) observed students' reactions to various forms of feedback. Butler collected data on their performance before and after the interventions. She concludes that the type and way in which feedback was given to students influenced their performance and suggests that the cause of the problem is therefore the teacher. This is considered and discussed in some detail Chapters 4 and 5. As a researcher investigating the issues surrounding feedback based on formative assessment, it is easy to uncritically consume this information, (particularly as it is supported by similar studies) and to make the generalisation that the problem and cause are the same in all classroom contexts. This would be a mistake. Scott and Usher (1998) state that "A generalisation is prized precisely because, in not being limited to a particular setting, it is seen as making application possible" (p.10). The presumptions made from this imply a certain degree of arrogance on the part of the researcher. The uncritical acceptance of such generalisations is therefore dangerous in educational research (as many teachers have found to their cost). This can have negative impact as the naïve researcher is led down a path which leads them to at worst ignore or overlook, at best underestimate significant differences in context between individual settings, classes, teachers, and students. Such uncritical acceptances of claims made by other researchers which are not supported by robust empirical evidence systematically and carefully analysed do little to strengthen the credibility of educational research in general irrespective of the ontological and epistemological position adopted by me as the researcher conducting this study.

In contrast, when adopting the interpretivist viewpoint, the researcher is primarily concerned with developing insights into people's beliefs and their lived experiences by employing methodologies such as symbolic interaction, phenomenology or hermeneutics and qualitative methods for data collection such as case study, observation, or narrative enquiry. In his table *Basic assumptions fundamental to the positivist and interpretivist approach,* based upon Guba and Lincoln (1994) and Sparkes (1987, 1992), Waring (2012) suggests when adopting an interpretivist position, the researcher and the participants are interlinked with both taking an active role. "Findings are literally created as the investigation proceeds" (Waring, 2012, p.18). This is where the lines between the ontological perspective and the epistemological perspective become blurred as indicated by a dashed line in the table mentioned above. Waring (2012) explains this point further. "What can be known is inextricably linked with the interaction between a particular investigator and a particular object or group" (p.18). Drawing on Crotty's (1998) hierarchy and Waring's (2012) four questions in relation to research design, it is possible to detect a paradigm between the theoretical perspective assumed by the researcher and the methodologies and methods employed to provide any reader of the research with confidence that the research has been systematically and meticulously planned and executed, and thus the results are both authentic and trustworthy. This is important for the researcher using qualitative methods as they play a central role in gathering and analysing the data. In the context of this research, where I am the sole investigator in a single setting, the journey of the research can be mapped as in Fig 5 below.

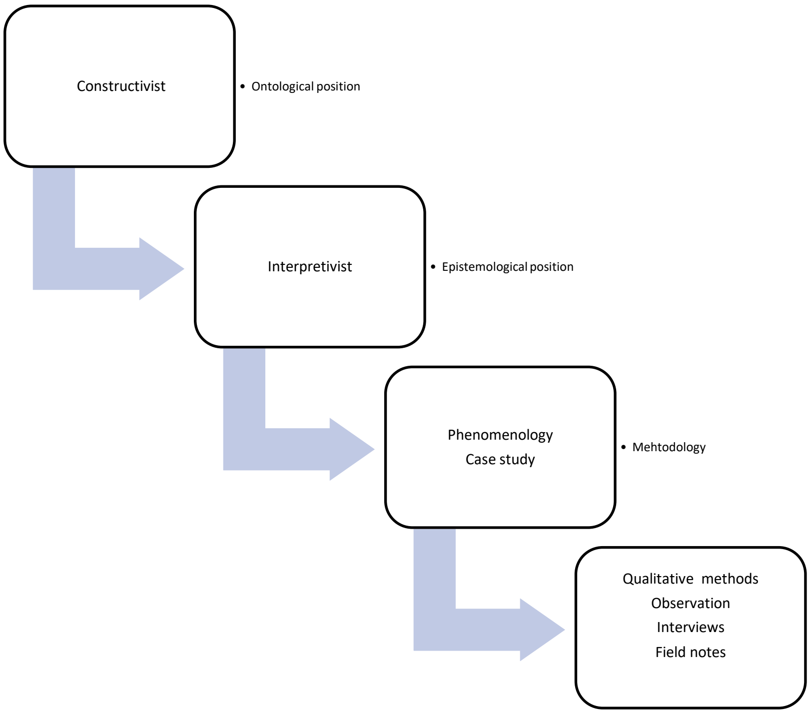


Fig 5: The relationship between ontology, epistemology, methodology and methods (adapted from Coe et al, 2012)

The constructivist-interpretivist approach as with any theoretical position taken by the researcher, is not without its criticisms. Interpretations of the data can be viewed as subjective as they arise from the researcher's analysis which can be influenced by an array of factors including the conclusions that the researcher draws from field notes and other research data, which can also be prejudiced by the researchers' own experiences, attitudes, beliefs, feelings, and emotions. Constructing a view of the world through experience will have different meaning for different people. The case of the 'tree in the forest' used earlier is a prime example of this, as the interpretation of a tree will be dependent on an individual's experience of a tree. "'Tree' is likely to bear quite different connotations in a logging town, an artists' settlement and a treeless slum" (Crotty, 1998, p. 43). The suggestion is that by taking this approach the researcher adopts a totally subjective view, although it must be acknowledged that there is an element of objectivity, as in 'the tree' example. It is an object that exists in the world, this is the starting point for constructing meaning. The object in this research is the feedback on lived experiences of providing and receiving formative assessment. These experiences exist in a variety of forms, and the students can be viewed as 'mini researchers,' constructing their own meaning from what they are reading, hearing, and experiencing. How they interpret and use these experiences is a question being asked in this research, and the methods employed in this study seek to illuminate and address this complex and enduring educational issue in the field of assessment theory and practice.

3.3 Positivist Verses Interpretivist Approaches to Methodology and Methods

As discussed above, the third step in the researcher's journey is to consider the methodology (the procedure or logic) to be employed in the study, and the methods used to collect the data which complement the ontological and epistemological viewpoint adopted. Arthur et al (2012), suggest that a constructivist-interpretivist researcher will look to approaches which are idiographic, dialectical, and hermeneutical in character. The hermeneutical approach is the study of interpretation and there are different strategies that a researcher taking this approach can employ. For example, hermeneutical phenomenology, which Denscombe (2017) describes the phenomenological approach as a "style of research that emphasizes; subjectivity (rather than objectivity); descriptions (more than analysis); interpretation (rather than measurement); agency (rather than structure)" (p.137). This coheres with the ontological and epistemological viewpoint of constructivism and interpretive respectively as it differs from approaches to research such as nomothetic, which seeks to find generalisations that apply to all people (Arthur et al, 2012). This approach is more suited to a researcher assuming an ontological stance of realism and an epistemological position of positivism. The positivist researcher will tend to use quantitative methods such as statistical data generated from tests and experiments. This is a deductive logical exercise which involves the testing of a hypothesis, which can generate useful information which allows generalisations about social activity to be made and applied to similar settings (Scott and Usher, 1998). There are several issues with this approach to research as the context in which the research is set is not considered, the environment and participants can be manipulated by the researcher, social and cultural diversities are not considered, and the researcher may find that their methods create ethical dilemmas which may be difficult to resolve. However, Denzin (1989) cited in Scott and Usher (1998) lists five characteristics to distinguish positivist from interpretive based research approaches, "objective reality can be grasped; researchers can remain neutral with their values separate from the description of the reality they provide; observations and generalisations are a-situational and a-temporal; causality is linear; and enquiry is an objective activity" (p.55). This suggests that the methods employed by a researcher with a positivist philosophy provide a definitive answer to the problem, issue or question being investigated as it can be assumed that if X causes Y in one setting, then this generality can be applied to all settings (Scott and Usher, 1998). However, there are problems with this assumption. The first issue centres on validity. Can any researcher confidently say that the experiments used provide for a completely certain or valid conclusion? As discussed previously, no two educational settings or students are the same. Students will react differently according to a range of factors, and it is almost impossible for a researcher to include every variable when analysing the data they have collected. Variables such as the students age, gender, emotional state, or history can affect the outcomes, as can the behaviour of the researcher. The second issue is that of impartiality. Can any research be truly free from bias and confirm that neutrality really exists even when taking a positivist approach? This is a question that all researchers need to ask themselves and justify before starting their research in order to arrive at a research position which they can justify.

This poses a dilemma for the interpretivist researcher, as it can be argued that positivist approach (despite some of the issues mentioned) of empirical scientific enquiry produces accurate data, which is fair and impartial and therefore objective. In contrast the interpretivist researcher seeks to draw meaning from their explorations of lived human experiences and as already mentioned there are an array of factors that influence the outcomes of this. Scott and Usher (1998) remind us of the importance of reflexivity when engaging in qualitative research as by doing this the researcher can perhaps allay any concerns about the trustworthiness and credibility of the research. Reflexivity goes beyond reflection, and it is defined by Roulston (2010) as “the researcher’s ability to be able to self-consciously refer to him or herself in relation to the production of knowledge about research topics” (p.116). Reflexivity is discussed in more detail later in this Chapter. There are a variety of research models to conduct a qualitative enquiry, but what is qualitative research? Denzin and Lincoln, (2011, p.3), describe qualitative research as:

> Qualitative research is a situated activity that locates the observer in the world. Qualitative research consists of a set of interpretive, material practices that make the world visible. These practices transform the world. They turn the world into a series of representations, including field notes, interviews, conversations, photographs, recordings, and memos to the self. At this level, qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them.

This provides useful meaning to the qualitative researcher as this aligns to the interpretivist theoretical stance taken in this research and the educational issue of formative assessment. The data are collected in the participants natural setting using qualitative methods such as interview, observation, case study and field notes which are meticulously analysed to establish patterns and themes. The techniques applied in this study for data analysis are discussed in detail in Chapter four.

Denzin and Lincoln (2011) offer a definition of qualitative research which supports the view that it is an investigation into lived human experiences from which meaning can be constructed and interpreted. There are several approaches that the researcher can employ. For example, grounded theory, phenomenology, and narrative enquiry. These are discussed in the following paragraphs in terms of their value (or not) in relation to this research study.

3.3 (1) Grounded theory

The Grounded Theory developed by Glaser and Strauss (1967) might be a good match for the researcher undertaking a small-scale study of human experience, in a particular setting involving the analysis of qualitative data. It is perhaps on the face of it synonymous with the interpretivist stance taken in this research study. The original developers of the approach have moved in different directions since its earlier conceptions, but the underlying foundations remain the same. There is consensus that the approach seeks to generate theories (using inductive logic) as opposed to testing theories (deductive), and that it is conducted using methods that endeavour to record the nature of the social world. Data are collected and analysed using codes and categories from which recurring themes and concepts emerge. The researcher keeps an open mind and allows the data analysis to direct the next steps. Methods selected are a key component when using this approach, as the researcher needs to justify how they have gained their understanding of the social world and how this has contributed to their knowledge development of their theories and meaning making. Glaser and Strauss (1967) suggest that use of the grounded theory approach allows the researcher to remain open minded to the possibilities that are generated from the data analysis, but this can only occur they argue, if the researcher has approached the investigation with a clear mind free from any predetermined hypothesis and theoretical perspectives that could influence the course of the research. Criticisms of this suggest that this is not possible for any human being to achieve what is often described as a *tabula rasa* or clean slate, as researchers generally have some experiences of the problem being investigated, or an idea of their research hypothesis and theoretical ideas that underpin this before the investigation starts (Scott and Usher, 1998). In the context of this thesis, there are two main reasons why grounded theory would not be appropriate. Firstly, the approach implies a philosophy of positivism as the researcher is limited to data collection, which is interpreted in an objective way, which conflicts with the theoretical perspective adopted in this research. Charmaz (2000), cited in Denscombe (2017) argues, “Glaser’s position often comes closer to traditional positivism, with its assumptions of external reality [and] a neutral observer who discovers data” (p.120). Secondly, grounded theory roots are embedded in inductive reasoning, seeking to develop a theory from data collected in the field. Whilst the logic guiding this study is inductive, my thinking and my research to date have been influenced by my critical discussion of peer reviewed literature in this field of study as well as by my own lived experiences of research, theory, and practice in the field of assessment in the context of my work. While I do not have a 'hypothesis' as such, I know that there is something wrong in assessment practice, but I do not yet understand the problem well enough to know what that disturbance is yet or how it might be addressed. An aim of this research is therefore to move my thinking and my practice forward in the light of evidence generated and analysed in the course of this study. In this sense, the logic employed in this research is appropriately inductive. However, its ambitions are not positivist but interpretivist as I do my best to conduct educational research that is trustworthy, authentic, credible, rigorous and systematic and perhaps most importantly of all useful to other teachers and researchers as I move tentatively from a study of a particular case incrementally toward what may be reasonably inferred to be more general.

3.3 (2) Phenomenology

Creswell and Poth (2018) provide insights into the history and developments of this approach to qualitative research design, the origins of which come from philosophy and the work of the German mathematician, Edmund Husserl (1859-1938; 1970). Phenomenology is primarily concerned with investigating human experience, and it seeks to find meaning in those experiences, rather than finding out the causes of things. Denscombe (2017), provides an example of this in relation to a researcher investigating 'homelessness.' The researcher's focus would be on finding out about the experiences of someone being homeless, rather than the extent or causes of homelessness. As with any approach, this has been developed over time and those who have expanded on this have made adaptations, which Denscombe (2017) suggests can be separated into two main types. The European version, and the North American version. The European version includes adaptations by writers such as Heidegger (1962) and Sartre (1956) who present different philosophical arguments on the use of phenomenological research today. However, they have a common thread which returns to the roots of phenomenology as there is agreement that this approach is concerned with “investigating the *essence* of human experience” (Denscombe (2017, p.143). The researcher using this approach would be interested in the individual’s experience of a particular aspect of their lives and the features of that experience. In other words, the ‘essence’ of the experience (Merriam and Tisdell 2015). An important point to make here, is that it is not the job of the researcher to interpret or analyse individuals accounts of their lived experiences, but to record and accurately recount these experiences. The individuals themselves will be their own interpreters of their experiences, thus construct their own social reality and this opens the possibility of multiple realities being constructed. Individuals experiencing the same thing will have different responses, this is the nature of the social world. Otherwise, we would all like marmite! Does this align to the interpretivist research position? In many respects it does, because the methods employed, such as unstructured interview will bring to light this concept of multiple realities, which underpin phenomenology. This is in direct conflict to the positivist approaches that look for explanations that fit one universal reality (Denscombe, 2017). Although, it is not the job of the researcher to interpret the participant’s responses, these will need to be examined in some way to draw conclusions. The analysis will focus on ‘what’ the individuals experienced and ‘how’ they experienced it. By seeing the experience from the person’s point of view, the researcher puts themselves in the shoes of the participant. Denscombe (2017) advocates the European approach, stating that the North American approach adapted from Husserl’s original concepts by Schutz (1962, 1967) is more concerned with the cognitive processes through which humans make sense of their experiences. This takes the focus away from the investigating the fundamental features of the experience and is therefore more concerned with the ways people interpret social phenomena.

In defining the features of phenomenology, Creswell, and Poth (2018), suggest there are some features that are typically included in phenomenological studies. The study has a single concept, and this phenomenon is explored with a group of individuals experiencing the same thing. The researcher explores the lived experiences of the participants acknowledging that their experiences are both subjective, based on the participants own perceptions of the event, and objective as all participants experience the same phenomenon. A further feature is the idea of 'bracketing'. The researcher inevitability has their own beliefs, views, and opinions about the phenomenon being investigated. This comes from their own experiences and as Denscombe (2017) posits, they "are part of the social world they seek to investigate" (p.140). Researchers need to be able to take a step back from their own presumptions and opinions and not allow these to cloud what they are seeing otherwise their accounts of the events will lack objectivity and therefore credibility. The researcher needs to be a 'fly on wall', observing and taking in the information so that they can gain a real understanding of the participants perspective of the phenomenon. This returns us to the point of reflexivity and the researcher being prepared to examine their own beliefs and practices to assess if their behaviour impacts or influences the research. Methods of data collection in this study involve mainly semi-structured interview, observation and case study and subsequent analysis of these explore commonality between themes to gain meaning about what was experienced by the individuals and how.

3.3 (3) Case study research

The case study approach is widely used by social scientists following in the footsteps of other disciplines such as anthropologists, sociologists, and psychologists. Qualitative case study in the field of education is supported by Merriam and Tisdall (2015). They quote Yin's (2014) case study definition as, "a case study is an empirical enquiry that investigates a contemporary phenomenon (the 'case') within its real-life context, especially when the boundaries between phenomenon and context may not be evident" (Merriam and Tisdall 2015, pp.37-38). Case studies are 'bounded' by the one thing that is being investigated. Merriam and Tisdall (2015) suggest that if the phenomenon being investigated is not 'bounded' then it is not a case. A way to test this would be for the researcher to ask themselves if there is a limitless number of participants that could be interviewed or observed. If the answer is 'yes', then it is not 'bounded' and therefore not a case. In relation to this research study, the case is the General Further Education college and more specifically the classroom in the curriculum area in which I teach. The phenomenon being investigated is feedback on student tasks and assignments using the principles and techniques of formative assessment. It is a small-scale study and there is a limited number of participants in the research population. Denscombe (2017) discusses the use of case studies in relation to inductive and deductive studies, advising that case studies are not commonly used in research following a deductive logic. Case studies can however be used for theory 'testing'. Used in this instance the researcher either "(1) tries to reinforce the value of a theory by demonstrating how it works in reality; or (2) sets out to test whether a particular theory might work under the specific conditions to be found in the case setting'" (Denscombe, 2017, p.59). The use of case study in this research is, therefore, mainly to 'illustrate' how the theory of formative assessment is experienced, applied and practised in the classroom context in which it is set and how the changes implemented influence the participants. Analysis of the case study involves the identification of recurring themes which are described in order to arrive at an overall meaning. In research involving case study, multiple methods of collecting data should be used such as interviews and observations, but again the question of credibility arises as the researcher will need to demonstrate that the findings have been reached through a robust process of analysis and that they are like other case studies of that type. This once again brings to light the need for reflexivity.

3.4 Reflexivity and Positionality in Educational Research

I have referred to reflexivity several times in the discussion on methodology and it is important to pause at this point in the Chapter before moving onto methods to examine this in more detail. The hermeneutic approach taken in this study requires the researcher to critically examine how their own positionality, personality, assumptions, and opinions may impact the collection of the empirical material collected. This level of self-scrutiny is necessary to authenticate the knowledge claims and conclusions made when undertaking qualitative approaches, although as Scott and Usher (1998) highlight, all researchers need to engage in reflexive practice regardless of the research paradigm adopted. Creswell and Poth (2018) suggest that researchers today are much more open to self-disclosure than researchers in the past and quote Ronald Pelias (2011) description of reflexive writers as, "ethically and politically self-aware and make themselves part of their own, enquiry" (p.662). The qualitative researcher is very much part of the research process. They are not disconnected or neutral, they are living the experiences alongside their participants and creating text based on these experiences, which of course is open to interpretation. This is even the case in approaches such as phenomenology, as although the researcher positions themselves as ‘a fly on the wall’, it is not truly possible to say that their subsequent analysis is not influenced in some way by their own values and beliefs, which brings into question trustworthiness as the researcher becomes the main constructor rather than the co-constructor of the research.

This raises concerns about the impact of the researcher’s writing on their research participants, particularly if the researcher has emphasised some themes, but toned down or completely left out others. Creswell and Poth (2018), question how this will be perceived by the participants. Will they feel that their beliefs and opinions have been discounted and marginalised by the researcher? This could lead to the participants telling the researcher what they want to hear rather than expressing their genuine thoughts and perspectives. On the other hand, Creswell and Poth (2018), suggest that the proposed audience for the research may influence the author of the research. The researcher may worry that the audience will perceive the research differently, which may impact on the final text.

Clearly, there is a lot for the researcher to consider because if the researcher does any of the above, then they are doing their participants, who have consciously experienced the phenomena in their world a disservice. Cresswell and Poth (208) advise that “researchers need to ‘position’ themselves in their writing” (p.303). The researcher clarifies their position without any ambiguity at the beginning and throughout the research process. Creswell and Poth (2018) see this has having two parts. “The researcher first talks about his or her experience with the phenomenon being explored……. The second part is to discuss how these past experiences shape the researcher’s interpretation of the phenomenon” (p.303). It has been made clear in the abstract, chapter 1 and this chapter that the research is conducted by a sole insider researcher who is interacting regularly with the student and teacher participants. The researcher experiences the topic under investigation within their classroom practice and has identified an issue with feedback on formative assessments and this will undoubtably has the potential to influence the conduct of the research. The philosophy that underpins the research methodology and methods described in this chapter goes some way towards mitigating these concerns by providing a justification for the research stance and the methods of data collection. However, this justification perhaps falls short of offering the reassurance needed to address concerns of biases, beliefs and values that the researcher may hold. In the context of this research, these biases may stem from the researchers own ingrained opinion on the reasons why students do not appear to act upon feedback provided to them on formative assessments. The first step towards addressing such concerns is for the researcher to acknowledge that such biases can exist and to then critically reflect on how these might impact the research findings. In the context of this research study, field notes and entries in a reflective diary which is updated regularly assist with the reflexive process. These provide an insight into the approach that the researcher takes in this research to, as far as possible, mitigate any concerns that they have allowed their own experiences, biases, beliefs and values to influence the research findings. The reflective diary extract in appendix 5 shows how the voices and experiences of the student participants is carefully considered and included in the study. The use of the reflective diary is discussed in greater depth in Chapter 4. Extract from reflective diary can been seen in appendix 1.

3.5 Research Participants

Having asserted the positionality of the researcher and how this is considered within the research it is important at this point of the thesis to offer a more in-depth description of the research participants.

The 17 student participants are all aged between 16 and 18 years. They each have their own social identity and there is a mix of race and ethnicity within the group. They do have some shared features as they are all female, they are all are studying the same subject and level, and they have all entered college from schools funded by the Department for education (DfE). Prior to entering college, they sat formal examinations at age 16 in mandatory subjects of maths, English, and Science and between 3 and 6 subjects of their own choosing. Performance at these examinations dictated the course that students were accepted onto at college. The Childcare and Education course that these students are studying for is a level 3 qualification studied over two years. Entry requirements for this course are achievement of a grade 4 or above in English and maths and a grade 4 or equivalent in two other subjects. At the end of the course most students progress into work in their chosen vocation, however, they also have the option of continuing their studies at university. Sadly, students and their parents/carers (not all) who choose to come to college to study vocational subjects can see this as lesser value choice than remaining in school to study more academic subjects. Next to the college setting is a Grammer School. Grammar schools in the UK only accept the highest academic achieving students and students are required to pass rigorous examinations at age 11 to be admitted to the school. Students attending the grammar school walk through the college grounds to access public transport and they can often be heard shouting derogatory remarks to the college students about them being ‘losers’ and only good enough to serve burgers in McDonalds. McDonalds, incidentally, has excellent career opportunities and progression. The negative views that surround college attendance does unfortunately filter to the student body, and it can take a long time for students to feel valued and for them to develop aspirational goals for themselves. It is, therefore, perhaps unsurprising that feedback can be seen by the students as threatening or a criticism of their ability and that the only purpose of feedback is to reaffirm their already negative opinions about themselves.

The 5 teachers in this study (3 female, 2 male) all teach subjects in varied vocational subjects from level 1 to level 3 as follows:

Teacher 1 – Public services

Teacher 2 – Sport

Teacher 3 – Education and Childcare

Tracher 4 – Health, Health and Social Care

Teacher 5 – Art and Design

The teachers are similar as they have all chosen to teach in the Further Education sector having had successful careers in their subject areas. One teacher splits her working week between teaching at college and teaching in an early- years setting. Another teacher has his own private business as a personal trainer which he balances with his teaching commitments. All are qualified in their industries and have completed mandatory teacher training. They have dual professional responsibility as they are required to regularly update their knowledge about the industries they teach, which are continually evolving and changing, alongside developing their pedagogical practice in the classroom. They are all passionate about their industries and want to not only impart their knowledge about the industry but to inspire young people to develop their careers within that industry.

3.6 Triangulation, Mixing Research Designs and Methods

The thought of mixing research designs is a relatively new concept as in the past questions were raised about the legitimacy of using this model of inquiry, but this has now changed, and people are asking how to carry out mixed methods (Creswell and Plano Clark, 2018). Denscombe (2017) details some of the advantages of employing mixed methods, including how this approach helps the researcher in understanding the complexities of the issue they are studying in greater depth and that triangulation plays a key role when this method is employed. This adds a level of robustness to the research findings as comparisons can be made between the different perspectives. Creswell and Plano Clark (2018) acknowledge that there are many definitions of mixed methods but draw attention to Johnson et al (2007) explanation of the different elements of this form of research.

> Mixed methods research is the type of research in which a research or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the purposes of breadth and corroboration. (Johnson et al, 2007, p,123 cited in Creswell and Plano Clark, 2018).

Creswell and Plano Clark (2018) acknowledge studies that include only qualitative data do not render them invalid, in fact qualitative approaches offer rich insights into the complexity of a problem and reflect the voice of the participants. It should never be the case that quantitative data is ‘shoehorned’ into a qualitative study or vice versa. It should only be included if there is a genuine reason for doing so. The most important thing to consider is that the methods chosen are relevant to the research problem and the research questions and because it will add depth to the study and strengthen the credibility of the findings.

This prompts the researcher to question their motives, for using a mixed-method approach and whose interest is going to be served by doing so. In the context of this research, I made the decision not to use quantitative data, although in the initial construction of the research methods I did consider using a questionnaire to gain knowledge of student’s experiences of feedback on formative assessment from the wider student body beyond the participants used for the qualitative data. I also considered using performance data to assess the progress made in grade achievement by the student participants. I abandoned both methods as my understanding of issues in educational research and research philosophy and methodology deepened, realising that quantitative methods were not commensurate with the constructivist, interpretivist approach adopted in this study. Although Denscombe (2017) does remind researchers that pragmatism is a dominant feature of the mixed method approach. He argues that researchers should not allow their original research philosophy of positivism (associated with quantitative research) or qualitative (associated with interpretivists) to sway them away from using the mixed method approach. “Decisions about which methods to use should, instead, be based on how *useful* the methods are for addressing a particular question, issue or problem that is being investigated.” (Denscombe, 2017, p.172). He goes on to note that,

> … in practice there is no demarcation between line between ‘quantitative methods’ and ‘qualitative methods’ While some methods might seem better suited to the collection of quantitative data, others to qualitative data, it is important to recognise that methods can lend themselves to the collection of both qualitative data and quantitative

> data… The qualitative/quantitative distinction actually relates to the data are collected not the methods of collection *per se.*
>
> (Denscombe, 2017, p.180).

This returns us to the question of whose interest would be served by using quantitative methods of data collection alongside qualitative methods. It is important to acknowledge that this research takes place in a General Further Education college environment whose performance is judged on data and students results. Senior management and stakeholders will want to see 'impact' from the research before any policy change is implemented. One way to measure this is by looking at the value that has been added to student grades on their summative assessments before and after the interventions used in this study in respect of formative assessment feedback. Teachers will want to know that it is worth their time and effort to implement change in their classrooms, and it is often quantitative data that is the persuading factor. The danger here, however, is that in using quantitative data is that the focus of the research shifts from serving the best interests of the student participants to the stakeholders for whom quantitative data is essential. Denscombe (2017) suggests that when the mixed method approach is taken, then the qualitative data should remain the dominant feature. However, the researcher may unwittingly assume that the quantitative data will complement the discoveries made in the qualitative data, but this may not necessarily be the case and they may attempt to manipulate the data so that it does. This could be because they feel pressure from the organisation and external stakeholders. This would have a negative impact on the findings and lead to recommendations and conclusions that are not credible or trustworthy. Therefore, in this research study quantitative data is not used, not only because of the research stance adopted for the study but also for ethical reasons of keeping the focus of the research firmly on the student experiences of formative assessment so that the study can recount these experiences openly and honestly without the interference of numerical data.

3.7 Methods

3.7 (1) In-depth interviews

Mears (2012) in Coe et al (2012) focuses attention on interviews being a tool through which the researcher can gain in depth knowledge of a person's thoughts, feelings, and perceptions of a phenomenon. It is much more than having a conversation with someone, as data is being collected about their lived experiences. It requires careful thought and planning for the researcher to grasp meaning and to fully understand the individual's perspective. The students and teachers participating in this research are telling their stories, they are characters in their own stories and the stories of others (Connelly and Clandinin 1990), and how they interpret and recount their stories must be treated with respect. Equally important is the selection of interviewees in relation to the problem being investigated. This research is about formative assessment and the natural selection for this is the students receiving formative assessment feedback. Whilst there is no prescriptive number recommended for this, it is the responsibility of the researcher to ensure that enough interviews take place, otherwise the subsequent analysis will be inadequate and lacking in detail. Interviews can be structured, semi structured or unstructured. Semi-structured and unstructured interviews, provide the opportunity for the interviewee to develop their own ideas and express their thoughts and feelings, particularly in the unstructured interview as this discussion is not shaped by the researchers predetermined questions (Denscombe, 2017). The qualitative data collected from the unstructured interview match well with the phenomenological approach and provides a rich and diverse source of insights into individual lived experiences.

One-to-one semi-structured interviews are used in this study and the Covid-19 Pandemic had an impact on this. Whilst it is not unusual for interviews to take place over the phone or through video platforms such as Zoom and Teams in normal circumstances (due to time constraints, distance involved and cost of travel), this was a situation that was forced upon the student and teacher population. The students became 'zoom' weary. They did not want to put cameras on and would often only communicate through the chat facility rather than audio. Attempts at interviews failed to produce the quality of information and data needed. Students were not able to verbalise their experiences in a way that was a genuine reflection of their thoughts or feelings. The interviews were paused until such time as face-to-face teaching and learning returned.

Whilst semi-structured and unstructured interviews provide a rich insight into the interviewees lived experiences, it can be argued that this offers only subjective material. This is because they are based around the interviewees perceptions of how they feel about the phenomenon they have experienced, but there is also objectivity, as interviewees are selected on the basis that they are all experiencing the same thing at the same time. This suggests a level of authenticity and credibility as responses are compared and similarities and differences are highlighted in the themes as they emerge. Interviewers can return to their field notes and/or recordings several times. There are disadvantages to this method, as Denscombe (2017) highlights, semi-structured and unstructured interviews are time consuming. Interviewees may say what they think the interviewer wants to hear. Denscombe (2017) describes this as the 'interviewer effect' which suggests a power struggle between the interviewer and the interviewee. Mears (2012) in Arthur et al (2012), acknowledges similar challenges agreeing that interviews can require a lot of time and patience. Not only during the interview, but subsequently in the analysis of what has been said.

3.7 (2) Observation

Denscombe (2017) suggests that observation can be divided into two categories "systematic observation (also known as 'structed observation') and 'participant observation'" (p.224). Both methods have similarities and differences, but participant observation is typically connected to qualitative data. Participant observation means that, "researchers strive to be active members of the group they are observing" Angrosino (2012, p.166) in Arthur et al (2012). In becoming part of the group, the observer gains insider knowledge of the experiences of the participants and an understanding of these experiences through their eyes. A series of observations are carried out, starting with the descriptive stage which gives an overview of the experiences of the individuals being observed. This moves onto a focussing phase where patterns can be determined and then the selective phase which enable relationships between the patterns to be clarified. The final stage is saturation point when there is no new information emerging (Angrosino, 2012 cited in Arthur et al 2012). This structure is followed in this study, by firstly observing a session where students are given feedback on their formative assessment, which provides a narrative description of the student's responses. The teacher in this instance is also the observer and therefore a participant and uses this to develop concepts. The series of observations continue as the approach to giving formative assessment feedback is changed and observations are made regarding student's responses to this new approach. This continues until no new evidence is emerging. In terms of observation methods, there are many types. Narrative, and event sampling were the two methods selected for this study. Narrative description provides a rich source of qualitative data but only if recorded objectively. The 'narrative' should be a factual account of what happened in the classroom and what is said. A benchmark to test this, is that anyone reading the observation can gain a clear picture of what occurred without being influenced by the interpretations of the observer. Event sampling allows the observer to 'home in' on events in the classroom, recording the time of the event and a narrative of what happened. This method fits well with this research as the observer's focus is on the topic of formative assessment and not on any side issues. Codes such as highlighting relevant words and phrases during the observation means that it is easier and quicker to detect themes when analysing the information. As with interviews, the Covid-19 pandemic called halt to this for the reasons previously discussed. It is not possible to observe students' responses with cameras and audio switched off!

3.7 (3) Questionnaires

Questionnaires are one of the most common methods used in research. Depending on the structure of the questions, they can produce both qualitative and quantitative data. However, they are mainly associated with quantitative data. Questionnaires usually have three features in common. Firstly, they seek to collect information rather than to give information. Secondly, everyone that receives the questionnaire answers the same set of questions and lastly the questions being asked relate directly to the research topic (Denscombe, 2018). Although, a questionnaire was designed to be used in this research study to gain the opinions of students outside of the main research participants, it was decided not to use this data for the reasons mentioned above in 3.5.

Apart from the issues discussed in 3.5 in relation to the use of quantitative data in a qualitative study, there are other problems with questionnaires. For example, the response rate is typically low. To have enough data to analyse many questionnaires need to be sent out via email or in the post. This relies on the recipient having the time and being willing to complete the questionnaire and then returning it to the researcher. Response rates can be improved by the researcher handing the questionnaire directly to participants and waiting for it to be completed. The problem with this is the respondents may feel pressurised to complete the questionnaire which would be unethical because their right to refuse would be compromised. Additionally, in feeling pressurised, responses may be inaccurate and not a true reflection of what the participant thinks or feels. Denscombe (2017) suggests that there are some things that the researcher can do to encourage recipients to respond without compromising ethical standards. Firstly, by considering the construction of the questions in relation to capabilities of the respondents. If a respondent is confused by the question are unable to answer they will not respond. Secondly motivation is a key factor when completing a questionnaire and the respondents need to see that their contribution has value.

3.8 Ethical Deliberations

The overarching ethical consideration of any research study is that it should not cause harm to any individual. Researchers conducting educational research in the United Kingdom are guided by the principles contained in the 2018 *Ethical Guidelines for Education Research (4th ed)* British Educational Research Association (BERA). These guidelines place a responsibility on the researcher to consider potential ethical issues that may occur and how they are addressed from the conception of their project to the end.

Educational researchers must be aware of the age of their participants and their vulnerability. Consent must be obtained from parents/carers/guardians in writing when carrying out research with participants under the age of 18 (24 in the case of student on an Education Health Care Plan (EHCP)). Consent was obtained in letter format to parents which both the students and parent or guardian signed.

In addition to consent, the participants need to be assured that their anonymity will be protected and that transcripts from the interview transcripts, field notes and observations will be used for the sole purpose of the study. All notes and observations will be anonymised with initials only being used. The setting for the research is not identified in the research study.

The participants are informed that they have the right to opt out of the research at any time without the need to give any reason for withdrawing. "Researchers should recognise the right of all participants to withdraw from the research for any or no, reason, and at any time, and participants should be informed of this right" (BERA, 2018, p.18).

Finally, gatekeepers must be advised of the research and advice taken on whether consent for the research is needed. This should be obtained prior to seeking the consent of the participants. In relation to this research study, the head of Teaching, Learning and Assessment for the college consented through their signature on the research proposal submitted to the Education Training Foundation who provide the funding for this research project. Documentation in appendix 4, 5, 6 and 7.

3.9 Conclusion

This Chapter provides an overview of the philosophical approach adopted within this research study. The justifications for the choice of a constructivist ontology and interpretivist epistemology are described in detail and this sets the scene for the analysis of the data that follows in Chapter 4 and the findings in Chapter 5. The explanations provided in this Chapter, seek to furnish the reader with a level of confidence that careful consideration has been given to the choice of research methods based upon the logic that underpins the study, and that this philosophy is maintained in the Chapters that follow. The next Chapter, Chapter 4, describes the processes through which the data are analysed using a robust process of thematic analysis proposed by Nowell et al (2017).

CHAPTER 4

QUALITATIVE DATA ANALYSIS

TIME TO PAUSE: UNTANGLING MEANING FROM THE CHAOS

4.1 Introduction

Chapter four discusses the analysis and interpretation of the qualitative data that underpin this research study. It also explains the systematic approach in the analysis of the data. It can be argued that a test of the credibility of this research thesis is in the ability of the researcher to make logical and reasonable sense of the data and convey this in a meaningful and trustworthy way to the reader, to demonstrate that the analysis has been conducted systematically and ethically. In the context of this research, the prevailing educational issue being investigated is the extent to which assessment feedback is used and acted upon by students and how approaches to assessment feedback in the GFE college where I work could be improved in practice. The research journey covered so far has explored the complexity of the educational issue at the centre of this study, noting that there are many challenges that teachers and students face in both the giving and receiving of feedback. The peer-reviewed published literature which documents patterns of student's behaviour gained through observation and data collection in the field of formative assessment, discussed in Chapter 2, provides the initial foundation for considering methodology and methods discussed in Chapter 3. To analyse the data the researcher must have a sound grasp of the ontological and epistemological controversies in educational research as these underpin what is to follow in this Chapter. The analysis is guided by an interpretive paradigm as the data being analysed is a collection of narratives based on the participants individual perceptions of their experiences. Using the interpretive framework is appropriate for this study because it allows me to investigate the participants experiences in the context of this research, and the meanings made from them regarding how they have constructed their thoughts about the feedback through formative assessments. The steps involved in analysing the data are described in detail in this Chapter, however, it is not just applying these rigorously that adds credibility to the research findings. It is the researcher's responsibility to be aware of ethical issues that may arise during data analysis process, including their own potential bias and provide an audit trail that evidences how the data has been analysed, translated, organised, and configured into themes. Nowell et al (2017) suggest that researchers should maintain a reflexive journal whilst analysing the data as this provides auditable evidence that adds credibility to the analytical process.

4.2 Thematic Analysis

Analysing the data is an essential step in the qualitative research process because it allows the researcher to identify and describe recurring themes, patterns, and trends thus enabling them to categorise the results so that they can be interpreted, and meanings made. Thematic analysis was introduced as a concept in analysing qualitative data in the 1960's and there are two types, theoretical coding, and thematic coding. Glasser and Strauss (1967) developed a method to thematic analysis using theoretical coding which involves the application of inductive reasoning known as grounded theory. In grounded theory, data are systematically and simultaneously collected and analysed to develop a theory which is 'grounded' in the data as opposed to the testing of a hypothesis (Berterö, 2012). This continuous process of simultaneously collecting and analysing data moves the researcher from exploring specific facts within the data to generate a general meaning.

An advantage of theoretical coding is the flexibility it offers as it can be adapted for the needs of many studies (Nowell et al, 2017). This can, however, be a time consuming, complex, and lengthy process as initially the researcher looks at units of data which can be a word, sentence or paragraph and categorises them using a coding system, so that recurring themes can be established. This method of conducting thematic analysis has a place in qualitative research studies but it has both supporters and opponents. For the research findings to be considered trustworthy, the qualitative researcher must prove that the analysis has been conducted in a systematic, rigorous, and methodical manner (Nowell et al, 2017). There are of course other approaches to analysing qualitative data that the researcher could consider such as thematic coding which is a deductive approach using a predetermined framework to analyse the data. Whilst this would provide for a much quicker analysis, there is the potential for bias as the criteria are pre-determined by the researcher. When deciding on which approach to take to analysing the qualitative data, researchers must question its suitability to ensure that it is aligned with the research stance that has been adopted and the data that are to be analysed and interpreted.

This thesis centres on exploring human experience against the background of a GFE college in which I am the sole researcher interacting with the participants and therefore sharing their experiences. The epistemological and ontological position adopted in this study is detailed and discussed in Chapter 3 and this provides a platform from which to consider theoretical perspectives of both a positivist and an interpretivist approach. It is apparent that as data collection centres on observations and interviews of the participants that an interpretive approach has been assumed, thus allowing me, as the researcher, to gain understanding of student and teacher participants behaviour in its context. For example, I recorded students' responses to the feedback through one-to-one discussion and observed their behaviour during workshop sessions aimed at giving them time and space to improve their work (Clarke, 2001, 2014). This provides a rich source of data because each participant is an individual, they act differently and the way they behave will have been influenced by many factors, such as the time of day, the location, their past experiences and their emotions. In this study reality is not to be taken as fixed or singular. An individual's view of reality will depend on their experiences and how they use these to construct their thoughts, ideas, and meanings and these are often full of contradictions. This can be seen in Shakespeare's Macbeth (2015) when Banquo meets the witches for the first time and he is puzzled by their appearance "'You should be women," he says, "And yet your beards forbid me to interpret that you are." (Act 1, scene 3). The confusion for Banquo is that although, the witch's appearance is bizarre, the dresses indicate that they are women, this is his experience of women, but the appearance of the beards means that he cannot interpret the witches as men or women. This example from literature illustrates a dilemma often faced by the educational researcher as qualitative data is laden with such contradictions. The skills in drawing conclusions that can be considered both credible and authentic resides in the researcher's ability to prove that they have competently analysed, evaluated, and synthesised the data.

The complexity of the data collected lends itself to the thematic analysis approach using thematic coding due to the variety of ways an individual would have responded due to reasons already mentioned. It provides a logical framework that can help to make sense of it all. As Nowell et al (2017) state, there are many advantages to using this method, not least the flexibility and freedom that it offers to the qualitative researcher, but also the straightforward structure that it affords to researchers who are new to the research community. It offers a framework that is accessible and understandable. The researcher is free to select their own coding method, whether this be computer based or simply using different colour highlighters to detect themes and patterns. This facilitates comparisons between the various sources of data, thus allowing the researcher to make connections and see emerging patterns. Conversely there are disadvantages. As already discussed, this can be a highly complex time-consuming exercise and the identification of too many categories will make the data difficult to interpret. A second point is the issue of bias, and this must be considered in the context of this research. As discussed earlier, Banquo's stereotypical version of women meant that he was unable to interpret the witches' gender and he was unable to conclude if they were men or women. Not allowing such pre-conceived ideas to influence the interpretation of the data is a challenge every researcher faces, as failure to interrogate such phenomena will mean that others will view the findings with scepticism. To address this, researchers should continually observe and question their findings whilst analysing the data to ensure that their own knowledge and/or ideas do not distort or overly influence the findings.

4.3 Trustworthiness in Data Analysis

Establishing trustworthiness in qualitative research is key to the research being accepted by the wider community. Nowell et al, 2017, suggest five criteria that the research needs to meet to be considered trustworthy – credibility, transferability, dependability, confirmability, and audit trails. Credibility can be achieved through the breadth of the research data collected. Triangulation is key, using different methods of data collection that can be compared and cross referenced. This enables the data to be interrogated and interpreted in diverse ways so that credible conclusions can be drawn. This lends the research an air of authenticity and shows the reader the journey that the researcher took from the beginning to the end of the study. In terms of transferability, the researcher needs to ask themselves if the research would resonate with someone working in a similar environment. According to Nowell et al, 2017, for the research to be considered dependable, the researcher needs to demonstrate that a logical process has been followed which is traceable and clearly documented, and that this is confirmed in the in the conclusions. The researcher should continually refer to the underpinning philosophy of the study by making regular reference to the reasons for the choices they made throughout the study with a clear rationale for each decision. Finally, to evaluate trustworthiness, the findings should be auditable. A question raised here is, would another researcher given the same data, perspective and situation arrive at the same or at least very similar conclusions (Nowell et all, 2017).

4.4 Steps for Data Analysis

Nowell et al (2017) in their examination of qualitative data analysis suggest that there are six steps or phases in conducting thematic analysis and these provide “a practical and effective procedure for conducting thematic analysis that aims to meet the trustworthiness criteria outlined by Lincoln and Guba (1985)” (p.4). The steps are divided into phases; Phase 1: Familiarising yourself with your data, Phase 2: Generating initial code, Phase 3: Searching for themes, Phase 4: Reviewing themes, Phase 5: Defining and naming themes, Phrase 6: Producing the report. As Nowell et al (2017) posit, the phases in data analysis, although presented in sequential order, are not necessarily linear and quite often there will be an overlap between each stage as the researcher moves backwards and forwards between the phases. Data collection and data analysis are inextricably linked and although in this study in-depth analysis of the data occurs after the data have been collected, inevitably themes did begin to emerge during the process. This meant that as the data collection process continued, I was able to stay alert to similar or conflicting themes which provided insights into what might or might not be revealed following the formal analysis. Reflexivity was used to check that these emerging themes were not having an influence on the conduct of future interviews and observations.

The six phases above suggested by Nowel et al (2017) provide a helpful framework for the researcher to use for data analysis and although connected there is a distinct difference between data analysis and the interpretation that follows the data analysis. Data analysis involves immersion in the data to construct codes and themes which will be continually changing. Evidence is triangulated and generalisations applied as well as noticing points where the evidence conflicts or is muddled and confused. Interpretation involves the researcher in making sense of the data and conveying this in a trustworthy and meaningful way. As the researcher is both the analyser and the interpreter, demonstrating that rigorous standards have been followed is key to establishing trustworthiness of the research, and Nowel et al (2017) provide an explanation for establishing trustworthiness in each phase of thematic analyses and these are discussed in the following paragraphs in the context of this research.

4.4 (1) Phase 1: Familiarity with the data

In Phase 1, Nowell et al (2017) argue that regardless of the methods used to collect the qualitative data, researchers need to immerse themselves in the data by repeatedly reading through it and searching for emerging patterns and themes (Braun and Clarke, 2006). This immersion in the data brings the researcher closer to the data so that they start the journey of understanding what the data sets are telling them. I read through the interview transcripts, and observation notes as soon as possible after a session and revisited them several times. I reflected on what had occurred and recorded my thoughts in a reflective diary. This helped to make sense of what was seen and/or heard and I noticed commonality and patterns emerging from the participants in recounting their own experiences. There began to emerge in the interviews with the student participants a pattern that was reflected by most participants in relation to having class time to react to feedback. It is to be expected that similarities will exist in students' views, and it is from these that generalisations can be made. This does not mean that the participants individuality is lost, but it does help to identify and develop recurring themes and often the views of one participant can help to shed light on the ideas of another participant.

In recording my reflective thoughts, I started to notice areas where the data sets were conflicting and where data could perhaps be discounted due to lack of supporting evidence. Unsurprisingly, when reading through the interview and observations notes I found myself linking this to expert opinion from the literature review. I started to notice evidence in support of some of the theories discussed in Chapter 2 and times where the participants responses did not support the opinions of leading researchers in this field of study. Reading, noting, and reflecting on the data as it progressed allowed me to start to bring order and structure to the data and consider the themes that were emerging.

4.4 (2) Phase 2: Generating initial codes

Fulfilling the requirements of Phase 1 generates a rich foundation of interesting and recurring themes which moves me onto Phase 2 of developing ideas of what the data sets are telling me. Coding can only occur if the researcher has an in-depth knowledge of their data and have an idea of how the emerging themes can be coded and grouped. This process moves the researcher from the array of ideas developed from reading and rereading the data to the development of ideas about what is going on in the data (Nowel et al, 2017). This early stage of coding allows the researcher to conduct a closer exanimation by naming patterns that emerged in Phase 1. Each piece of data is broken into individual components, and it is at this stage that similarities and differences become more apparent, thus providing the researcher with deeper insights into what the data are revealing. Nowel et al (2017) suggest that using a coding framework adds credibility to the claims made by the researcher as this provides an audit trail of evidence. Computer programs can be a useful tool to assist with the generating of codes, but as this is a small-scale study involving 18 students and 5 teachers with me being the sole researcher, I read through interview and observation transcripts, noting, and underlining key words and phrases. Each similar word or phrase was given a letter code and plotted onto a table (Fig 6). To capture the essence of the what the participants said/did and to maintain authenticity, I derived the code names from the participants actual words in the transcripts. This provided a framework for moving into Phase 3 as it helped to reduce the volume of data by concentrating my attention on significant aspects of what the data were revealing and allowing me to discount irrelevant information. Examining the data in this systematic way adds validity to the data analysis as each piece of data is given equal attention, thus ensuring that each participants views are represented in the final analysis.

CODES	WORDS/PHRASES USED BY TH PARTICIPANTS	FREQUENCY	LOCATION REFERENCE
a	What has been done well/met the criteria/defines what I have achieved	~~////~~ ~~////~~ //	I/V A, D, E, F, K, N, P, T, W. Obs 5
b	Where the gaps are/more to do/know how to improve my work	~~////~~ ~~////~~ ~~////~~ ///	I/V A, D, F, G, K, O, P, R, S, T, U, V, W. Obs 5
c	Next steps/closing the gap statement/close the gap	~~////~~ ///	I/V A, D, E, I, J, K, L, S. Obs 5
d	Specific/linked to LO's or success criteria/clear	~~////~~ ~~////~~ /	I/V A, D, I, S, U, W. Obs 1, 2, 3
e	Verbal feedback	~~////~~ ~~////~~	I/V A, D, E, F, J, L, U, V. Obs 1
f	Prefer/like written feedback/written feedback	~~////~~ ~~////~~ /	I/V A, D, F, J, K, L, N, P, S, V
g	Refer to it/go back to it (the feedback)	//	I/V A, J
h	Comparison/compare/comparing/competition	~~////~~ //	I/V A, D, M, O, V, W. Obs 5
i	Motivates/motivated/motivator/motivation	~~////~~ ~~////~~ ~~////~~ ~~////~~ ////	I/V A, C, K, L, M, O, Q, R, S, T, U, V, W. Obs 1, 4, 6
j	No point in a grade	/	I/V A
K	Stressed/anxious/worried/anxiety	~~////~~ ///	I/V A, I, P, Q, R. Obs 1, 2
l	Smug/overconfident	//	I/V A, R
m	Upset	//	I/V A, M
n	Class time to make improvements/time in class	~~////~~ ~~////~~ ~~////~~ ~~////~~ ///	I/V A, B, D, F, H, I, J, K, L, O, P, R, S, V, W. Obs 1, 2, 3, 4, 5, 6, 7, 8
o	I know exactly what to do/to improve/ I can see what I need to do/I know where I went wrong	~~////~~	I/V B, N, O. Obs 1
p	Not everybody does it the same/inconsistency	//	I/V B, Q
q	I wouldn't bother to go higher	/	I/V B
r	Make improvements/helps me to improve	~~////~~ /	I/V B, C, F, I, N
s	Immediate feedback/react to feedback immediately/quickly/as soon as I get the feedback I want to make improvements/immediate improvements	~~////~~ ~~////~~	I/V C, D, F, I, K, M, R. Obs 2
t	1:1 support/tutor discussion	~~////~~ ////	I/V C, E, T, Obs 1
u	Building/positive relationships	~~////~~	I/V C, E, F
v	Prompts/questions	~~////~~ //	I/V C, K, Q, R, S. Obs 1, 5, 7, 8
w	The grade is not necessarily the motivator	/	I/V C
x	Time/Time is the biggest factor	////	I/V C, E Q. Obs 1, 6, 8
y	Make their own decisions	/	I/V C
z	Peer marking/feedback	////	I/V D, E. Obs 2, 4
aa	Grades at the end of a unit but not on formative assessment/grades given at the end of a topic	//	I/V D, S
bb	Grades - Don't push themselves if passed/do not make improvements/not as encouraged to continue/Don't try to go beyond that (the grade) because there was no expectation	////	I/V D, E, T, W
cc	Highlighting helps to reduce the number of comments needed	//	I/V D, G
dd	A grade which I have realised is detrimental	/	I/V E
ee	Formative assessment	///	I/V D, E, H
ff	React to it (feedback) while it is fresh in their minds/if you leave it for ages you forget it/difficult to remember/comes back too late	~~////~~ //	I/V F, G, J, L, N, O, T
gg	Find feedback helpful	/	I/V G
hh	Content is more important	/	I/V G
ii	Judges/judging	//	I/V I, P
jj	Helpful/Like having a grade/score	////	I/V M, N, Q,
kk	Feel rubbish/bad	///	I/V O, R, V
ll	It's good not to have a grade/because there's no grade it makes me feel a lot better	///	I/V O, T, W
mm	You wouldn't know this (how to improve) from a grade/score	/	I/V
nn	Mental health problems	/	I/V W
oo	Feeling overwhelmed	/	Obs 1
pp	Good response to feedback/excellent use of feedback/significant improvement/showed improvement	~~////~~	Obs 1, 3, 4
qq	Advice not acted on/no improvements	///	Obs 1, 2
rr	Despondent	/	Obs 1
tt	Lack of grades/No grades given/omission of grade not mentioned/No one asked what grade they got/No discussion around grades	~~////~~ /	Obs 1, 3, 4, 5, 6
uu	Would not bother to make improvements (in own time). Wouldn't try as hard	~~////~~	I/V D, E, T, W
vv	Self-regulation/autonomy	//	Obs 6, 7

Figure 6: Codes generated from the data

4.4 (3) Phase 3: Searching for themes

In this stage the researcher moves towards grouping the coded extracts into potential themes by looking at trends and patterns that arose during the coding phase. It is predictable that when coding the data that the researcher begins to see themes emerging, some of which will have been apparent throughout and others that will be a surprise as it only in collating the data using codes that some things that have perhaps been hidden begin to emerge. This emphasises the importance of giving each piece of data equal attention as not doing so will mean that some significant data may be overlooked which will adversely affect the final analysis. Nowell et al, 2017cites DeSantis and Ugarriza (2000, p.362) definition of the concept of a theme. ‘A theme is an abstract entity that brings meaning and identity to a recurrent experience and its variant manifestations. As such, a theme captures and unifies the nature or basis of the experience into a meaningful whole’ (p. 8).

Following the inductive approach, the themes identified in this study are derived from the codes that reflect the participants experience/s. The analysis is driven by the data rather than on an existing research framework or theory. Nowell et al (2017) advise that the classifications given to each group should be well defined and distinct from each other, but still relate to the overall research question. Bearing this in mind, I revisited the interview and observation transcripts and attempted to collate the codes with my first ideas as to how they may be grouped into themes. This involved a lengthy process of highlighting parts of the data assigning colours for data that was similar and transferring them onto a new document. This inspection gave me a greater insight into patterns that were emerging and an appreciation of new meanings that were evolving. This led to a reflective exercise which caused me to revisit the transcripts to ensure that nothing had been missed in the initial coding stage. It was in doing this that I realised that the data analysis is not linear, as I found myself moving between the different phases suggested by Nowell et al (2017), revising codes, themes, and noticing sub themes.

4.4 (4) Phase 4: Revising the themes

The lines between Phases 3 and 4 merged as I found myself reviewing the data extracts for coherence as themes began to develop. Nowell et al (2017) suggest that in this phase “inadequacies in the initial coding and themes will be revealed and may require various changes” (p.9). This involved both pruning and expanding the codes as themes that did not have sufficient data were dismissed and a new code was added on revisiting the data. Refining of the themes took place by firstly revisiting the codes to ensure that the patterns identified were based on reasoned evidence and then each theme was considered in relation to the data as a whole. It is in this Phase that data are reduced into more manageable themes that sufficiently reflect the participants experiences and tell the overall story (Nowell et al, 2017).

4.4 (5) Phase 5: Naming the themes

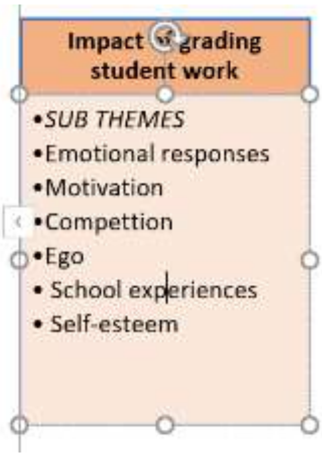
The aim of this phase is to provide an analysis of each theme that conveys the story of each theme (Nowell et al (2017). Four themes emerged from the coding process (Fig 7):

1. Impact of grading student work
2. Components of feedback
3. Feedback strategies
4. Time to act on feedback.

Impact of grading student work	**Components of feedback**	**Feedback strategies**	**Time to act on feedback**
• *SUB THEMES*	• *SUB THEMES*	• *SUB THEMES*	• *SUB THEMES*
• Emotional responses	• Improvement and growth	• Prompts	• In class
• Motivation	• Close the gap	• Immediate feedback	• One to one support
• Compettion	• Strengths	• One to one support	• Motiavtion/self-regulation/autonomy
• Ego	• Next steps	• Positive relationships	• Timing
• School experiences	• Misconceptions	• Success criteria	
• Self-esteem	• Written	• Highlighting work	
	• Motivation	• Timely	

Fig 7: Themes and subthemes

4.4 (5.1) Theme 1



This theme is defined by students' discussion about grades and evolved from the interview transcripts where they compared the feedback they receive in college with their school experiences. Many spoke about the focus on grades in schools, particularly in the two years prior to taking their summative General Certificate of Secondary Education (GCSE) exams. They discussed different emotions and what the grades told them about their ability and the competitiveness this caused in peer groups. Descriptions included words such as 'stressed', 'worried', 'smug', 'upset' 'awful'. In contrast many commented that they like it when they receive marked work without grades in college as this allowed them to focus on what was needed to improve their work. This was subsequently reflected in teacher interviews and the different responses they had from students depending on whether a grade was awarded to a piece of work. Observations of students in workshops gave further perspective to the different responses from students when a grade was absent from the formative assessment feedback. In each of the eight observations, grades did not feature in conversations with the teacher or between students and surprisingly no one mentioned the absence of grades. Motivation was the most common word used in the transcripts occurring in varying forms (motivates, motivated, motivator, motivation) twenty-four times. When talking about grades this was used to describe negative feelings of motivation. For example, students suggested that there was no point in trying to go further once a grade had been given and a teacher commenting that only students who had not passed an assessment made improvements. The competitiveness of grades also featured with students commenting on the negative impact this had on relationships with peers. When coding the transcripts, I recorded three times where students responded positively to grades, saying that these helped them to know the level they are working at. However, I discounted these from the theme because there were contradictions to this, with one of the three students subsequently commenting that they preferred not having a grade and a teacher noting that grades did not motivate the students to make improvements.

4.4 (5.2) Theme 2

Throughout the student interviews there was a common thread of what to them represented good feedback and this quite often overlapped with Theme 1, particularly in relation to motivation to act on feedback. I recorded eighteen incidences of students saying that the feedback needs to tell them how to improve and this went hand in hand with knowing the progress they had made against the criterion/criteria, where they had misunderstood something and prompts to close the gap. Each time a student said that if they had a clear understanding of these elements they felt motivated to make improvements. It was only when the feedback was not explicit that students felt demotivated. There was a general preference for written feedback with students commenting that they could refer to this when needed and see the progress they are making between assessments. Verbal feedback was mentioned ten times in the transcripts, but this was discounted on the basis that students frequently linked this to the written feedback, stating that they liked to have a conversation with the tutor after the written feedback had been read. The other narratives I discounted related to inconsistency, confirmatory statements such as ‘well done’ and written feedback being too much, because they only occurred once in the narratives and there was no supporting evidence.

4.4 (5.3) Theme 3

Feedback strategies

- *SUB THEMES*
- Prompts
- Immediate feedback
- One to one support
- Positive relationships
- Success criteria
- Highlighting work
- Timely

The student interviews produced a rich source of data, not only of what students felt about the content of good feedback but also strategies that they like and do not like. By far the most popular strategy was to have time in the class to respond to feedback and because this has its own special qualities, I decided that it should be given its own individual theme. There is of course an overlap, but the differences justify the reasoning for this. The strategies discussed in this theme are in essence the way the feedback is structured and communicated to the student. Students like quick references, such as highlighting the work in places where a criterion has been met and using a different colour for gaps/misconceptions. Written feedback should include prompts as to how to close the gap with many students suggesting ways of doing this – using questions, examples, signposting to resources and reading material. Overlapping with Theme 4- time in class, is the students desire for individual teacher support, with verbal feedback supporting the written feedback. A pattern emerged in relation to the timing of feedback which also crosses over into theme four. Students used words and phrases relating to the immediacy of the feedback suggesting that this should be as quickly as possible after a piece of work has been submitted and before learning has moved on. There was less discussion in the interview transcripts about emotional responses to feedback, but this was not discounted as the points made by those that mentioned their feelings was strong and to dismiss them would be to do a disservice both to the data and the students. One student mentioned being despondent as she felt the feedback was too much and that ‘she never got anything right’. Two others described the feedback they received as judgemental which caused them to worry before a piece of work is returned. The strategy that was discounted was the giving of a grade. The lack of supporting evidence to warrant inclusion of this has been discussed in Theme 1.

4.4 (5.4) Theme 4

Having time to react to feedback in class was a dominate theme in the transcripts. Students felt that this was the key to acting on feedback. Many mentioned that lack of time led to feeling demotivated. The motivation to make the improvements is inextricably linked to being given time in class to read, reflect and react to the feedback. This is evidenced within the student and teacher interviews and the observations of students responding to feedback in class. When students are expected to make the improvements in their own time, they expressed negative opinions, stating that they probably wouldn’t make the improvements or only make a cursory attempt at improving the work. Overlapping with Theme 3 is the timing of feedback. This is an important element to the students. Timely feedback was described using words such as ‘immediate, quickly, as soon as possible’. One student extended this by saying that the timing of work being returned is the biggest factor in making improvements. Similarly, students made comments that if the feedback was not timely then they would forget the learning which would make it difficult to respond to the feedback. Hand in hand with this, is the availability of the teacher to verbally expand on the written feedback through one-to-one discussion. The value of time in class was further strengthened from the observation transcripts. I gained a sense of students developing skills of self-regulation and autonomy, alongside their academic development. For example, in Observation 6, thirty minutes was allocated at the beginning of a lesson for students to react to feedback on a piece of work completed in the previous lesson. After thirty minutes, students were still working on their improvements, and they requested to have more time which was agreed. In my reflection on this, I noted that whilst at first, I didn't want to give the extra time because of the impact this would have on the lesson I'd planned to deliver, I quickly realised that this was more valuable to the students as they went beyond the feedback, discussing with each other their work to make further improvements. Had I insisted on stopping after the thirty minutes and proceeding with my planned lesson, a rich learning opportunity would have been lost.

4.5 Phase 6: The Report

Each phase in the data analysis has led to this final Phase 6, writing a report that conveys in a coherent manner the final analysis of the data. The thematic analysis that was applied to the interview and observation transcripts have been key in determining the experiences of all the participants, resulting in four themes. 1) impact of grading student work, 2) components of feedback, 3) feedback strategies and 4) time to act on feedback. Whilst each theme has its own definition as described in Phase 5, there are aspects that overlap across the themes which reflect participants general attitude to all types of feedback, and they are therefore relative to each other. The analysis includes direct quotes from the student (S) and teacher (T) interviews. Observations are referred to as Obs 1, 2 etc. Sample interview and observations can be viewed in appendices 2 and 3.

4.5 (1) Impact of grading student work

Grades and scores on student's work are controversial subjects and many researchers suggest that these are detrimental to learning (Butler 1987, 1988, Black and Wiliam 1998, Kohn 1999, 2011). The student participants in the context of this research are aged 16 – 19 years and they come to the General Further Education college with a great deal of experience of being graded and scored:

> **S1** - *"From year 9 grades were the focus. Lot of stress if a poor grade. Smug if good".*
>
> **S2**– *"Up to year 7 teachers used 'emerging, securing and mastering'. From year 7 SIR to mark our work. S- Strengths, I- Improvements, R- response. Until year 9 then number/letter grades".*
>
> **S3**- *"Always grades in school. Always talking about exams. Always told if you don't achieve a certain grade you won't be able to do something".*
>
> **S4** - *"Only got scores, ticks or cross in school – made me feel like I didn't want to do the work".*
>
> **S5** - *"At school we rarely got feedback unless it was a test, like in maths. You always knew what grade you were working at".*
>
> **S4** - *"If I get a good grade it boosts my ego and I feel I know it all".*

The participants' narratives reflect the traditional approach to education adopted by schools and colleges in the UK. Grades and scores are a primary feature of feedback as students enter their General Certificate of Secondary Education (GCSE) study programmes at year 10 (age 14). GCSE's are graded from 1 – 9 (prior 2017 G – A*) with 1 – 3 being considered below a pass, 4 and above a pass and 9 being the highest possible score. To predict potential GCSE achievement, teachers grade formative assessments so that students can strive to meet or improve their predictions. This grading trend continues as they enter college so that predictions can be given for the course they undertake. This is mostly at Advanced (A) level courses that attract grades from pass to distinction* or grades D – A*. Interestingly, the narratives of the participants reveal that they do not value this approach, with one student commenting that they do not see the grade as feedback, which reinforces the point made by Hattie and Clarke (2019) and Ramaprasad (1983) that grades are not feedback. Two students mention how grades play to the 'ego' by stating that she felt 'smug' or 'overconfident' if they achieved a good grade. Butler (1987, 1988) investigated the value of ego-related feedback concluding that there is little incentive on the student to make improvements when feedback is related to the ego rather than the task.

Grades evoked different emotional responses regardless of whether the participant considers themselves to have achieved a good grade or a bad grade.

> **S4** - "*Grades either stress me out or make me feel overconfident".*

> **S6** – *"The teacher read grades out in class. I got a 'U' and other people in the class teased me. I felt upset".*

> **S7** - *"Having a grade can make you feel really rubbish throughout the day".*

> **S5** - *"Knew what grade you were working at and this meant you didn't try to go beyond that because there was just an expectation that would be the mark you would get".*

> **S8** - *"If the grade is bad – initial grade 'D' you don't feel you want to continue".*

The participants largely saw grades as having a negative impact on their emotional state, motivation, and mindset. Student 5's experience of grades is that the grade defined her level of intelligence, and it was not possible for her to go beyond that. Dweck (2006, 2017) describes this as having a fixed mindset, as regardless of the grade awarded, students connect their grades to their level of intelligence. This is detrimental regardless of whether a student achieves low or high grades as the students achieving high grades see no need to improve and those with low grades feel that it is impossible for them to improve. This was indicated by student 9 who despite high grade predictions believed that this was beyond her capability.

> **S9** - *"I started my GCSEs in year 9 and I got high predictions which was quite scary because I didn't think I was capable of that and I didn't get those grades".*

Self-efficacy refers to an individual's belief in themselves to perform on a task and exert control over their own motivation. Student 9's self-efficacy in relation to her potential GCSE achievement was low as she had previously mentioned that she felt no motivation to improve if she achieved a C grade on an assessment and this fixed mindset ultimately affected her final achievement. Ryan and Deci (2000a) in their discussion on motivation explore the relationship between extrinsic and intrinsic motivation, concluding that there is a relationship between the two, but extrinsic motivations, such as grades, scores, praise, and punishment rarely have the desired effect on students. As Kluger and DeNisi (1996) established, not all feedback has a positive impact on achievement and clearly grades can be seen to be a poor example of feedback.

> **S3 –** *"I think that it is good not to have a grade because you just look at the score you've got rather than what you could improve".*

> **T1** – *"Feedback includes a grade which I have realised is detrimental because students only make improvements if they have not passed the work. Anyone getting a grade does not make improvements. This is because there is no requirement for them to do so".*

> **S10 –** *"If I got a grade on first submission and I got say a 'C' I wouldn't bother to go higher".*

> **T2** – *"Students don't push themselves to merit/distinction if they have a pass".*

This understanding might result from the focus placed on grades leading up to the GCSE exams. As student 10 highlights, grades do not tell a student anything about what they have done well in an assessment or where their gaps are, they simply provide an overview of the teacher's assessment of the work. If students are not able to follow this up with the teacher, they will not know how to improve.

> **S10 –** *This* (referring to grades) *was a big problem at school because people wouldn't talk to the teacher about it* (their grade)*, so they never knew how to improve".*

The question to ask here is who has the balance of power in the classroom. It doesn't sound like a cohesive environment has been fostered if the students are fearful of talking to the teacher about the underlying reasons for the grade awarded.

Student 6 mentioned achieving a 'U' (ungraded) on a science test and being teased by her classmates when the teacher read everyone's grades out in class. When student 6 describes her feelings about her low grade being read out to the whole class, it is difficult to understand the teacher's motives for doing this. Although, impossible to judge from the interview, this does raise the issue of bias and whether the teacher in this instance holds prejudicial views either consciously or unconsciously about student 6 and other students which impact on grades awarded or in this instance, the humiliating way that the grade was communicated. (Wiliam 2022), Malouff and Thorsteinsson (2016) found that physical characteristics that often attract prejudice such as weight or ethnicity can unfairly influence the grade awarded to a piece of work. A further issue that the student participants identify is the affect that grades have on friendships as students tried to outperform or dominate each other.

> **S2** – *"Caused competition between me and my friend as we tried to outdo each other".*
>
> **S7 –** *"There were lots of talk about who got what grade and lots of comparing, it was awful, particularly if you got a low grade".*
>
> **S1 –** *"I felt bad when I got a 'C' when other people got an 'A*'. I tried to focus on what I got rather than compared myself to others, but sometimes I did get upset".*
>
> **S4**- *"We would all talk about it* (the grade) *and compare ourselves with each other…sometimes when people got a better grade you felt bad".*
>
> **T2** – *"Students compare themselves to others…When I talk to them they mainly focus on the grade and not the comments".*

Kohn (1999a) describes grades as creating a toxic environment with the competition these create being the most damaging ingredient to students' relationships with each other, their self-esteem, and their learning. Reddan (2013) offers a different view implying that grades promote healthy competition and students in his study comment on the positive effect on group cohesion whereby students with lower achievement sought advice from higher achieving student. This is not a result of this study as students actively avoided peers with higher grades or teased those with low grades. Hattie and Clarke (2019) suggest that for feedback to be motivational it must focus on the qualities of the students work rather than promote competition between each other. The only comparison that should be made is by the student on the progress that they are making between each piece of work.

It is evident that the participants have negative experiences of grades, and these have a direct impact on how they feel about their ability, regardless of the grade achieved in assessments. This understanding appears to develop as students commence their GCSE study programmes. The students know that achievement at GCSE level will determine their next steps into further education or training. The highest performing students choose (mostly) to progress into sixth form to study academic subjects, whereas those achieving average to low grades will either go to a further education college to study a vocational subject or into a work-based apprenticeship. This understanding may go some way to explain why student participants in this study view grades negatively as they perhaps see themselves as not being good enough at age sixteen to progress into higher academic study. Although a possibility, this is a presumption that is not investigated in this study. However, what is clear is that grades do not foster student's motivation to make improvements to their work, they simply reaffirm to the students their expectations of themselves. Data from this study suggest that grades serve to fix students' mindset so that they do not see growth as a possibility. Having the motivation to improve does not stem from achieving a grade as this does not tell the students anything about their performance or the progress they are making which moves into the next theme, components of feedback.

4.5 (2) Components of feedback

The evidence in Theme 1 suggests that grades do not motivate students to make improvements to their work and are a poor form of feedback. This theme explores the participants view of what feedback is and should be if it is to be of any use to them. One of the overriding concepts that emerged from the data analysis is that feedback needs to tell students how they can improve.

> **S12** – "*I like to know what I need to improve on".*
>
> **S13** – *"Feedback that tells what I need to improve is helpful".*
>
> **S7** – *The feedback is given in detail so you know what to improve. Not just a simple statement so I know how to improve my work".*

The above sentiments were expressed by most participants with students and teachers in agreement that this is a crucial element. Hand in hand with this, participants commented that they need to know what they have done well, where they misunderstood and how to close the gap and their next steps. Similarly, to other authors and researchers, Hattie and Timperley (2007) suggest the feedback must provide students with answers to three questions – Where am I going? How am I going? And where to next?

> **T1 –** *"I tell them where they have met the criteria and how. Any gaps are noted and what to do to close the gap is explained".*

> **S1 –** *"Tells me exactly what has been done well and where the gaps are and next steps, not vague, quite specific.*

> **S8 –** *"Feedback should tell me what I have done well, where the gaps are and where I need to improve".*

The participants understanding of the essential ingredients of feedback reflect the work of many researchers discussed in Chapter 2, the literature review. In his definition of feedback, Ramaprasad (1983) makes an interesting point that feedback is only feedback if it is utilised to close the gap, a point highlighted in the transcripts of participant student 5.

> **S5** – *"Feedback should define what I have achieved, and it should be obvious what I need to do to improve".*

It is apparent that the student participants know the information that feedback should contain if they are to act upon it, and when these three steps are followed the participants mentioned being motivated to do so.

> **S13 –** "*When I can see where my gaps are I'm motivated to improve".*

> **S1** – *"When feedback says that I have done well on some aspects this motivates me to improve because I know that I haven't got it all wrong".*

> **S14 –** *"Knowing exactly what I need to do motivates me as I want my work to be perfect and I want to correct my mistakes while it's fresh in my mind".*

> **S15 –** *"When the feedback is clear then I am motivated because I know what I need to do".*

Motivation in this Theme centred around the participants own wish to make the improvements. Feedback in this format does not play to the participants ego but their intrinsic desire to make the improvements. They have not been ranked by a grade or score, but on the merits of their work. The omission of a grade means that the student who perhaps has historically received a low grade on an assessment can see that their work is valued rather than judged. Similarly, a high achieving student can see that there is room for improvements to be made. Dweck (2006, 2017) describes this as having a growth mindset, a belief in oneself that ability is not fixed, but can grow by embracing and engaging in challenging tasks. The willingness to do this is complex as it is not just about being praised and rewarded for ability, as extrinsic motivation as already established in this study has very little effect on student motivation. As Dweck (2016) points out it is the intrinsic desire to do something that is more powerful, and this is achieved by students seeing that the effort that they put in to achieve the learning outcome/s is valued by their teachers. The research undertaken by Butler (1987, 1988) on the impact of intrinsic and extrinsic motivators on student performance confirms this, by concluding that when students receive only task involving feedback (written comments) they were more motivated to make improvements than those given ego-involving feedback (scores). To be motivated to act upon feedback Kluger and DeNisi (1996) established that students need to have a clear idea as to what the goal is and to be committed to achieving that goal which moves the analysis onto theme three of feedback strategies.

4.5 (3) Feedback strategies

Many participants describe not only what they thought the content of feedback should be, but also ways in which this could be structured. A recurring concept is the use of prompts.

> **T3 –** *"My feedback is individualised with prompts/questions".*
>
> **S13** – *"I liked the table the teacher drew to direct me towards what I needed to do because it prompted me as to what was missing".*
>
> **S3 –** *"Prompts help as they tell you what you need to do rather than hoping for the best. Make prompts depending on what needs to be done".*
>
> **S15 –** *"The prompts help when it says look on a certain page in the textbook to find info, that is more helpful than just saying read your textbook".*

When feedback statements are comprehensible and give clear direction, this empowers the students to act upon it. In observation one, student 1 was finding the criteria confusing as she had missed several lessons and was at a loss as to what to include in the assessment. Hattie and Clarke (2019), Nottingham and Nottingham (2017), and Wiliam (2018b) all debate the importance of students having a clear understanding of lesson intentions and success criteria. Without this key information, it is almost impossible for students to achieve the intended learning. Although, more relevant to providing time in class to act on feedback, I found this time with KA invaluable as I could see immediately from my discussion with student 1 what the problem was, and I was able to explain the task and expand her thinking by using questions and examples to prompt. The result was a much-improved piece of work. Similarly, observation five records two students who are usually reluctant to act on feedback, using the prompts to make improvements.

> Obs 5 **–** *"**S16** and **S3** rarely make improvements but this time they reluctantly used the prompts which were tailored to their needs. Both need encouragement to read, and sections of the textbook were highlighted to them rather than a whole chapter. JV benefitted from example prompts".*

It is unclear if the motivation came from the prompts, having the time in class to make improvements or the fact that they were expected to make the improvements. The explanation is probably that it is a combination of all three and this is where there is overlap to theme four. Clarke (2001, 2014) endorses the use of prompts stating when these are personalised and structured in relation to the student's needs, they are more likely to act upon them. However, what perhaps was more apparent with these two learners was not so much the availability of the teacher to assist them with their improvements during the in 'time in class', but more the fact that they had no choice other than to act upon the feedback. Wiliam (2018) argues that formative assessment is and should be challenging. It often places students in uncomfortable situations, but if it is not challenging then there is no learning. Students need to be active participants and by placing the two students in an environment where there is a certain amount of peer pressure because they can see their peers working and they know that the teacher's expectation is that they are too. They really have little choice other than to do the work in situations where they are not only required to act upon the feedback but are seen to be responsible and accountable for improvements made.

Returning to the point of learning intentions and success criteria, it is often when marking student work, that teachers notice patterns in mistakes being made across a group and this raises the question of the original criteria that were set for the work. Prompts to direct students are beneficial, but if the success criteria or goal has not been understood then prompts will be of little use. To avoid confusion Nottingham and Nottingham (2017) highlight the importance of setting success criteria that help students to see what success looks like in an assessment. In other words, it needs to be explicit, students need to have a clear understanding of what is expected. Observation three underlines this point when I reflected on student behaviours in a workshop where they were being asked to make improvements to their work based on peer feedback.

> Obs 3 – *"Was the success criteria clear? Some students found it difficult to give peer feedback as they were unsure of what they were feeding back on. This meant also that they had not understood what to do for their own piece of work".*

Evidently it was difficult for the students to make any meaningful improvements to their work thus reinforcing Kluger and DeNisi's (1996) point that to be committed to achieving the goal, students need to know what the goal is. In Observation 1, student 17 came to class quite despondent. She had a piece of work returned and felt that she never got everything entirely right. When discussing this it became apparent that she had mis-interpreted the criteria, and this had sent her down the wrong path. Once this was broken down and explained, although she did not feel entirely positive, she was willing to have a go at making the improvements. This conversation emphasises the point made by Wiliam (2018) that there is no point in telling someone that they need to improve without providing them with the steps to do so. In the next lesson the student's attitude showed considerable change.

> Obs 4 – *Fantastic, **S17** has a smile on her face. She says she feels more confident, and the work shows significant improvement".*

The value of making time and putting in effort to support students in making improvements is another aspect that the participants discussed in interviews with many feeling that this is fundamental to the feedback process and building positive relationships.

> **T3 –** *"One to ones, sitting with the students, talking to them about their work builds relationships…The biggest motivator is the way this helps to develop positive relationships. The student wants to improve…It is more about convincing them* (the students) *that they can achieve more. This is all about the relationship you build".*

As discussed in Chapter 1, Coffield (2009) describes the student - teacher relationship using the analogy of a tandem bike. At first the teacher is in front putting in all the effort to propel the bike forward and over time as the student - teacher relationship develops the student takes control and puts in the most effort. This was reflected by teacher 4 who uses students in the class to support peers with their work. Teacher 4 works with the students individually by giving in class verbal feedback as they are completing tasks. This requires a lot of effort but over time she has reaped the benefits of this.

> **T4 –** *"When I can see that someone has got it, I nominate them as my TA (teaching assistant). I ask them to help others who are struggling. This frees me up to work with individuals, knowing that others are not waiting for my time".*

Time is a huge factor and featured in many of the participants transcripts. A word that arose frequently was 'immediate' in relation to having work marked and back quickly so that it could be recalled and acted on.

> **S11 –** *"It is good a thing to have work back quickly as you remember the thinking process you went through when doing the work".*

> **S2 –** *"I need to make improvements immediately I get the work back as otherwise I procrastinate and will not do it".*

> **T3 –** *"In class during assessments I ask them* (the students) *to send work by Google Docs for review. I can then give immediate feedback so that students can make the improvements in the class".*

S8 – *"I think the quicker you can act on feedback the better it is. If you leave it for ages you forget what it is you have done and cannot make improvements".*

S3 – *"Feedback that comes late makes it difficult to remember what I have done, better if it comes soon after so that it is fresh in my mind".*

Unfortunately, the structure of some courses means that teachers are not always able to turn work around as promptly as they would like. Quite often learning has moved on before work is returned and as highlighted by the participants this can be detrimental to the subsequent level of improvement.

T3 – *"I have marked over 300 pieces of work. It can be difficult to get the work back to the students as quickly as they or me would like*".

The volume of marking and the time to do this can impact on the quality of the feedback. The strategies already mentioned by teacher 4 and teacher 3 do go some way towards to reducing this pressure as does a further strategy suggested by DH.

T2 – *"I highlight in green things that have been done well. Pink when there is more to do. This is supported with a comment as to what needs to be done to improve".*

Clarke (2001, 2014) advocates this strategy to reduce time spent on marking. She suggests that highlighting is effective at giving students an immediate visual clue as to where they have met the criteria and where the gaps are. Teacher 3 when making tries to restrict the number of improvements student need to make to three so that it is manageable in the time allocated in class to make improvements. He said that most students engaged well with this type of feedback, and he had not had any negative comments about the use of highlighters. The way he provides feedback demonstrates an understanding of assessment theory and its practical application with his students, however, he further commented that students do not always act upon the feedback, particularly when they have achieved a grade or a pass. Conversely, this was not reflected in comments from other teachers who knew the theory but felt there is not enough time to put it into practice. The result of this is that the teacher is spending time providing feedback that is really of little use to the student.

There is significant overlap with Theme 4 when discussing time, because most participants mentioned not only the timing of feedback but also being given time to act on the feedback.

4.5 (4) Time to act upon feedback

Within Themes 1 and 2 there is debate about motivation and particularly the types of feedback that motivate students to make improvements to their work. It has been established from this study and from research conducted by others that grades do not motivate, they in fact have the opposite effect. Whereas feedback that celebrates achievements and effort relative to the learning outcome/s and provides students with the information they need to improve does. However, this is only so if time and space are created within the classroom for students to act on the feedback. The transcripts below seek to capture the variety of reasons the participants gave for having time in class.

> **S9** – *"It is good to have time in class to do the amendments because you then have the benefit of the person that has taught the subject to ask questions".*
>
> **T4** – *"I give 30/40 minutes at the end of each lesson to make the improvements".*
>
> **S3** – *"Need to have time in class to resubmit before moved on to next piece of work otherwise the next piece of work will not contain any improvements".*
>
> **S13** – *"Doing improvements in the class is better than doing it at home".*
>
> **S14** – *"Work should come back in 2/3 days and need to have 20 – 30 minutes in the class to make the improvements".*
>
> **S7** – *"If you just give us the feedback and we don't have time* (referring to in class) *to make the improvements that's no good because we would not get the help we need".*
>
> **S3** – *"If we have time* (referring to in class) *to make the improvements then I am motivated to make the improvements".*

S8 – *"Being given the class time is good. Got to get your head down because you are in the right environment. You have your peers around you and they motivate you as they might understand something more than you do".*

The participants raised several important points about time in class including the availability of the teacher to answer questions and clarify written feedback, motivation, learning from peers and being in the right environment. This supports Clarke's (2001, 2014) view that allocating time in a lesson for students to act on feedback is key to it being understood. Further confusion ensues when the teacher is not present to explain their feedback. Coffield (2009) advises students that the teacher expects them to act on feedback, however, this can only occur if the right conditions are put in place for the students to improve their work. Documented evidence in Observations 1 to 8 show that when the right conditions are put in place students are mostly willing to act upon feedback. Students' behaviours were observed at either the beginning or end of a lesson when time had been allocated for them to respond to feedback on a formative assessment completed in an earlier lesson. Reflecting on the observations I noted that it wasn't just the time to make the improvements that was an important factor but also the psychological and physical environment in which the session took place.

Obs 1– *"Lack of grades meant that the focus was on the feedback. Students liked the prompts, particularly the questions. Not all students want to discuss their feedback in front of the class – Need to plan time for verbal feedback in private rather than group. Length of session was too long".*

Obs 4 – *"Students were given 25 minutes at the end of the lesson to make improvements. There was lots of discussion between students about this activity – comparing to their placement experiences. General air of motivation and engagement. All students made the requested improvements".*

Obs 6 – *"The feedback was timely as students are in the middle of unit 4 and lessons have centred around rewards and sanctions in education settings. Time allocated to make improvements was 30 minutes, but the students asked for extra time because they wanted to research in more depth…Overall this was the most successful session so far because feedback was timely, learning of the topic is in progress, students could*

> *continually add to their work, students led the session and more time was given when requested, there was no discussions around grades, just on the feedback".*

What is crucial in relation to this Theme, is the collaborative environment that the time in class creates for students to act upon the feedback. As discussed in 4.5 (3), Observation 5 of S16 and S3, these two students initially resisted making improvements to their work. However, they soon realised that not acting upon the feedback was not an option in this time. In some respects, there was peer pressure as they could see others working hard to make the improvements and they found themselves at a disadvantage during discussions about the work and peer assessments. In creating this environment, students can experience success and to see what success looks like and by not taking part, the two students initially missed out on this experience. As time progressed, I noted that they did begin to take an active role, but it was due to my expectation that they should rather than their own willingness to do the work required. It would be interesting to see if this study spanned a longer period, if they continued to resist or if they became more willing participants.

4.6 Conclusion

The data analyses reported and detailed in this chapter have highlighted some important findings as to how students and teachers understand feedback, and the conditions required to motivate students to act upon it. It is particularly evident that students know what feedback should tell them. Equally teachers generally appear to have a clear understanding of these crucial elements, but there is a disconnect between knowing the theory of formative assessment and putting it into practice in practical ways that are useful for students. This causes frustration for both the teacher and the students because the teachers find on numerous occasions that feedback has not been responded to. The findings will be discussed in detail in Chapter 5, however, some of the key findings that have emerged from the data analysis is the value of providing students with time in class to act upon the feedback. There are several reasons for this, and it is only successful if the right environment is created. If it is, then teachers and students develop positive relationships and peers work collaboratively together rather than feeling in competition with each other. The opportunity to discuss learning intentions and success criteria provides students with the opportunity to see what success looks like and, perhaps more importantly, is the promotion of active learning. Students have no choice other than to work on improving their assessments. However, feedback must focus on the progress the student is making and where their gaps are rather than play to their ego. Therefore, feedback should avoid the use of grades, scores or simplistic statements offering praise. When feedback plays to the ego, this becomes the dominate feature and regardless of the time and effort that the teacher has put into writing supporting comments, the students become fixed on the grade, or score achieved. Grades for a variety of reasons as explored in this analysis evoke strong emotions that can have a negative impact on a student's self-efficacy of being either incapable or overconfident. Grades will always be a feature of the education system and to a degree they are needed so that students have equality of opportunity when applying for jobs and further and higher education. Although, this study finds that for formative assessment to be of any value then they should not be graded, it is acknowledged that summative assessments will be graded but a footnote to this is that whatever assessment system is used, it must be fair to all students, and the grading of assessments is inevitability riddled with bias. Wiliam (2022) in his interview for TES "*Dylan Wiliam's vision for fair and accurate assessment"* he reinforces this point when he recounts one study whereby a photograph of a student was attached to their work and given to teachers to score. One photograph showed a student of average weight whereas the other photograph had been photoshopped to show an overweight student. Despite the work being the same, the people who graded the work of what they thought was an overweight student gave a score lower than that given to the average weight student. Therefore, if a piece of work is to be graded or scored this presents a case for completely independent anonymised marking of assessments, as in the case of external exams such as those taken by year 11 students in England. To remove bias on formative assessments students do not need to know what grade the teacher thinks they are working at, they need to know what they can do to develop their skills through high quality formative assessment feedback. For this to be successful feedback needs to occur when learning is still taking place.

Work returned days or weeks after the topic has moved on creates a lost opportunity for improvements to be made. Creating the right environment by providing time and space with the teacher present is crucial as students feel motivated and supported to make the improvements to their work. An additional advantage of this, is that all students are given the opportunity to develop skills that are of a higher order. For example, evaluation, rather than being restricted to activities requiring simple retrieval of information. As was seen in Observation 6, it is only when students could see that the teacher believes that each student has the capability to achieve the task and that their work is valued that they really begin to take responsibility for their own learning. The next chapter, Chapter 5 seeks to explain and discuss these findings in greater depth, as well as how they align with or differ from the other research findings. Chapter 5 also discusses the limitations of this study.

CHAPTER 5
DISCUSSION OF THEMES AND FINDINGS

5.1 Introduction

As described in Chapter 1, the purpose of this study is to determine the extent to which students act upon feedback they receive on assessment tasks and how students' use of formative assessment feedback might be improved. The same Chapter explains that in order to accomplish that goal, it is firstly necessary to review relevant literature in the field of assessment theory and practice in order to arrive at a sound understanding of ideas, concepts and discourses in this field of study to define and develop a clear and coherent understanding of what formative feedback is and how this is communicated to students in the GFE college where the research is set. Determining the context in which assessment feedback is put to work in a GFE is a key component of Chapter 1, as it is only by having a full grasp of how concepts, theories and ideas surrounding the provision of feedback is interpreted and used by teachers and students that the assessment theory-practice issues associated with feedback can be systematically investigated. The main research question (RQ) that this study seeks to address is:

> RQ1 - To what extent is feedback on formative assessments read/listened to and acted upon by students and how could this be improved in practice?

Reflecting on approaches to giving students feedback and listening to the reflections of colleagues brought me the realisation that there are some fundamental flaws in the strategies being used. This is despite the first pedagogical principle of formative assessment being active learning, in practice it was conspicuous by its absence. This led me to the development of four supplementary research questions:

> RQ2 - How can we help students to make more effective use of formative assessment feedback to improve learning and achievement?

RQ3 - To what extent are the strategies suggested by Clarke (2001,2014) useful in lessening teacher apathy towards feedback?

RQ4 - What do teachers say/do about the provision of feedback to their students?

RQ5 - What do students say/do with feedback they receive from their tutors?

In asking these questions and reflecting upon my initial responses to them is how my research journey began. Firstly, by reviewing peer-reviewed, published literature from robust educational research regarding the theory and practice of feedback, I began to realise that the concept of feedback in educational contexts is deeply rooted and often begins with formative assessment. This is where the distinction between assessment and feedback became slightly blurred. As did the terms summative and formative assessment. Many courses in vocational education in the GFE environment in which the research is set involve continuous assessment through written and other assignments. As Yorke (2003) suggests, these can be both formative and summative, formative because the student is expected to learn from whatever feedback is provided, and summative because the grade awarded contributes to the overall grade at the end of a period of study. The literature review presented in Chapter 2 amplifies these issues in the context of this study. Chapters 1 and 2 also foreground the existence of a lack of understanding of the guiding principles of formative assessment among teachers in the GFE sector. The same chapters also chronicle how this can lead to poor practice and lost opportunities to provide students with feedback that is of use to them. Black and Wiliam (1998a) argue that formative assessment must contain a number of guiding principles and features if they are to be of any use to students. Firstly, they contend, students need to know what they know. Secondly, students also need to know what the goal of their learning is and how close or far they are away from achieving the goal. Finally, Black and Wiliam (1998a) and Clarke (2001) draw attention to the importance of helping students to close the gap between the student's current and potential levels of achievement. The closing of this gap, they caution is the trickiest part. They also remind us that closing this gap is not as straightforward as the sentence sounds. Chapter 4 presents and analyses the findings of this research which demonstrates that the reaction of a student to feedback as well as how they may or may not be incentivised to act upon it depends on many things including, the student's confidence and belief in their ability, the strength of their ownership and motivation to achieve the goal. I describe earlier in this thesis how students complete a lot of formative assessment tasks for which they receive very little feedback or perhaps more accurately feedback that can be classed as feedback worthy of the name. In some of the better cases when answering a question in class students may be praised for their answer with a simple 'well done' or when solving maths problems, they receive a score. In the worst cases, students receive no feedback on the work they have completed. Teachers generally do not view the feedback they give students on their written essays as opportunities to provide formative assessment feedback that students can use to improve a future piece of work, as the work is viewed as summative. Some Awarding Bodies (Abs) also place restrictions on teachers as to how much direction they can give students in the feedback. This leads to a process in which the needs of the students are lost with grades awarded being the single most important thing. Closer consideration of the grading and scoring of students' work took the research in an unexpected direction. Before I began this research, I thought that the grading and scoring of student work to be fundamental aspects of students knowing their levels of attainment and their progress so that they can strive to do better in the future. Since then, however, while conducting this research, I have changed my mind. There is a clear consensus amongst credible researchers and globally renowned authors regarding the negative impact of grades and scores on students' willingness to make improvements to their work and this could not be ignored in this study. The focus of the primary research was to address this issue and to begin to shift the emphasis away from viewing all assessments as being of a summative nature requiring a grade, towards a formative approach whereby assessment feedback could be used to facilitate dialogue between peers and between the teacher and student, with the intention of motivating and providing students with opportunities to make improvements to their original piece of work. By purposely opening up opportunities for productive dialogue this study attempts to analyse the impact of active collaboration and cooperation between the teacher and student, and between the students themselves in developing both their engagement with the feedback offered and their volition to put this feedback to practical use in their future learning.

The analysis of the qualitative data in Chapter 4 brings four themes to light. Firstly, the impact of grading student work. Secondly, key components of feedback. Thirdly, the importance of Feedback strategies, and finally, the provision of dedicated time to act upon feedback. Perhaps unsurprisingly each of these themes are interconnected. This chapter presents and discusses the main findings within each theme as derived from the primary research.

5.2 Impact of Grading Student Work

Initially grading and scoring students work was not viewed as something that required much attention. It is widely accepted by students and teachers in the GFE college sector that grades are an important aspect of feedback. Students expect their work to be graded as in at least the two years prior to entering college grading has been an integral part of their schooling. They have been indoctrinated with the need to achieve certain grades to enter the schools sixth form, to go onto a college course or secure an apprenticeship. Sadly, the latter two are considered by many educationalists, students, and parents to be inferior choices as lower grade achievement at GCSE is usually required for these options. However, it is clear from the literature review in Chapter 2 and data analysis presented, and briefly discussed in Chapter 4, that grades and scores are viewed very differently by experts, researchers, teachers, and students. One of the major findings of this study is that grading student work presents barriers to improving achievement, particularly when the teacher uses this as a tool to publicly compare students. Although, hopefully it is unlikely to be the case that the teacher set out to be cruel, this does raise a question as to what the reasoning behind this practice is? - For example, if the intention was to motivate a student achieving less than their peers to work harder, then it is highly unlikely that this would have the desired effect. As for students at the top of the league table, the same assessment practice presents them with little motivation for improving future work, after all they've already achieved everything, they need to do. As this qualitative research study shows, students receiving grades that play to their ego do not see this as an opportunity for development but more of an affirmation of what they already know about their ability. Grades link closely with praise, as a high grade will often be followed with a confirmatory sentence such as ‘well done’ or ‘you clearly worked hard on this’ whereas a student on the other end of the grade scale may be told they need to put in more effort or to study harder. How students react to the grade may be influenced by their mindset. Dweck (2017) describes a situation where a student has a bad day and amongst other things that go wrong, the student receives a C+ on an assessment. When Dweck asked people with a fixed mindset how they would react to this grade, they replied with many negative statements suggesting that they are failures, idiotic or dumb. Whereas those with a growth mindset were able to brush it off, “the C+ would tell me that I’d have to work harder in class” (Dweck, 2017, p.9). Clearly, having a growth mindset is a better position to be in when a grade or score is given, as students with a growth mindset are likely to challenge themselves to study harder, and determine to do better next time. However, when grades or scores are attributed to fixed levels of intelligence rather than degree of effort, then the situation becomes even more troubling. A second finding from this qualitative research study illuminates how students view grades as a judgement of their ability rather than being a reflection of the amount of thought and effort they invested in their work. Dweck (2017) in a study of hundreds of mostly early adolescents completing a non-verbal IQ test found that those whose scores were attributed to their intelligence developed a fixed mindset, whereas those whose scores were linked to effort continued to improve. This perhaps presents a simple (but deeply flawed) solution to teachers suggesting that praising student’s efforts is sufficient to facilitate a growth mindset. Praise has long been debated and is generally perceived to have a positive effect on student’s motivation. Praise is a form of persuasion. If individuals can be positively conditioned through praise to believe that they are capable of succeeding, then this has an enhancing influence on their levels of confidence and self-efficacy. Bandura (1978) describes self-efficacy as being the belief that individuals have the capabilities to accomplish what is required to achieve the desired outcomes. Raising a person’s belief in themselves through praise should therefore lead to improved performance and greater academic achievement. However, this is not always the case. As Dweck (2016) states in her interview with Gross-Loh for *The Atlantic*, this is where Growth Mindset has been misinterpreted. Dweck’s growth mindset is not simply about lavishing praise for effort, particularly when the student themselves can see that they are not making any progress. Praise for effort, she argues, must be linked to the outcome, otherwise students will not know how the learning strategies they employed when completing a piece of work led to the result achieved. As Dweck (2016) says in her interview with Gross-Loh:

> A lot of parents or teachers say praise the effort, not the outcome. I say [that's] wrong: Praise the effort that led to the outcome or learning progress; tie the praise to it. It's not just effort, but strategy … so support the student in finding another strategy. Effective teachers who actually have classrooms full of children with a growth mindset are always supporting children's learning strategies and showing how strategies created that success.
>
> Students need to know that if they're stuck, they don't need just effort. You don't want them redoubling their efforts with the same ineffective strategies. You want them to know when to ask for help and when to use resources that are available.
>
> All of this is part of the process that needs to be taught and tied to learning.

While praise does contribute in some way to intrinsic motivation, its value is lost if the praise is not contextualised to the task or skill that is being performed. Praise can have a negative effect of reducing students' cognitive involvement in a task as they become fixated on the effort rather than their progress in obtaining the knowledge or a skill. The meta-analysis conducted by Kluger and DeNisi (1996) exposes some fundamental flaws in feedback that was meant to motivate but had the opposite effect on student performance. This suggests that feedback characterised as evaluative (grades, scores, praise) leads to a decrease in learning because it does not tell the student anything about how well they did on a task or what they need to do to improve. Butler (1987, 1988) notes that students who were praised for their effort or achieved a high score had a high awareness of success but made significantly less progress than the students who received task related comment feedback. Kohn (1999b) argues that praise is a form of control and that no one likes to feel controlled. Whilst the findings in this research do not suggest that praise should not be a feature of the classroom, teachers should give careful consideration to not only how and when they direct praise but also their reasons for doing so. If it is to coerce a student into behaving in a certain way it is unlikely that this will be the outcome. Kohn (1999b) recommends that rather than using praise that has no meaning, it is better to look critically at reasons why students are not motivated in their learning tasks. He suggests that the fault is usually in the design of the learning tasks themselves, particularly if the student is not interested or invested in the task. An example of this is the teacher making assumptions about student capabilities and restricting their learning to lower-level skills, namely, basic knowledge retrieval without considering that all students can achieve learning at a high level if the right support and environment is created for them to do so. The use of Bloom's taxonomy (1956) in some cases limits classroom experiences as, if used in structuring learning outcomes the teacher may unwittingly believe that whilst most students are capable of achieving cognitive skills at the bottom of the hierarchy, only a few are capable of achieving skills at the top of the hierarchy. William (2018a) supports this view recommending that to raise achievement in their classrooms, teachers need to investigate their own practice in communities with other teachers to see how they can change what they do for the better.

Returning to the issue of praise, when using praise in the GFE college environment where this research is set, it is important to bear in mind the age of the students. Adolescents are complex, sometimes fragile human beings and their perceptions of praise will vary depending on how and when it is offered. Meyer (1982), cited in Nottingham and Nottingham (2017) found that, "older students perceived praise after success or neutral feedback after failure as an indication that the teacher perceived their ability to be low. When given criticism after failure and neutral feedback after success, they perceived that the teacher had estimated their ability to be high and their effort low" (p.15). Interestingly, in this study, there is a strong link between high grades and praise and low grades with criticism and the emotional responses expressed by the student participants were mainly negative regardless of whether the grade was low or high. This raises the question of the value of grades. Several studies point to grades as being an ineffective method of providing feedback to students.

In their investigation of the effect of teachers written feedback on homework tasks, Elawar and Corno (1985) find that students who receive comments performed significantly better than those who receive grades. These findings are reflected in similar studies. For example, Butler (1987, 1988) and Butler and Nisan (1986). In the latter study, Butler and Nissan compare the effects of three feedback conditions (written comments, no feedback, and grades) on 9 classes of 261 sixth-grade students engaged in a qualitative and quantitative task. They find that the students who received written comments were noticeably more interested in the task, particularly the qualitative task than the groups receiving no feedback or grades. Butler and Nissan, conclude from this study that grades serve as simple quantitative measures of performance and achievement, which serve only to undermine interest in a task and evoke negative feelings, such as a fear of failure. In contrast, written individualised, task-related feedback increases interest in a task, motivates students to improve and empowers students to have a level of control over their learning. As mentioned earlier, Kohn (1999b) argues that grades, praise, and rewards are counterproductive due to the level of control these exert over the students. When students are not in control of their own learning, interest in tasks diminishes. Butler (1987, 1988) finds that grades impact negatively on students' performance when measuring improvements in learning tasks. Students who receive comments only out-performed students whose work had been graded either with or without comments attached. In contradiction, to these results when recounting an earlier study by Page (1958), Guskey and Bailey (2001) argue that grades can have a positive impact on students' progress and achievement. Like Butler's (1987, 1988) studies, Page gave feedback to students using three different conditions, group 1, a numerical score and a corresponding grade, group 2, standard comments and a grade, and group 3, detailed comments, and a grade. He found that students receiving grades together with detailed comments (group 3), outperformed students in groups 1 and 2. Additionally, students who received a grade followed by standard comments (group 2) outperformed students in the grade only group (group 1). Whilst this research offers us a different perspective, it can be argued that the work of Butler and others is more recent and supported by highly regarded researchers and educationalists such as Black and Wiliam (1998a), Kluger and DeNisi (1996) and Kohn (1999).

Kohn (1999) is a major contributor to the argument for not grading work and whilst the term barbaric may seem too strong to describe grading, Kohn in his article, '*From Degrading to De-Grading'* presents a despairing view of the impact of grading student work arguing that grades impact negatively in several different ways:

Grades tend to reduce students' interest in the learning itself,

Grades tend to reduce students' preferences for challenging tasks,

Grades tend to reduce the quality of students thinking,

Grades aren't valid, reliable, or objective,

Grades distort the curriculum,

Grades waste a lot of time that could be spent on learning,

Grades encourage cheating,

Grades spoil teachers' relationships with students,

Grades spoil students' relationships with each other.

Of the nine effects listed by Kohn (1999), there is evidence in this study that some of these are present, most notably the reduction in students' creativity and damage caused to relationships. The data analysis in this research offers fascinating insights into the reactions that the students had about their grade achievements with most describing negative effects leading to low self-efficacy. Worryingly, those with high self-efficacy saw their high performance as an opportunity to tease their peers thus damaging relationships. The conclusion to be drawn from this is that regardless of the grade achieved, the grading system can be considered in Kohn's terms as barbaric. As already discussed, one incident stands out as the most significant when a student describes being singled out in front of the class when she achieved a poor grade on a science assessment. It is not possible at this point to know the teacher's motives for doing this but the effect on the student was profound and when recounting this in the interview she expressed anger towards the teacher, suggesting that the teacher didn't like her. Disturbingly, Wiliam (2022) suggests that information about the physical characteristics of a student, such as weight or ethnicity can unfairly affect the grading of a students work. Malouff and Thorsteinsson (2016) in their meta-analysis of bias in grading found that students with physical characteristics that often attract prejudice, such as sex, race, physical attractiveness, scored 36% less than their peers. However, they also concluded that in some studies reverse bias, a term used in engineering to describe the opposite flow of current, existed, with students in the hypothesised group being given higher scores. Regardless of the direction in which bias flows, the overriding result of the meta-analysis is that bias can occur and this was particularly significant with students, “who have negative educational labels, students who are members of specific ethnic or racial groups, students who have previously performed poorly, and less attractive students” (Malouff and Thorsteinsson, 2016, p.8). If a student’s work is to be graded or scored, then the solution for the grade or score to be considered fair and reliable would be for the work submitted to be completely anonymised. Realistically in the environment where this research is set this would not be logistically possible as many courses are based on continuous assessment by the teacher as opposed to external assessments or exams. Another solution may be to restrict grading and scoring to assessments where there is a definitive answer, such as a maths test. It can be argued that there is no room for bias or ambiguity because there is a correct answer to the maths problem, although any maths teacher will tell you this is not the case. A student may give an incorrect answer, but they have shown the elements that they do understand in their working out. It would not be fair to award a ‘0’ when clearly there are elements of solving the problem that the student has understood and if a ‘0’ is awarded then this tells the student nothing about what aspects of solving the problem they have mastered and what they need to work on. This strengthens the case for removing grades and scores from formative assessments. By focussing feedback on the three principles of, firstly ensuring that the student understands the purpose (goal) of the task, secondly, informing the student the progress they are making compared to the goal, and finally telling the student what they need to know and do to enable them to ‘close the gap’ between current and potential levels of achievement removes the possibility of teachers making judgments about the work that are based on their attitudes about the student’s personal or physical characteristics. Malouff and Thorsteinsson (2016) contend that grades contribute to increasing the gaps that exist between students based on characteristic, specifically race, socioeconomic status, sex, gender identity and other characteristics that typically attract bias. This only serves to increase opportunities for individuals who already have opportunities due to possessing characteristics that are more favourable. Conversely, Brookhart et al (2016) in their synthesis of 100 years of research into grading found that it is not necessarily physical characteristics that cause the validity and reliability of grades awarded to be called into question, but more the weight that teachers attribute to non-achievement academic factors, such as handing in homework, engagement in activities and classroom behaviour with student effort being a key element in grading. They describe this as a 'multidimensional measure' of student grades and that the emphasise placed on non-academic achievement factors varies between teachers (even in the same school) and this raises the issue of the validity and reliability of grades awarded. Although, teacher bias was not a specific finding in this research study, some of the participant students mentioned feeling judged and worrying about what grade would be awarded for a piece of work. It would be interesting, although a separate thesis, to compare grades awarded to students with characteristics that tend to attract prejudicial views, with students who are generally viewed as having positive characteristics or with students who according to the teachers' perceptions demonstrate positive learning attitudes.

Bias is not the only problem. Throughout history grades and scores have been the subject of debate and it has long been suspected that grades and scores are crude, unreliable and not an authentic reflection of a students' educational ability as found in this qualitative research study. The student participants in the study completed formative assessments prior to sitting their GCSE's. These are meant to be an accurate predictor of final GCSE performance. However, as in the qualitative data strand of this study, there was often no correlation between formative assessment grades and final GCSE grades. Elbow (1994) draws attention to research from 1912 of high school English teachers giving the same papers different grades. Blum (2020) argues that this may be because there is a lack of clarity and consensus amongst markers as to the criterion that justifies a particular grade. Grade boundaries are open to interpretation and individuals quite often disagree about the quality and value of texts (Elbow, 1994). When the priorities of one teacher differ from that of another, this dilutes the trustworthiness of the grading process. For example, a student who has a neatly presented piece of work with correct spelling and grammar but little content, may score more highly than a poorly presented piece of work with excellent content. Ranking is an unavoidable consequence of grading students, and a finding from the primary research in this study is that ranking has only negative impact regardless of whether a student's ability is positioned at the top, middle or bottom of the league table. "Ranking leads students to get so hung up on these oversimple quantitative verdicts that they care more about scores than about learning" (Elbow, 1994, p.3). Ranking merely serves to provide students with information on how they compare to others doing the same task, and as Kohn (1999) points out this is perhaps the singular most toxic ingredient found in any classroom. This qualitative research study reveals how the promotion of competition between peers damages relationships with the participants mentioning how they felt either superior or inferior to their peers. When peer relationships are damaged, this ultimately affects the student-teacher relationship, as a student who is fearful of what the outcome of a piece of work is going to be will not have built up a trusting relationship with the teacher. Although many authors referred to in this study make a strong case for removing grades from feedback, Wiliam (2014) points out that all feedback will be a waste of time irrespective of whether a grade is given if the teacher has not taken time and effort to really get to know their students. As Wiliam (2014) says "the thing that really matters in feedback is the relationship between the student and the teacher… Ultimately, when you know your students and your students trust you, you can ignore all the 'rules' of feedback. Without that relationship, all the research in the world won't matter". This provides the basis for a counter argument for grades and scores as perhaps it is more about the level of trust that exists between the teacher and the student that is the important factor when any form of feedback is given. Whilst Dylan Wiliam is not explicitly suggesting that there is a place for grades and scores in feedback, there are those who support this type of feedback. The work of Reddan (2013) supports a system of grading postulating that this is preferable to a pass or fail on a course. In citing comments from students, Reddan (2013) establishes that students found their grade to be motivational, it pushed them to try harder and a supportive environment was created as students helped each other. There is no doubt that the grade was a better choice than a simple pass or fail, but as no comparison was made to forms of feedback that did not include a grade, it cannot be assumed from Reddan's research that grading is the best option.

The qualitative data examined in Chapter 4, expose a range of issues with grading and the participant students showed a preference for feedback from their teachers that satisfies the conditions explored extensively in this research. Students do not find feedback that is ego related that plays to the self, useful or helpful. Instead, they prefer feedback that is specific, and task focussed, that directs them towards strategies to make further improvements in their learning strategies to achieve the goal. When feedback is evaluative this tells students nothing about the progress they have made in relation to the task, thus limiting their ability to think beyond the evaluative grade or praise statement. Inhibiting students thinking is probably one of the least likely outcomes that any teacher would want for their students, but the evidence points to this being the case when grades or scores are awarded despite the counter arguments put forward by Page (1958) and Reddam (2013). Although as Wiliam (2014) points out, the usefulness of any form of feedback is reliant on a trustful student - teacher relationship. The findings relative to nurturing relationships between teachers and students is discussed later in this chapter. However, before doing so, having established that grades and scores are an ineffective form of feedback, and made the point that it is questionable if grades and scores can even be considered feedback, the next section of this Chapter explores the research findings emerging from this study relative to components of feedback.

5.3 Components of Feedback

The aim of this thesis is primarily to address the main research question regarding the extent to which feedback on formative assessments is read, listened to, and acted upon by students, and how the provision and use of assessment feedback could be improved in practice. This section explores the latter part of the question of how the provision and use of feedback could be improved in practice. One of the most important outcomes emerging from the literature review is the suggestion that optimal feedback should direct students towards the task and the goals within the task. The psychology of goal setting theory is comparable to aspects of motivation discussed earlier in this Chapter. There is a relationship between goals and performance that suggests when goals are task focussed as opposed to performance focussed then this can lead to higher achievement (Loche and Lathan, 1991). Feedback should provide strategies that are useful to the student to improve performance with several authors suggesting three features which can be traced back over time from Ramaprasad (1983), through to more recent authors such as Nottingham and Nottingham (2017). The above authors argue that by shifting students focus from perceptions about their ability to their progress towards a goal they are more motivated to engage in thinking about what they need to do to improve their performance. At this time, it is important to pick up on the previous point that we need to be ever mindful that grades are inevitably a common feature of the feedback that the students in the study are used to receiving. The work of behavioural psychologist Skinner (1937) whose experiments centred on controlling the behaviours of rats, developed a theory of operant conditioning which suggests that humans are susceptible to persuasion and manipulation through exposure to both positive and negative reinforcement. Skinner thought consistency played a key role in maintaining any change in behaviour and the conditions put in place would need to remain for an indeterminate amount of time. Thinking of grades as a positive or negative reinforcer, in simple terms a student regularly receiving high grades should be motivated to continue this path whereas a student receiving a low grade should be motivated to improve to achieve the reward of a high grade. As the qualitative data in this study shows, this desirable outcome is rarely achieved and this is one of the main criticisms of Skinner's research as it does not consider factors such as an individual's motivation, intelligence, prior experiences, values or beliefs. Students in the study generally felt no motivation to either maintain or improve their performance based on the grade achieved. There is no clear reason or explanation for this as everyone in the study constructs their own interpretation of their reaction to the grades they had received, although, there was some commonality which allows a conclusion to be drawn. The grade in most cases represented a barrier to learning, whether this be because the student felt embarrassed or smug when they achieved a high grade or stupid or worthless when the grade was low. The aim of the study is to explore how such obstacles might be dismantled and removed. As already argued, feedback that is task related helps to remove potential barriers to students' learning in that it encourages them to see they can improve as no judgement is given in the feedback in relation to success or failure. This thread of the argument is intertwined within meta-analysis as evidenced in the work of Kluger and DeNisi (1996) who identify that feedback is least effective when students' attention is drawn away from the task. The design this study adopts is the format of providing feedback to 'close the gap' based on the evidence provided by the formally mentioned authors and researchers. In doing so, feedback to students included only the three features: 1) ensuring that the student understands the purpose (goal) of the task, 2) informing the student of the progress they are making compared to the goal, and 3) telling the student what they need to know to close the gap. This is where there is a disconnect between the theory of formative assessment and the practice of formative assessment which is another finding of this study. Whilst some of the teachers in this study can articulate these features, they comment that there is often no time to do so due to the volume of work that requires marking. Additionally, even when these features appear in feedback they are usually accompanied with a grade or score. This is one of the limitations of the study as it offers no comparison if a grade or praise had been included in the feedback. This limitation is considered later in this Chapter.

5.4 Feedback Strategies

As illustrated above, the components of feedback and feedback strategies are connected, and it may be argued that the two are roughly the same, however, there are some fundamental differences. The previous section discusses the findings of this study in relation to the features of feedback. The intention of this section of the Chapter is to consider the findings of this study in relation to 'how' to communicate the feedback to 'close the gap' in a way that is beneficial to the student without adding to teacher workload. Using the ideas presented in the previous section would be worthless if the content of the feedback is not of any use or if the student perceives the feedback to be overly scrutinising, too controlling, or creates competition with other students (Ryan and Deci, 2000a). The analysis of the data in Chapter 4 provides evidence that students respond well to the 'closing the gap' strategies and in many cases, it was possible for me, as their teacher, to be able to see the progress the students made between the first and second assessment. There were, however, exceptions to this. In reviewing the student's comments, progress was not made when the success criteria or goal were ambiguous or misunderstood, or when the teacher's expectations of student ability were low. As with other aspects of assessment, there is an abundance of research and literature providing advice to teachers on setting learning goals and success criteria from renowned authors such as Clarke (2001,2014), Hattie and Clarke (2019), Nottingham and Nottingham (2017), and Wiliam (2018b) among others. Regardless of the author, there is a general agreement that learning goals are important in communicating the aim of the assessment task to the students, and that there is a relationship between setting goals and successfully performing tasks. There also is a wealth of guidance that teachers can draw upon to structure learning goals using taxonomies of thinking, including, Bloom's Taxonomy (1956). Bloom places cognitive skills in a hierarchy which takes a student on a journey from the basic retrieval of knowledge through to higher order thinking skills of synthesis and evaluation whereby the knowledge can be judged and applied or transferred to new and different contexts. Although helpful in establishing learning goals and in identifying the cognitive demand required at various points in learning activities, it is important to note that learning rarely happens in a linear way, and one of the major problems with Bloom's Taxonomy is the hierarchical structure and the use of degrees of difficulty that separate each level (Marzano and Kendall, 2007). The issue is that Bloom's cognitive hierarchy categorises information processing into six levels suggesting that some cognitive tasks are more difficult than others. For example, evaluating is considered more complex than analysing, but what has been overlooked is whilst the complexity of an activity does not change, the familiarity of the task in hand does. Therefore, a student approaching a complex task that they are familiar with will find the task easier to complete. Marzano and Kendall (2000) propose a New Taxonomy of information processing based on three domains of knowledge, information, mental procedures, and psychomotor procedures. These are organised into six levels of processing that are in turn classified into three systems, the self-system, the metacognitive system, and the cognitive system which is different as Bloom's method only deals with cognitive aspects. This approach recognises that learning is not linear but multifaceted. The Structure of Observed Learning Outcome

(SOLO) taxonomy model proposed by Biggs and Collis (1982) suggest that learning is circular, whereby students move between the stages as they construct knowledge. Understanding how to structure learning outcomes is an important aspect of teaching and the assessment process as they create focus for self, peer, and teacher feedback. If these are too broad, overly ambiguous, or poorly structured, confusion can occur as seen in the results of this study qualitative data in this study. From this perspective, objectives should also be multidimensional as the aim is not to restrict learning but like Biggs and Collis's SOLO Taxonomy and the New Taxonomy proposed by Marzano and Kendall, learning objectives should facilitate deep and meaningful learning, recognising that all students can achieve skills described by Bloom as higher orders of thinking skills. This is reflected in the findings of this study when students describe themselves as not being motivated to complete activities that offer no challenge or interest. Providing learning outcomes that acknowledge that all students have the capabilities to evaluate, synthesise, analyse and apply knowledge in practice is important if a teacher is to create excitement and interest in the learning. However, this excitement and interest will be lost if the goals are not explicit. The literature review set out in Chapter 2 of this thesis explores this point in some detail where it cites an example provided by Wiliam (2018) when a baseball athlete is told he needs to improve his batting average without being given advice on the steps required to do this. In Wiliam's example, the baseball player had no way of knowing if he needed to work on his body posture, positioning, or hand to eye coordination. Students in this study talked about being confused by what was required within a task or when learning goals were not explicit resulting in them misunderstanding the assessment task. The students were unsure as to how to advise their peers as they had not understood the original criteria set for the task. In this instance, there are many negative effects which ripple like a stone being dropped into water. The first impact is on the student's self-efficacy as they question why they do not understand the task set by the teacher, and they then begin to question their ability to succeed. This in turn, if not addressed quickly by the teacher can lead to the student and/or class becoming demotivated and to lose trust in the teacher. Nottingham and Nottingham (2017) suggest that students need to be able to see what success sounds like, feels like tastes like and smells like. Telling a child that they need to improve their reading tells them nothing about what they need to do to improve. As with the baseball player example there is no specific articulation in the guidance on how to improve. The child does not know if it is the speed, fluency, or comprehension of their reading that requires improvement or all three. The students reported in this study have experienced eleven years of compulsory education prior to coming to college and they are familiar with being set learning goals. It is therefore surprising that the learning goal for the task that required peer assessment in this study was not questioned during the task but only during the peer assessment activity. This suggests that, not only is it essential that learning goals are clear, there also needs to be room within the goals for the students to have autonomy over their learning and opportunities for them to develop further learning goals (Marzano and Kendall, 2007). Data from this study lend support to the claims of the above authors where they suggest that, when students develop a command of the practical strategies needed to take control over their own goals and learning, a shift occurs in the balance of power between the student and teacher with the relationship developing into being collaborative rather than being dominated by the teacher. This is apparent when students in this study took control of a session as they wanted to explore the learning beyond the original criteria. Had I, as the teacher facilitating the session, not agreed to extend the session a rich learning opportunity would have been lost and like the ripple effect described earlier, there would have been a negative impact on students' motivation and self-regulation. In developing their four-stage model of differentiated feedback Hattie and Timperley (2007) find that the features that improved performance best were the process model and the self-regulation model. The process model requires students to re-assess, to detect errors and search for alternative solutions. The self-regulation level comprises of students' self-monitoring, directing, and regulating their actions. This is reflective of Marzano and Kendall's (2007) New Taxonomy of educational objectives, metacognitive system which is engaged when students select to complete a new task. This involves the student in forming their own learning goals and planning strategies for accomplishing the learning objective. Students who take ownership of their learning are more likely to be motivated to achieve the goal due to the autonomous nature of how the goal was identified and set (Ryan and Deci, 2000a). When motivation is high, data in this study suggest, that this encourages students to attempt more difficult and challenging tasks requiring creative and critical thinking which subsequently engages the cognitive system reflected in Marzano and Kendall's (2000) New Taxonomy of educational objectives.

However, using the ideas presented in this section of the thesis will be worthless if the content of the feedback is not useful to the student or if the student perceives the feedback to be overly scrutinising, too controlling, or creates competition with other students (Ryan and Deci, 2000a). The latter point is reflected in the comments of a student in the study who said that she did not like having a conversation about her feedback in the classroom environment in the presence of other students as it made her feel uncomfortable. How feedback is communicated regardless of whether it is verbal or non-verbal must be carefully considered as there is no one size that fits all. Clarke (2001, 2014) promotes the use of highlighter pens as focusing devices to help the learner (literally) see where they have met criteria for success as well as criteria that have yet to be met. One colour is used to direct students to parts of the work where they have met the criterion, and another is used to highlight where improvements are required. Clarke accompanies each criterion requiring improvement with a 'closing the gap' statement using differentiated prompts which provide suggestions to enable the student to take their practical next step towards achieving their learning goal. Prompts can remind, scaffold, or provide a practical example. One of the concerns in using highlighters to emerge in this study is the age of the students and whether they would regard this type of marking as 'childish'. Data and findings show this not to be the case. Students in the study responded positively to highlighters and prompts and there was a consensus that these helped with addressing any discrepancies to 'close the gap'. A skill of the teacher is to know the type of prompt that works for each student and the level of individual teacher support that each student requires. Data analysis in Chapter 4 also reveals that for the suggested feedback strategies to be of any benefit to students the timing of feedback is crucial. Feedback that comes days or in the worst-case weeks after the learning has taken place will be of little use to the student as memories of and interest in the task diminish over time. In addition, if a new topic has been started, then the student's attention has shifted away from the task set in the previous week(s). Providing timely feedback and time in class for students to act on feedback is a major finding of this study.

5.5 Time to Act on Feedback

A common thread running through the data and the findings in this thesis is the topic of student motivation. Ultimately every strategy employed in this study is aiming to motivate students to act upon the feedback given to them to raise achievement. So far, the findings of this thesis have established that grades and scores are not a useful form of assessment feedback because they do not provide students with specific guidance and support regarding how they can improve their work further. Data from this study also suggest that the use of grades and scores is questionable on the grounds of the negative impact that grades can have on future learning. Abandonment of grades and scores in formative assessment alone, however, will not motivate students themselves. Data from this study also suggest that what is most important is that the teacher provides the student with experiences of learning strategies designed to help the student work towards the desired outcome of encouraging students to engage with, act upon and continue to use the learning strategies they have been introduced to as part of a coherent, practical and purposeful formative assessment strategy, in which, both the teacher and students share responsibility and accountability for improvement. The three features (or guiding principles) of formative assessment presented in this study provide a framework for the provision of assessment feedback that is task rather than performance focussed. Once again, this alone is not enough to motivate students to act upon feedback. Wiliam (2014) notes, all feedback will be pointless if the teacher has not made the effort to build up positive trusting relationships with their students. This is apparent in the findings of the study. As the data analysis in Chapter 4 shows, students need and value having time in class to respond to feedback. Clarke (2001, 2014) emphasises the importance of providing students with time in class to act upon the feedback they have been given, suggesting that it is a crucial part of learning. Nottingham and Nottingham (2017) point out, this goes hand in hand with the careful timing of the feedback offered. Students in this study support this view where they comment that having the work they submit returned to them within a day or two of its submission is a key factor in motivating them to act upon the feedback given. The longer the delay, interest for the task fades, as does the amount the students remember about the task and thus the motivation for improving the work diminishes. A key finding of this research is that the strategy employed in this study of providing 20-30 minutes at the beginning or end of a session afforded students with time to act upon either peer or teacher feedback is vital in the development of a coherent and useful formative assessment strategy which keeps the learners active in improving their own learning. Students generally responded well to this, as many acknowledged that had they been asked to do the work at home they probably would not have done so. Two students in the study who prior to the intervention rarely worked on improvements did begin to see the benefits of using the time in the session to review and improve their work. It took a few sessions for them to engage with the activity and their participation was not through choice, but because there was no option other than to work on improvements in that part of the session. The motivation for them to complete the activity came not because they valued the activity but because of the pressure from the teacher for them to accept responsibility for and to be accountable for improving their work. They were neither intrinsically or extrinsically motivated as they felt no internal motivation to complete the task and the teacher's attempts to encourage their active engagement fostered mainly an unwillingness to do so. Perhaps, the lack of a tangible reward provides some explanation as to their lack of motivation, however, tangible rewards have also been found to inhibit learning, particularly where the learning task set is of interest to the students (Deci, Koestner and Ryan, 1999). Deci and Ryan (2000b) make a distinction between different levels and types of motivation and that the type of motivation will depend on an individual's underlying attitudes and goals, and these can be due to extrinsic and/or intrinsic motivations. However, they go on to point out that many years of research on motivation shows that the quality of an individual's performance is inhibited when they are behaving for extrinsic purposes as opposed to intrinsic reasons During the research, I noted that the two students discussed above, developed less autonomy as the sessions progressed than students who embraced the opportunity with more enthusiasm. Another key finding in this thesis is that essentially, a major influencing factor of the students' experience in these sessions is the opportunity the time provides for students to work collaboratively with their peers and with the teacher. Students can seek clarification and check they are the right track; the teacher can address any misconceptions immediately and notice patterns emerging that can in turn inform planning. Another finding of this research is that in the process, the teacher gains in-depth insights into how individual students respond to and act upon feedback and the kind of prompts that work for each individual student (Clarke, 2001, 2014). The individualisation and differentiation of prompts helps to remove the risk of teachers 'dumbing down' tasks believing that only a few students are capable of developing skills to complete tasks with high levels of difficulty. The opportunity for dialogue that providing time in class creates should not be underestimated. Apart from the benefits already mentioned, there comes a point when the teacher notices that students' reliance on direction from the teacher diminishes and students begin to take more responsibility for their own learning, thus shifting the balance of power from the teacher to the student. The environment the teacher creates is crucial here in fostering trust between the student and teacher. If trust is not present, then it will not matter what feedback strategy is used because the student will not have any faith or credibility in the feedback the teacher is giving. The provision of class time is not enough on its own. To foster the collaborative relationship and to make sure that this time is valuable to the student and teacher, careful consideration to the format and content of the feedback whether it be written, recorded or face to face must be given. Any feedback that threatens the students' self-esteem or self-efficacy is likely to raise anxieties and limit the benefits of the time in class session. What also cannot be under-estimated in these sessions is what the teacher can learn from the students (Hattie and Clarke, 2019). During this study, I gained important insights into my students thinking and how they learn. In one incident my students highlighted that they did not understand an assessment criterion set for a task. In another session, I noticed that my students were confident enough to ask me for additional time to work on the task. On reflection, it is highly unlikely that students would develop this level of confidence, autonomy, and agency if the physical and emotional environment had not been carefully planned and considered.

The use of the time in class proposed by Clarke (2001, 2014) as employed in this study is demonstrated as being beneficial to both students and teachers. The usefulness of such sessions in a GFE college environment should not be under-estimated due to the long-term positive effects on learning. Collaboration is a central feature of the approach and as the students become confident in their ability to improve their work, they develop skills of self-regulation and autonomy. Self-determination theory (SDT) as proposed by Ryan and Deci (2000b) suggests that for individuals to be intrinsically motivated they require autonomy, competence, and relatedness and these can be affected by external forces. In early childhood the desire to complete activities is mainly self-driven with intrinsic motivation being high, but this seems to dimmish as children grow and meet the demands to perform in their schooling. The external influence of control can reduce an individual's interest in an activity. Cognitive evaluation theory (CET) an aspect of SDT suggests that external factors, notably those that bring about feelings of incompetence, can reduce an individual's intrinsic motivation (Ryan and Ryan, 2000b). Perhaps this goes some way to explain the impact of rewards, praise, punishments, and grades on students' motivation as this study finds that that these mainly have negative impact. The approach adopted in this study of providing students time to act on feedback seeks to satisfy the three conditions of motivation suggested by Ryan and Deci (2000). Autonomy is catered for by providing students with the practical experience of time in class to read, discuss and act upon the assessment feedback. In providing challenges and interesting tasks within the feedback, the teacher acknowledges each student as being competent to achieve the learning goals, rather than restricting their learning based on assumptions about grade capability. Finally, time in class provides, relatedness through collaborative working with teachers and peers. Generally, the study lends support to the works of Clarke (2001, 2014) and Wiliam (2018) in that the outcomes of providing time in class sessions where students are required to act upon assessment feedback given are positive, because these sessions provided the students with practical experiences of using learning strategies they needed to improve their learning. A key finding of this study is not only the importance of opening up time and space in the classroom to act upon feedback, but also the opportunities for deep and meaningful learning that occurs because of the student's active participation in the sessions. In the time in class sessions, students experienced learning from a variety of perspectives. There were lightbulb moments where students suddenly understood a task and moments when the students showed immense interest in developing learning beyond the original task. Students were required to be active participants in these sessions, not acting upon the feedback was not an option, they had to do something, and this provided challenges that likely led to feelings of discomfort. However, as the data in Chapter 4 shows, the more the students experienced these sessions, the more skilled they became in putting the strategies into practice, thus giving them strategies to apply to future learning. A skill that will not only be valuable to them as they progress in their education but also in their ability to apply these skills to real life situations, such as their future careers. The data analysis in Chapter 4 discusses two students who reluctantly engaged with the sessions, although as much as they tried, they knew that they could not be passive in these sessions. Their feelings of discomfort deepened, particularly when peer assessment was a feature of the session, however, as Wiliam (2018) argues, formative assessment is not helpful when learning is not active and often requires hard work and effort. As I was the teacher facilitating these sessions, I could have taken the easy option of allowing the two students to be inactive, but this would have communicated to the two students an indifference to their participation and the important guiding pedagogical principal of keeping learners active as discussed in the literature review in Chapter 2. The time in class sessions were positive, although, this brings to light a limitation of the study as feedback comments were solely task focussed and excluded any extrinsic motivators such as grades, scores, or praise. There is no evidence to compare if the outcomes of the sessions would have been different or the same had these been a feature of the feedback.

5.6 Limitations

In reviewing the data analysis in Chapter 4, there, I draw attention to some potential limitations of this study that might cause others to question the trustworthiness of the findings. This section of Chapter 5 also notes the limitations of this study. It also endeavours to explain them in the context in which it is set.

5.6 (1) Literature/research base

The literature, Chapter 2, critically considers competing arguments surrounding the theory and practice of formative assessment and feedback. The same Chapter explains that formative assessment is now widely accepted as a valuable pedagogical strategy at the teachers' disposal to improve learning. Chapter 2 also discusses how Black and Wiliam (1998a) recognise that formative assessment is often misunderstood by teachers and therefore translated poorly into practice. This recurring theme is mirrored in most of the literature contributing to this study and there is a plethora of published literature which offers advice to teachers on implementing formative assessment and how to structure feedback. This raises the question why a study such as this is needed. The literature introduced and discussed in Chapter 2, is well-known and widely used by researchers in this field of educational research. What is distinctive about this study is that it seeks to bring together ideas that have the potential to effect change in a GFE college context by collating and synthesising ideas from primary, secondary, further, and higher education. This provides a broad theoretical and contextual framework upon which to ground the research. It also makes practical and useful suggestions surrounding ways that student achievement and engagement in GFE might be improved through more appropriate approaches to the provision of assessment feedback. One of the most revealing findings of this study is the effect of grades, scores, and praise. I did not expect at the beginning of my research journey that this would be a primary feature as the practise of giving this type of feedback is engrained in institutional policies and the structure of many courses in GFE colleges. Data and findings in this study support the claim that grades and scores are not an essential feature of formative assessment, and there are other types of feedback that are more useful and powerful in affecting positive change and improvement in student learning and achievement.

5.6 (2) Methods of data collection. Number of participants

The findings presented in this study are based on the collection and analysis of qualitative data derived from student and teacher interviews and direct observations of student's behaviours in classroom sessions in a small-scale research study conducted by a sole insider-researcher. The interpretations of the transcripts might be questioned in terms of their trustworthiness on the basis that human experience is communicated and understood according to individual interpretations, values, and beliefs. It might also be argued that I may have unwittingly led a participant to respond in a certain way during interviews through the way I structured a question or in the intonation in my voice, and this should be regarded as one of the limitations of the study. Chapter 3 discusses the context and the guiding logic that informs the ontological, epistemological, and methodological stances and the methods employed in this study. The guiding principle for the choice of methodologies and methods resides in the research question(s) framing this study. The purpose of this study is to address these research question(s) (Crotty, 1998). Assumptions made regarding the reality and nature of the social world (ontology) and how it can be known (epistemology) form the basis of the theoretical and conceptual frameworks underpinning this study. Chapter 3 explains that the ontological position adopted in this study is constructivist in that it is assumed that reality is neither objective nor singular, but that multiple realities are constructed by individuals. Chapter 3 also explains that the epistemology that underpins this study is interpretivist, in that it is assumed that direct knowledge of the social world is not possible, and it is the accounts and observations that provide indirect indications of phenomena, and that knowledge is therefore, developed through a process of interpretation. Justification for the methodology and methods chosen to conduct this research is also provided in Chapter 3 where it explains that the methodology or logic employed in this study is ideographic or inductive in that it begins with particular cases and moves toward what may plausibly and incrementally be inferred to be more general. In contrast to a realist ontological and a positivist epistemological position, this research does not seek to attain objective truth or pursue certainty. Instead, it seeks to gain knowledge through interpretation of accounts of experiences and face-to-face interactions with the participants in this study in relation to how they construct their own realities and to interpret the meanings that they assign to things by viewing and reporting phenomena through their eyes. To sum up, at the heart of this study is the understanding that individuals construct multiple realities and although experiences of the teacher and student participants in this study may be similar, their constructs are unique and individual and must be interpreted as such. Chapter 4, the analysis of the findings shows the systematic way in which the process of data analysis is conducted. It invites readers of this research study to, “look where I did and see what I saw.” (Peshkin, 1985, cited in Connelly and Clandinin, 1990, p.8) and decide and judge if the conclusions laid out in this chapter are plausible, credible, and drawn based on the basis of evidence and therefore, trustworthy. The question of subjectivity is dealt with in the thesis on the grounds that it is constructed and interpreted from analysis of accounts of experiences and has not been created out of nothing or imposed upon individuals. The participants in this research are acting freely and the findings have been arrived at through systematic analysis of interactions and the interpretation of meaningful data provided by the participants, who are interacting with rather than reacting to their environments (Arthur et al, 2012). This explanation may offer the reader of this research some assurance that the question of subjectivity has been addressed. However, it is not possible for any researcher of any stripe, regardless of the theoretical perspective taken to completely eradicate questions of bias and subjectivity. For example, a positivist researcher collecting quantitative data can chose to present the data in multiple ways using graphs and charts. The values chosen for the axis can be altered to present data in a more (or less) favourable way. The responsibility to assert that the approach to data analysis adopted in the study, the research findings which have emerged from, and the claims made as being trustworthy resides in the evidence that the data has been interpreted using a robust and systematic approach and reviewed and reported with integrity. At the beginning of this section of Chapter 5, I acknowledge that my research may be questioned due to the plausible conclusion that a reader may make in relation to the ontological, epistemological, and methodological assumptions which underpin this study and therefore, the interpretations of the interview transcripts may be questioned. The philosophy underpinning the research perspective adopted in this study goes some way towards addressing this concern. Chapter 3, describes and discusses the reflexive approach I adopted and adapted as the research process progressed. Being a sole researcher is a lonely journey and without a fellow researcher to discuss and agree the findings, the understandings drawn from the data are solely mine. Reflexivity provided me with a framework from which to analyse my approach to data analysis and my practice, and to critically ask myself if bias was influencing my research in any way. Taking a step back and being prepared to be honest with myself and accept some self-criticism was important in ensuring that the findings communicated in the research are, to the best of my knowledge, an authentic account of the student and teacher participants experiences, and that these are reported with care and published in this research study with integrity. It might be argued that I maintained power over the students during the interviews as not only the adult, but also as their teacher and as such they might have responded in a way that they thought I expected them to. To address this, interactions with students during interviews are limited and restricted to open questions requiring the participants to recount their own personal experiences. The students know me well as I have been their teacher for two years (in some cases longer) and they are interested in the research. Hogan (1988) cited in Connelly and Clandinin (1990) remarks on the empowering nature of the participants and researcher relationship suggesting that for participants to recognise the value of the relationship they need to experience feeling of "connectedness" and this evolves over time. She further highlights the need for participants to experience equality as they each deserve to have their stories listened to and recounted by the researcher in the way that they were originally told. I found each of the participant stories to be unique and different with some revealing some deeply personal and emotional experiences which they would have not shared had they not felt invested in the research or uncomfortable with me or the environment in which the interviews took place.

A further limitation of this research study may be the incommensurable nature of qualitative data as the richness contained in the interview transcripts and observation records require careful analysis so that their essence can be drawn out. Chapter 4 affords readers of this research with an element of transparency using direct quotes from the interviewees. Their words describe the richness of their experiences and the meanings that they ascribe to them. The students and teachers' words have been used exactly as they were said. Sentences are not altered to make them grammatically correct, therefore the risk of misinterpretation is minimised. The analysis of the data in Chapter 4, uses an approach to data analysis put forward by Nowell et al (2017). Nowell et al, provide a framework for data analysis that is consistent and systematic and a description of the application of their framework in this research study is provided in detail in Chapter 4. The robustness and inductive logic applied to the data analysis offers readers of this research some reassurance that although all the data collected for this study is qualitative, there is transparency and trustworthiness in the way it has been systematically analysed and that the results are disclosed fully with sufficient information that could be checked and verified by another researcher (Arthur et al, 2012).

5.6 (3) Generalisations (or perhaps more appropriately fuzzy inferences)

This research study seeks to address a problem identified in the context of my own practice and those of my colleagues in one GFE college environment. This small-scale localised study aims to address an enduring educational issue related to the theory and practice of assessment that is of interest to me and my colleagues. It involves analysis of the lived experiences of teachers and students within the boundaries of the GFE college setting where I work. This research provides data from one case to analyse, interpret, and convey in a plausible way so that anyone reading this research study gains insights not only into the setting in which the research is set, but also how this may (or may not) relate to GFE college settings beyond the context in which I work. As explained above, generalisability is perhaps an objective that is not achievable when undertaking qualitative research using a constructivist - interpretivist approach such as this, as certainty and objective truths are not being sought. The findings offered in this research study are my interpretation of the student and teacher participants words and actions. The study invites readers to judge my interpretations of the data presented in Chapter 4 and to decide if the arguments put forward are reasonable, plausible, convincing, and if they have wider relevance or application to their interests and educational setting (Crotty, 1998). There are of course, differing opinions of whether generalisations can be made from one context to another. Lincoln and Guba (1985) suggest that in providing rich descriptions that capture the soul and character of the case being investigated, then perhaps application to other contexts may be seen. Bassey (2003) reveals in a change of heart from his previous arguments in the 1980's where he uses the term 'fuzzy generalisations' to suggest that it may be possible to generalise (or at least plausibly infer) from a single case, toward what may be more general. Bassey rationalises this further where he advocates for a best estimate of trustworthiness as what can be reasonably considered to be true can also be considered as not true. Chapter 1 seeks to address this by providing a full description of the context in which this research study is set together with an explanation as to why the research is required in this GFE college setting. The purpose of the research is made clear so that the reader can decide early on if the research has relevance for them and if it is worthy of them investing the time and effort involved in reading the whole study. In comprehensively setting out a clear purpose, Chapter 1 establishes the credentials for the research as these provide the research question(s) that underpin the theoretical assumptions that in turn inform the methodology and methods selected to conduct this research. This information is vital. I am asking people to believe in the credibility and trustworthiness of this research and accept that the findings have been arrived at through the application of a systematic and rigorous process that will stand up to questions and criticisms.

5.6 (4) Feedback strategies

The systematic approach taken to analysing the data in Chapter 4 and the subsequent findings detailed in this Chapter have brought to light several feedback strategies that have the potential to effect positive change within the GFE college environment in which the research is set. The findings are discussed in the following paragraphs in the context of their limitations.

A finding emerging from systematic analysis of data in Chapter 4 presents a strong argument in relation to the improvements the students made between their first and second piece of work. Most students engaged with the feedback and used the class time to develop their original piece of work. This suggests that this strategy had a positive impact on student learning and achievement in the short term. However, it is not possible within the time frame of this study to assess the longer-term impact on the students. However, what was seen and discussed in Chapter 4, is the shift in the students' attitude to their learning.

A further finding of this study is based upon strong evidence in the data of students developing autonomy in their learning and taking responsibility for improvements required to develop their work. This required active engagement with the feedback offered and this was sometimes challenging and uncomfortable for them. The main point to note here is that despite this, the students involved in this research still engaged with and acted upon the feedback. However, as Wiliam (2018) contends, learning is hard, challenging, and difficult and if there is no pressure of responsibility or accountability for acting upon the feedback offered, then there are no consequences for the student in passively ignoring the feedback offered. In such circumstances, it is not surprising that the students have little or no joy in learning something new. The learning challenge proposed by Nottingham (2016) places learning into four stages, plotted on a curve, moving the students on a journey from clarity to confusion and then back to clarity. When students are in 'the pit' of confusion, Nottingham suggests that this is when deepest levels of learning occur as students are initially confused but then begin to construct meaning for themselves, a 'lightbulb' moment occurs in which the students begin to develop new more complex ideas and make connections between these. This takes students out of 'the pit' back towards clarity where new learning is synthesised and applied. Being in 'the pit' is hard and requires the students to be active participants. As Coffield (2009) points out to students in his paper *All You Ever Wanted To Know About Learning and Teaching But Were Too Cool To Ask,* teachers do expect their students to work hard and to respond to their feedback. The time in class responding to formative assessments sessions involved in this study not only afforded students with the opportunity to improve their work, but also to see what success looks like and that success in learning does not always have to look the same. The in-class sessions adopted in this study required the application of a variety of learning skills and the taking of responsibility for this is shared between me and the students, with me providing the impetus and imperative for engaging learning and then guiding and supporting student learning, rather than directing or leading student learning. During these in-class-responding-to-formative-assessment sessions, I was always in the background to offer explanation and prompts, to interact, not to interfere, but to share the learning experiences with my students (Fisher, 2016). The time in class should not be underestimated in this research study, because the data analysis demonstrates the positive impact of this on the teacher-student relationship, peer relationships, a higher degree of willingness from the student to act upon assessment feedback, a willingness for students to engage in challenging tasks, and the development of student self-regulation and autonomy. However, it must be acknowledged that the students involved in this study, know me well. I have been their teacher in most cases for two years. Some of the students have known me for three or four years. Therefore, they know my approaches to teaching, learning and assessment and my expectations. They know that in my classroom, they are expected to work hard, and this is perhaps where one of the limitations of this study resides. When I implemented the time in class to respond to the feedback offered, whilst this was a new strategy, the students knew what I expected from their past experiences of other teaching strategies I use regularly. As discussed above, it is difficult (and often unwise) to make generalisations from one classroom to another and it may be (or not) that similar results would be arrived at if the strategy of time in class is applied in other contexts.

Another finding of this thesis is that, in repeating these experiences in each session, the students became more active and engaged, the students not only valued the time to reflect upon and improve their learning, but they also needed this time to develop their own learning strategies. As discussed earlier in this Chapter, whilst there is not yet a measure of the long-term impact of these strategies, during the period of this study, the findings in Chapter 4, provide evidence to support the claim that there was a growth in the students creative and critical thinking and an increase in their willingness to engage collaboratively in the challenging activity of responding to and acting upon formative assessment feedback. This finding lends support for and extends the claims made by Wiliam (2018), Clarke (2001, 2014) and other highly regarded researchers and renowned authors discussed Chapter 2.

Grades and scores have been discussed extensively in this research, and the impact of these, alongside the feedback strategies of time in class and using methods to ‘close the gap’ is a major finding of this study. The suggestion that grades and scores have no place on formative assessments is strong, however, this is perhaps where one of the limitations of this study also resides. Grades and scores were not given to the student participants on their formative assessments, so it is not possible to confirm in this study that had grade and scores featured in the feedback whether the results of implementing the time in class and ‘closing the gap’ strategies would be the same or different.

Acknowledgements of the limitations of this study may cause readers to question the trustworthiness of the research findings as there are inevitably some gaps in this study that require further investigation. However, this research seeks to provide a transparent, authentic, and trustworthy account of the experiences of the students, my own and those of other teacher participants in this research. This is achieved by demonstrating a systematic, robust, and transparent interpretation of their experiences following the justifiable theoretical perspective which underpins the conduct of this research. The limitations not only show consideration for the developments required to take this study forward but also the inadequacies that exist in the current work. I acknowledge that this is a small-scale study of one case and whilst generalisations may (or may not) be possible, it does offer insights into formative assessment feedback in one GFE college environment which may resonate with teachers and professionals working in similar environments.

5.7 Conclusion

The starting point for the chapter was to revisit the research questions and the conclusion returns to these by asking if the findings of this study have sufficiently addressed these questions.
The research sought to find out:

> RQ1 - To what extent is feedback on formative assessments read/listened to and acted upon by students and how could this be improved in practice?

As discussed above, this study examines the enduring educational issue of formative assessment feedback and how students can be encouraged to act upon it. Feedback is grounded in active learning and is one of the main pedagogical principles of formative assessment practice.

5.7 (1) Conclusion 1

Formative assessment is complex and translating the theory of formative assessment into practice is tricky. This involves more than simply telling a student what to do and expect them to be able to do it. Teachers need to be shown formative assessment practices that are practical and relevant to their educational setting.

5.7 (2) Conclusion 2

Formative assessment when done badly leads to disengagement on the part of the students and frustration on the part of the teacher. The data analysis discussed in chapter 4, suggest that there are key conditions that students require to be motivated to act upon feedback.

5.7 (3) Conclusion 3

Formative assessment feedback should avoid over-praising and giving grades and scores. Instead, directing students with comments that provide a solid base for them to work from and begin to move forward in their learning is useful to them. This has the effect of reducing competition between peers in the classroom by drawing students' attention to their own piece of work. Once the focus is on performance in relation to the task, rather than ego, students are more inclined to act as they are no longer fearful of the feedback and the judgement that it places on them.

5.7 (4) Conclusion 4

Time is a critical factor, not only in the length of time that passes between assessment and feedback but also providing students with the time and space to act upon feedback.

The supplementary RQ's asked:

> RQ2 - How can we help students to make more effective use of formative assessment feedback to improve learning and achievement?

Chapters 2 and 4 debate the value of grading and scoring students work as a form of feedback. Grades and scores will always be a feature of a GFE college, but to give students the best chance of achieving a summative task at the level they are capable of rather than the level they have been told they are capable of students need strategies, opportunities and experiences that encourage reflection on the work they have submitted to their teacher for review.

5.7 (5) Conclusion 5

Students' need encouragement through repetition to continue to use and develop these strategies so that they can be applied to future learning experiences, whether this be as they continue their education journey or into employment.

5.7 (6) Conclusion 6

Data from this study suggest that formative assessment strategies when implemented in ways that encourage active learning presents opportunities for collaboration between peers and between teachers and students. The value of the in-class sessions in developing these relationships should not be underestimated. Students gain knowledge from their peers, their teachers and in turn the teacher learns a lot about the way their students think and learn.

> RQ3 - To what extent are the strategies suggested by Clarke (2001,2014) useful in lessening teacher apathy towards feedback?

Shirley Clarke's feedback strategies are aimed mainly at primary school children and the dilemma when addressing this question is whether teachers in GFE college would be willing to engage in concepts believed to work more with young children. A second important consideration is how students view this type of feedback and whether they would feel it disrespectful to their age.

5.7 (7) Conclusion 7

Contrary to the concern expressed above, that students might find the use of highlighters on their assessments childish and patronising, data in Chapter 4 reveal that the students liked this method of feedback. When text is highlighted students have a quick and easy reference to the areas of their work where they met criteria and areas requiring improvements. The 'closing the gap' statements provide guidance on where the students need to go to next to make the required improvements. Data from this study also reveal that teachers using this method of feedback found this to be a quick way of marking and one that students engaged with when peer marking thus reducing their workload.

RQ4 - What do teachers say/do about the provision of feedback to their students?

RQ6 - To what extent do Awarding Body (AB) policies influence tutors' approach to providing feedback?

5.7 (8) Conclusion 8

The data in Chapter 4 reveal a consensus amongst the teachers interviewed that there is friction between their beliefs and that of boundaries placed upon them by policy makers within the organisation and externally from Awarding Bodies (Abs). Teachers feel overwhelmed with the amount of marking and become frustrated when students do not make the effort to act upon feedback, leaving them feeling that their time has been wasted. This study seeks to address some of these issues by proposing feedback strategies that work within current policies and have the potential to reduce teacher workload.

RQ5 - What do students say/do with feedback they receive from their tutors?

5.7 (9) Conclusion 9

Data from this study show that students do not respond to feedback when they feel that they are being judged or labelled. This threatens relationships and presents a barrier to moving learning forward. Students like not having a grade or score. Students are clear on their requirements. They need to know what they are doing well, where their gaps are and to be given advice on how to improve. If these elements are in place on formative assessments, then this provides students with the skills that are essential for summative assessments. When students are expected to make improvements in their own time, they often become demotivated, particularly if they are unsure of how to respond to the feedback. Providing time in class proved to be a key component of what students require from their teachers. The opportunity this provides for collaborative working authenticates the implementation of this strategy. Students can ask questions. Teachers can address misconceptions so that the same mistakes are not made on future work. Most importantly students collaborate and discuss their work with their peers and learn from each other. This creates a cohesive environment rather than one where students feel in competition with each other.

5.8 Conclusion

This research finds that motivation varies considerably from one individual to the next. The aim of the study is to find ways to increase student's levels of motivation whereby students are driven to improve their work because they find it enjoyable, challenging, and interesting to do so. The findings also illustrate that traditional feedback practices, such as grading and scoring serve as extrinsic motivators that should propel students to act but this outcome is rarely achieved. Finding ways to motivate students is the challenge in this study and the final chapter, Chapter 6 provides a critical reflection of the level to which this has been achieved. Recommendations encompass what has been learned from this study and suggestions for further research.

CHAPTER 6
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This Chapter begins with a summary of the study overall by firstly highlighting the main topics raised in each Chapter. Chapter 1 introduces the phenomenon investigated in the study and he context in which it emerged. Chapter 2, the Literature Review, critically discusses and reflects upon research and the contributions of peer-reviewed authors at the forefront of the field of formative assessment and current pedagogical principles and practices associated with providing assessment feedback to students in educational settings, ranging from primary school- aged children through to higher education. Chapter 3 provides a justification for the research methodology and philosophy that underpins the study and addresses the methods chosen to conduct the research. The same Chapter includes a description of the research participants and how ethical issues are considered and addressed using the guidelines laid down by The British Educational Research Association (2018). Chapter 4 analyses the data collected in the empirical study and provides an open and honest account of the approach taken to identifying themes from the qualitative data using the step-by-step approach proposed by Nowell et al (2017). The penultimate Chapter, Chapter 5, presents the research findings and seeks to explain the outcomes of the investigations undertaken in Chapter 4 and the judgements made following the data analysis in relation to the research questions. The same Chapter also addresses limitations of the study. This final Chapter, Chapter 6, presents the conclusions and recommendations emerging from this study guided by the research questions outlined below:

Main Research Question

> To what extent is feedback on formative assessments read/listened to and acted upon by students and how could this be improved in practice?

Supplementary Questions

How can we help students to make more effective use of feedback to improve learning and achievement?

To what extent would the strategies suggested by Clarke (2001,2014) help to lessen teacher apathy towards feedback?

What do teachers say/do about feedback? What do students say/do with feedback?

What do students say/do with feedback they receive from their tutors?

To what extent do Awarding Body (AB) policies influence tutors' approach to providing feedback?

Chapter 6, then makes recommendations on raising students' engagement with feedback through a range of in class interventions. The same Chapter concludes with suggestions for future research.

6.2 Overview of the Study

Twenty-five years ago, Black and Wiliam (1998), in their report *Inside the Black Box: Raising Standards Through Classroom Assessment,* found that despite extensive research showing the potential learning gains that can be achieved through well planned formative assessment, this is a practice that is often poorly understood and inappropriately implemented in classroom contexts. They identified several issues with the implementation of formative assessment. Their recommendations to improve formative assessment in practice centre on the premise that teaching and learning are dynamic, and interactive processes, that require careful consideration on the part of the teacher and the active involvement of the student in their own learning. Unfortunately, many of the formative assessment techniques investigated in their report do not necessarily lead to active learning if not supported by active learning strategies which require the student to take responsibility for and to be accountable for their own learning. A consequence of this is that some formative assessment techniques at best have little impact on raising achievement, or at their worst are detrimental to student learning. Despite this research, I like many of my fellow teachers in the GFE college environment where this research is set, fall into the trap of implementing formative assessment techniques that are poorly understood, inappropriately implemented and subsequently rather useless in raising student achievement. Like many of my colleagues, I find that the students in my class are often happy ‘doing the minimum’, just to do enough to pass. In other words, ‘horses are often spared.’ My students routinely avoided engaging in the challenging learning tasks I set them. They rarely read let alone act upon the feedback that I spend my precious evenings and weekends meticulously providing. Nevertheless, I (like the rest of my colleagues) ploughed on. We continued with our misguided formative assessment practice, believing that we are doing the right thing. In the process, we become increasingly troubled and frustrated because a research-informed technique that was supposed to work in practice was clearly not working, and we did not know why. In discussions with colleagues, I began to realise that they are experiencing the same disappointments and frustrations as I am. Some of us blame our students and label them as ‘lazy’. At this point, I had no option but to stop and think more carefully about my practice, as it is too easy to blame the students. The students choose to come to college to do the course. The puzzle, therefore, is why is it that the students are not motivated to do the best they can. Initially, I found it difficult to understand why they were not willing to go beyond superficial and instrumental approaches to learning and to enthusiastically explore educational topics to deepen their knowledge. The answer had to be in my own practice and the practices of my colleagues. Getting to the root of the problem required me to face the harsh fact that despite my good intentions, something was fundamentally wrong in my assessment practice. Thus, my research journey began, and this thesis is the outcome of that research.

6.2 (1) Chapter 1: Problem and context

Chapter 1 presents the background to the thesis and the nature of the problem as seen through my eyes as a teacher with 14 years’ experience in a GFE college environment. The Chapter explores the history of the theory and practice of formative assessment feedback. It introduces some of the key literature that is subsequently critically analysed in Chapter 2. The Chapter discusses why this research study is both necessary and important. There is no shortage of educational literature offering advice to both new and experienced teachers on how to go about formative assessment. However, despite this, formative assessment does not appear to be working in practice. This conundrum is what provided the impetus and momentum for this study. There is no shortage of respected and peer-reviewed authors in the field of formative assessment who offer advice to teachers about good classroom practice. However, there is a widening gap between the theory of formative assessment and the practice of formative assessment. It is this gap that led to the formulation of the research questions as detailed in 6.1 and the title of this research study 'Mind the Gap'. A further motivation for this study can be found in the need to address the frustrating problem of formative assessment I see in my own practice and that of my colleagues. The primary objective of formative assessment is to raise student achievement. However, our assessment practice was letting us and our students down. Chapter 1 argues that assisting teachers in developing their formative assessment practices in ways that ultimately reduce teacher's workload while improving student experience and learning is a bold aim. Nonetheless, it is worth the effort to find out what is going wrong and how practice can be improved upon given the potential learning gains to made.

6.2 (2) Chapter 2: Literature review

Chapter 2 introduces peer reviewed seminal texts in the field of formative assessment. It discusses and critically analyses a range of theoretical frameworks put forward by authors and researchers in this field of study. The Literature Review underpinning this thesis shapes the story that frames this research study. The best way to describe this chapter is a 'wobbly road'. In Chapter 2, the focus is upon the theory and practice of formative assessment, and this remains at the forefront of the discussion. However, there are several kinks along the way. Formative assessment is not a straightforward activity. Firstly, there is the language to unpick. The differences between formative and summative assessment are often misunderstood and the lines between the definitions are frequently blurred. Feedback is intertwined with formative assessment, but it can also be part of summative assessment. In short, every from of assessment involves making a judgement. As the Literature Review reveals, it is not always possible to make a distinction between these terms. The justification for the definition of formative assessment used in this study is based on the exploration of the relationship between formative assessment in the GFE college environment in which the research is set. A second kink in the road can be found in the discussion on mindset and motivation. This draws the literature review into the exploration of issues surrounding ego related feedback compared to task related feedback and effort in relation to progress in learning made by students. Bias in teacher marking illuminates a further kink in the road as does the powerful influence of the teacher and student relationship upon student learning and achievement. My reasons for including these topics in the literature review is because they discuss factors that have the potential to impact on formative assessment and ignoring these would limit the study to a discussion on the merits of competing theoretical frameworks, thus potentially contributing to widening the gap between theory and practice. In Chapter 2, common threads are found between the works of multiple authors on aspects of formative assessment where they draw attention to the importance of 'closing the gap' feedback. This brings into view, the central role of providing time to act upon feedback in class, the value of well-focussed learning intentions and goal setting, and the learning gains that can be derived from strengthening formative assessment by combining it with active learning strategies which require learners to be responsible and accountable for acting upon the assessment feedback they have been offered by their teachers. The Chapter concludes by acknowledging that there is no quick fix. The problems with formative assessment are complex. However, there is potential to bring together some of the ideas put forward by multiple well-respected authors in putting formative assessment into educational practice in ways that have the potential to bring about active learning and raise student achievement in the GFE college environment where this research is set.

6.2 (3) Chapter 3: Research design and methodology

Chapter 3 provides justification for the research methodology and philosophy of education that underpins this empirical research study, and justifies the methods and logic chosen to conduct the research. The Chapter starts with a discussion on different forms of knowledge and how what is assumed to exist can be known. Establishing this at the beginning of the Chapter is important as it shows that critical consideration is given to what distinguishes different forms of knowledge claims and the competing paradigms surrounding current debates in the conduct of educational research. Whilst bearing in mind the aims of this research study, the discussion of the relationship between the ontological, epistemological, and methodological perspectives is explained and justified in the chapter including, how these inform the choice of data collection methods. The research position taken in this empirical study is underpinned by a constructivist ontological perspective combined with an interpretivist epistemology. The rationale behind this, is that this is a study of lived experiences of teachers and students. As such, this study investigates the theory of formative assessment and the pedagogical approaches involved in providing feedback to students through the interpretation of the lived experiences of teachers and students who are at the 'coalface', as every day they are experiencing the phenomenon of formative assessment in action. Additionally in adopting an interpretivist epistemology, it allows me as the sole researcher to interact with and interpret the experiences of those who participated in this research. In doing so, this enabled me to gain a deeper sense of the participants' experiences and feelings which would not have been possible had I just been 'a fly on the wall' observer. Insider research can leave the researcher open to questions of the trustworthiness of the findings of their research on the grounds that it is possible that their own assumptions, values, biases, and perspectives influence the research process and outcomes. To address my commitment to ensuring that this was at the forefront of my mind when interpreting the data, I used a process of reflexivity which I documented in a diary. Reflexivity provided me with a framework which allowed me to consider and discuss my own motives and feelings as I constructed this research. The process of reflexivity is explained in detail in Chapter 4.

6.2 (4) Chapter 4: Data analysis

Qualitative data is collected using semi-structured interviews and observations of students in my own classroom environment and those of my colleagues interacting with me as a teacher researcher. The students who participated in this study were selected from two classes of students studying a Level 3 course in Childcare and Education. The teachers who participated in this research were a random selection of teachers across different curriculum subjects teaching students from Level one to Level three. The participants in this study are all knowledgeable about the about the phenomenon of formative assessment because they are living it. The two methods of data collection provide rich information of the participants experiences and the approach to analysing the data is the step-by-step thematic analysis phases suggested by Nowell et al (2017). This is an in-depth six phase process requiring the researcher at each stage to be reflexive and to question their interpretations by exploring their own motives and feelings to check that these are not influencing how the data is being interpreted. The chapter starts with a justification for the choice of the Nowell et al approach to data analysis. Throughout the chapter readers of the research are invited to review the transcripts of the participants through the inclusion of their words and worlds. The initial analysis involved a laborious task of identifying key words and phrases in the interview and observation transcripts. This required reading and re-reading the transcripts several times to ensure that no information was missed. This high level of scrutiny facilitated the development of four themes:

1. Impact of grading student work
2. Components of feedback
3. Feedback strategies
4. Time to act on feedback.

The development of these four themes is a major turning point in the chapter. It is through this process that connections are made between the interpretations of the interviews and observations, the Literature Review in Chapter 2, and the research questions posed. In Chapter 4, support is found for key points made in the literature review. A consensus is found between the literature, student's views on grades and scores and what the students said they needed feedback to tell them. The word motivation in various forms (motivates, motivated, motivator, motivation) occurred most frequently across all the transcripts and this mainly stemmed from the student's descriptions of their willingness to act upon the feedback from their teacher. This led to one of the most significant findings in the study, as motivation to improve is connected to the time and place afforded to the students to make the improvements to their work. Not only time, but time in class to do so with the support of peers and the class teacher. Whilst this concurs with the literature it became clear that this builds and supports the work of well-known and well-respected authors such as Clarke (2001, 2014). It also became apparent that, it is not simply about providing time in class, but about creating a collaborative and active environment where students not acting upon the feedback offered by their teachers is simply not an option.

6.2 (5) Chapter 5: Research findings

Establishing trustworthiness of the findings in Chapter 5 is key to the findings of this research being accepted by and useful to the readers of the study and the wider academic community. Chapter 5 seeks to address questions of credibility through the triangulation of evidence from the data analysis process discussed in Chapter 4 and from key arguments and ideas put forward in Chapter 2, the literature review, whilst also acknowledging the limitations to the study. This research study brings to light several important findings. For example, using formative assessment which requires students to engage in active learning, achievement can be raised if the correct pedagogic conditions are put in place where students must act upon the feedback they receive from their teacher. This is related to the fact that students' have little to no motivation to improve their work when feedback plays only to their ego, includes little feedback concerning the progress they are making, or when the expectation for them to act upon the feedback is low. The last point is evident in the data analysis in Chapter 4. Although all teachers expect the students to act upon their feedback, they rarely put in place the right conditions for the students to do so. When students are left to their own devices to act upon the feedback, they either do nothing to improve the work if it has achieved a pass, or they do the bare minimum to bring it up to a pass if necessary. Shirley Clarke (2001, 2014) advocates time in class to act upon feedback, but this research reveals that this involves much more than simply providing the time. The crucial feature brought to light in this study is the importance of the collaborative environment that is created when the teacher works alongside the students, and the students work alongside each other supporting, and scaffolding learning. My students are frequently able to articulate knowledge in class that does not get transferred to the paper-based tasks. It is through these discussions that as a teacher I gain insights into the student's capabilities and misconceptions in relation to the topic being studied. The value of this cannot and should not be underestimated. A key finding of this study is that feedback should be interactive, the student needs to be an active participant rather than a passive receiver of information. Providing time in class sends a clear message to the student that they are (publicly) expected to do something. The public element is important because, providing time in class for students to act upon the feedback is a social act, one in which the students in the class can see how much or how little effort each other is putting into the improvement of their work. This puts a level of constructive pressure on students as they are perhaps more motivated to present themselves in a good light to the teacher and to each other. The task may be challenging, and they may feel uncomfortable, but they are presented with no option other than to act upon the feedback. Another finding from the study is the peer-to-peer learning that takes place. When given time in class to act upon feedback students are encouraged to share their work in a cooperative way rather than being placed in direct competition with each other. Another key finding of this study is that feedback that encourages competition, is judgemental or encourages comparison between peers is detrimental to learning. Grades, scores, criticisms, or meaningless praise in feedback have no place in formative assessment. As soon as features such as 'grades, scores, smiley face, you worked hard, great effort, well done', appear in feedback, learning stops. The student has nowhere to go with this information. The data analysis process discussed in Chapter 4 provides evidence that is particularly critical of grades and scores. It reveals how the student participants only saw the provision of grades and scores as a threat, something to worry about regardless of whether they received high or low grades. The Literature Review, Chapter 2 draws together theories from many prominent authors in this field of study about the key features of feedback. The findings in this study correspond with their ideas and findings that for feedback to have the desired outcome there are three key features that are required. Firstly, an understanding of the goal or learning intention. Secondly, the progress being made in relation to the goal and finally what is required to close the gap between current and desired level of knowledge.

Chapters 2 and 4 highlight how the research questions are addressed through the critical evaluation of seminal literature and the analysing and interpreting of data obtained through semi structured interviews with teachers and students and observation of students in their classroom setting. The robust, honest, and open nature of the approach taken to formulating and discussing the themes in the data provide a level of trustworthiness regarding the findings detailed in Chapter 5. Insights are offered into how the findings have the potential to impact within the GFE college environment in which this research is set but perhaps also in the wider GFE college community.

6.3 Conclusions

This section of Chapter 6 addresses the conclusions in relation to the research questions listed in section 6.1.

6.3 (1) To what extent is feedback on formative assessments read/listened to and acted upon by students and how could this be improved in practice?

To provide context to this question it is important to summarise the general experiences of the student and teacher participants in this study who come to college at age 16 from school following the sitting of formal summative assessments called General Certificate in Secondary Education (GCSE). The expectation is that all students will take GCSEs in English, maths and science and a selection of subjects of their own choice, including technical qualifications, social sciences and modern foreign languages. GCSEs are graded from 1 to 9. Grade 1 is the lowest score and 9 the highest with Grade 4 being the pass grade. Students, coming to college have mostly been in mainstream education since the age of 5 and have therefore experienced a range of assessment methods and teacher feedback. In the latter two years of their school education, the focus is on grade achievement to prepare students for the GCSE summative assessments. Students deciding to come to college are mainly choosing vocational courses. Some will also be entered into GCSE resit classes for English and maths if they have not yet achieved the required Grade 4. The teacher participants selected for this study teach on vocational courses. They have all worked or continue to work in the vocational area that they are teaching and have professional qualifications relating to their industry. The teachers are all qualified to teach in the GFE college sector as they have completed the mandatory teacher training course. Outlining the individual experiences of the participants is important when considering the conclusions in relation to the main research question as prior experiences have a direct influence on attitudes to feedback. The student participants come to college knowing the Grade they are working at. They often define themselves by this in interviews prior to entering college and they know that their Grade achievement at GCSE will determine the course level they can do at college. The teacher participants have studied their own vocational subject and been the receivers of feedback. They have undertaken a formal teacher training qualification so it can be assumed that that they have experience of feedback from both a student and professional perspective. This background knowledge provides the framework from which to answer this research question. The student responses in the data analysis in Chapter 4 reveal that students generally do not read, listen to or act upon feedback. Students have become fixated with grade achievement and are so focussed on this that any effort that the teacher puts into giving accompanying written feedback is lost. Teachers' feedback generally emphasises Grade achievement and confirmatory sentences rather than useful advice about the learning process and how this can be improved. The second part of the research asks how formative assessment could be improved in practice and this is embedded in the findings in Chapter 5 and the summaries above. Data from this study suggests that there is room for improvement in the practice of formative assessment and the recommendations discussed later in this Chapter considers how these ideas might be taken forward.

6.3 (2) How can we help students to make more effective use of feedback to improve learning and achievement?

Chapters 2 and 4 present the analysis of literature and data collected during the process of this study. In bringing together the theory of formative assessment with its practical application in the classroom, a gap is found between the two. Formative assessment is complex and translating the theory of formative assessment into practice is tricky. Telling a teacher to read a book or to carry out some research about the practice of formative assessment and feedback is not enough. Teachers need to be shown and be able to grasp that formative assessment practices must require students to engage in active learning in activities that are practical and relevant to their educational setting. There is perhaps a misconception, that following a period of teacher training and obtaining a teacher training qualification that teachers are equipped with the knowledge and skills to know how to put into practice formative assessment techniques that engage students in active learning. The data from this research study reveals this not to be the case. Whilst teachers seem to know the theory of formative assessment, there seem to be barriers in place to putting these into practice. Teachers talk about lack of time and the hundreds of pieces of work they must mark. The quality of the feedback given to students diminishes because of these pressures. The consequence is that teachers continue with the poor practice which are of little benefit to them or their students. Additionally, students need to know how to act upon formative assessment feedback. As with the example of teachers needing practical techniques to know what successful formative assessment looks like, so do students. This involves so much more than simply telling students what to do as evidenced by the students' words transcribed in Chapter 4, when the students say that they do not know what the teacher expects them to do or how to do it. Chapter 5, the research findings, provides a coherent account of the findings drawn from the interpretations of the students and teachers participating in this research, by reviewing the phenomenon of formative assessment through their eyes and reflecting critically on the messages conveyed through the recounting of their lived experiences. In most cases, the significance of the messages communicated in the interview and observation transcripts, support the theoretical arguments and concepts examined in the Literature Review in Chapter 2. There is also a consensus between the two chapters in this thesis in relation to the use of ego related feedback and the detrimental effects this has on learning. There is agreement on the essential ingredients that formative assessment feedback needs to contain to foster student engagement with it to raise achievement. The final point brought to light in this study, in relation to the research question of how we can help students to make more effective use of feedback to improve learning and achievement, is, that students need to be given time to act upon feedback offered by their teachers. As discussed above, both teachers and students need to be able to see what success in formative assessment looks like. Students and teachers need to see that the technique being employed is working, and that they are both benefitting from the time allocated in class for students to act upon the feedback. It takes confidence and courage for teachers to hand over valuable class time to this exercise. Evidence from the data in this study show that there are gains to made in employing this strategy. The transcripts also reveal some new contributions to knowledge regarding time provided in class. It is not simply about providing time, but purposely setting up an environment that is collaborative and cohesive with active learning being the central feature. In doing so, students can be helped to make effective use of feedback. The teacher is available to answer questions, address misconceptions and to drive learning forward. The aim of the in-class sessions is not only to foster the development of student's engagement with feedback to make improvements to their work, but it also encourages the development of many other skills, such as self-regulation and autonomy. Skills that are essential and can be applied to all current and future learning whether this be in education, training, or employment.

6.3 (3) To what extent would the strategies suggested by Clarke (2001,2014) help to lessen teacher apathy towards feedback?

Reflecting on this question that was constructed at the outset of this research study, I can now see that it is perhaps an unfair question as it is equally unfair to label teachers as lazy as it is students. Teachers in general are not lazy and in fact most work many hours beyond their paid contracts to provide excellent teaching, learning and assessment experiences for their students. Perhaps, when structuring this question, I was thinking about my colleagues who described their learners as lazy for not acting upon the feedback that they had spent valuable time constructing, and that their apathy related not to their unwillingness to provide feedback but their reluctance to find out the cause of students not acting upon the feedback. An alternative explanation for this research question, may be my thoughts around teachers knowing the techniques of formative assessment feedback, but not knowing how to put these into practice in ways that promote active learning. The transcripts and interpretations of the teachers experiences in Chapters 4 and 5 show that workloads are huge. Teachers mark a tremendous volume of assessments, and it is therefore unsurprising that feedback often diminishes to short remarks such as 'well done' or 'good point' with only those not achieving the desired outcome being given advice on improvements. Feedback, particularly grades and scores, as Chapter 2 argues are not feedback, and serve mainly managerial and Awarding Body requirements. Whilst it is acknowledged in this study that this cannot be avoided on summative assessments there is no reason for formative assessments to be graded. I am convinced that there are many teachers, particularly those teaching maths and English GCSE resit classes, who will disagree with this, but as Clarke (2001, 2014) suggests, there are ways of marking work that are quick and easy that tell the student everything that they need to know about their progress and gaps without giving a grade or score. Some of the teachers interviewed in this study apply Clarke's ideas adapting it to meet the needs of their students. They find the use of one colour to highlight where the student has met the criteria provides the student with a quick reference to places in their work that demonstrates their understanding of the task. A different colour is used when criteria has not been met and the teacher adds a scaffolding note prompting the student towards improvements. Imagine an English assessment marked in this way. Immediately the student sees where they have understood the learning intention and where they have not, and the teacher's prompts aid improvement. An additional advantage of this, is the teacher's expectation that all students will achieve the learning objective through the individualisation and differentiation of the prompt statements. This means that all students, regardless of ability or quality of the work are expected to make improvements. Data from this study suggest that this method of marking is far more meaningful and useful to the student than a grade, and ultimately teachers' workload is reduced as the teacher and student work collaboratively together in the time in class sessions to make the improvements. Furthermore, once students are familiar with this method of feedback they can use it to peer mark, which will reduce the amount of marking the teacher is required to do.

6.3 (4) What do teachers say/do about feedback? What do students say/do with feedback?

Elements of these questions have been addressed in paragraphs 6.3 (1) (2) and (3). In relation to what teachers say/do about feedback there is strong evidence in the data from this study that they want to provide feedback that is useful to their students, and they do expect their students to act upon the feedback they have been given. The teachers interviewed in this study use a variety of feedback strategies such as the highlighting method described in 6.3(3), written comments and verbal feedback. However, it seems that regardless of the feedback strategy used, all the teachers interviewed felt that their feedback is rarely acted upon, and this is a source of frustration. The findings of this research study show that it is not necessarily the lack of feedback that is the problem but what is included in the feedback and the way it is structured. This study has established that grades and scores within feedback cancel out any of the comments that are made, whether these be verbal or written. The students themselves tell us that they rarely read or listen to feedback when the work is awarded a grade or score. This becomes the dominant feature and, as can be seen from the student's comments in the research findings in Chapter 4, there are many negative emotions that dominate when work is graded or scored regardless of whether the grade is high or low. The teachers interviewed in this study also carry many misconceptions about feedback, and this is where there the gap between the theory of formative assessment and the practice of formative assessment resides. When interviewed some of teachers commented that they highlight throughout a students work where they have done well, using comments such as 'well done' or 'good point.' If the work is a high standard, students rarely receive feedback beyond these confirmatory statements. Interestingly when the teachers were asked what they thought feedback should contain, they all said that the students need to know what they are getting right, what they are not getting right and targets for improvement. The conclusion drawn from this is that although the teachers know the techniques and theory of formative assessment and what feedback should look like, this is rarely translated to students in ways that are meaningful and useful to them. Teachers comment that lack of time is a factor and that they also feel constrained by GFE college Awarding Bodies. It is evident from the students' comments that they have a desire for feedback that is not judgemental or critical. Chapter 4, the data analysis includes several direct quotes from students who see feedback as a threat, something to dread rather than to embrace and use to improve their work. The students are clear on what they require from feedback if it is to be of any use to them. They need to know where they have met criteria, where they have not and guidance on how to develop their work without judgement being placed upon them. The most important thing students need is the time to act upon the feedback with the teacher or peer who has marked the work.

This is important for several reason. It provides students with the space to ask questions about the feedback particularly, if they do not understand what the teacher or peer has written. It fosters the development of positive relationships between students and the teacher and between peers. And perhaps the most significant conclusion of providing time in class is it provides a space that requires active learning and encourages students to attempt challenging tasks and to be responsible and accountable for their progress.

6.4 Recommendations/Implications for Practice

The aim of this study is to undertake a critical review of formative assessment practices within the GFE college environment where the research is set to gain insights into how this can be improved in practice to raise learner achievement. The recommendations are grounded in what the study has found from the exploration of one case and the areas regarded as critical for improving formative assessment practices within that environment. These areas are, removing grades and scores from formative assessments, providing feedback using the three components discussed extensively in this study, and providing time in class for students to act upon feedback.

6.4 (1) Removing grades and scores from formative assessments

There is little doubt that this is the most controversial recommendation because grades and scores on students work in GFE college environments is so ingrained in practice and it seems almost impossible to imagine excluding these from formative assessment feedback. I have however, presented a strong argument for this recommendation based on the student's voices and the critical review of literature in Chapter 2. Students tell us, that grades create nothing other than negative feelings. Feelings that are barriers to learning. If we want students to read and act upon feedback then we must shift the students' focus from a letter or number symbol that tells them nothing about their learning to the progress they are making to practices that celebrate their achievements, tells them where their gaps are and offer advice on how to make improvements to their work. The benefit of this is that all students must put in effort to improve their work, as every student regardless of the quality of the work has a target to achieve. This is challenging but also motivational for all students. A student who, perhaps, has historically been awarded top grades may never have the opportunity to benefit from advice on developing their learning. Students that historically receive low grades may resent the amount of work they are required to do to make improvements, especially if they see the higher achieving students doing nothing. The important aspect of this recommendation is that it relates to formative assessments, all the tasks that happen in classrooms every day. Data from this study support the view that it is through these that students develop their attitudes to learning, and if they are never challenged then they become passive receivers of information. When feedback demands that action is taken students become actively engaged in the learning process. It removes comments such as ‘I am happy with my C grade’ or ‘I do not need to do anything else as I have an A.’ Once the student has put in all the hard work on the formative assessment the skills and learning they develop is reflected in the summative assessments that will carry a grade.

6.4 (2) Providing feedback to ‘close the gap’.

Removing grades and scores opens the door to providing feedback that students can engage with and act upon. The conclusions of this study, establish that teachers know the techniques of formative assessment and what useful feedback should contain, but there is a gap between knowing the theory and putting it into practice. The study acknowledges that teachers in a GFE college environment undertake huge volumes of marking and that this is a factor in the quality of the feedback that students receive. When the pile of student work to be marked is forever growing it is easy to slip into poor feedback practices that are meaningless to the student. Teachers need to be shown ways of providing feedback that contains the essential elements without adding to their workload. This is where the strategies put forward by Clarke (2001, 2014) and many other educational researchers and renowned authors can have the biggest impact as there are quick and simple ways of putting their theories into practice. There is a consensus that feedback should tell a student their progress in relation to the learning intention(s), where their gaps in knowledge are and prompts to help them to ‘close the gap.’ There is a quick and simple way this can be done by using the highlighter method advocated by Clarke (2001, 2014) and described above in 6.3 (3).

6.4 (3) Providing time in class for students to act upon feedback

Funding for courses in GFE college environments is a sensitive topic as schools tend to receive the lion's share of the education budget leaving the GFE college sector at a disadvantage. This places a strain on managers when timetabling as they try to fit courses into the hours that the Government funds which is forever being cut. This in turn impacts on teachers in the classroom as they attempt to deliver the course syllabus into the limited number of hours allocated for the course. This makes this recommendation difficult to justify as I am asking teachers to give away some of their valuable class time to afford their students the time and space to act upon their feedback. However, what cannot be underestimated here is, as the data from this study suggest, the value that this adds to learning. I have presented evidence that the provision of time in class develops positive relationships between students and teachers and between peers. During this time the students are required to act upon the feedback they have been given, they are active participants. In responding to the feedback, the students are learning beyond their original piece of work and challenging themselves to make the improvements. The teacher during this time finds out information about how the students learn and their thought processes when attempting a task that would go unnoticed if students did the task independently, perhaps as a homework task. There is a high expectation for the students to act upon the feedback which as the students' state in their own words in the research findings in Chapter 4, that they would not be motivated to do if left to their own devices. The presence of the class teacher is significant and essential because they understand the learning intentions, they know what they want the students to achieve, and they are on hand to address any misconceptions. The two key ingredients here are collaboration and scaffolding. The longer-term benefits are the development of autonomy and self-regulation as the students become familiar with this part of the session and begin to lead it themselves often taking their learning beyond that of the teachers' expectations. Additionally, a further benefit of providing time in class is the opportunity it affords to both students and teachers to see what success in formative assessment looks like. As discussed earlier in this Chapter, there is a gap between knowing the techniques of formative assessment feedback and putting them into practice. For the time in class to be of use to the students the feedback techniques described in 6.4 (2) and

6.4 (3), must be actioned so that both the teachers and students can see these working in practice. The amount of time allocated and when to do this during a lesson will be a decision for each individual teacher, but my recommendation is that I found that 20-30 minutes at the beginning of a lesson works best. This is because the students can apply the new knowledge gained from acting upon the feedback to the lesson that follows.

6.5 Recommendations for Future Research

This small-scale study investigates formative assessment practices in one GFE college environment and how this can be improved upon to raise student achievement. The findings from this study reveal that there are some fundamental flaws in both the delivery and construct of formative assessments within this environment. The study establishes through the critical analysis of literature in Chapter 2 and empirical investigation that significant gains in learning can be achieved when there are good formative assessment practices in place. This being a small-scale study means that there are many avenues for further research as it is not possible to generalise and apply the findings in this study to similar settings without more in-depth investigations on a wider scale. It is important to acknowledge that each GFE college environment has individual features that characterise it and make it unique. For example, the setting of this research has three campuses. Although all part of the same GFE college group, each campus has its own personality based on its location in the county and the courses on offer. To take this study forward the following is recommended:

1. Extend the study across all three campuses of the GFE college environment where this research is set to gain insights into formative assessment practices that occur in each setting so that contrasts can be made. It will be important to do this before recommending any policy change that will impact all three campuses.

2. Widen the research to other GFE colleges and other educational settings to gain an understanding of formative assessment practices that are in place outside the organisation where the research is set.

3. The study identifies a gap between formative assessment theory and formative assessment practice and establishes that this is not necessarily because teachers do not know or understand the techniques or theory, but more because they do not know how to put them into practice in a way that does not add to their workload. Thus, they see the theory as just more work to do. Further studies on this apparent discord is required to find out why there is a gap between theory and practice and how this might be addressed by examining teacher training programmes and continuous professional development sessions.

4. This study is limited in the aspects of factors that affect the way in which students respond to feedback. The main areas investigated in this study focus on student mindset and motivation to act upon the feedback they have been given. However, exploration of literature in Chapter 2 reveals that there are other factors that may influence both the way in which feedback is given by teachers and received by students. The subject of teacher bias in feedback was touched upon and it was acknowledged that whilst this is an important aspect of feedback, it is not possible in this thesis to provide an in-depth analysis of this topic.

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5. Chapter 5 notes that this research thesis offers no comparison of student responses to feedback had a grade been included on the formative assessment feedback. Feedback was limited to the three strands discussed extensively in this study. A further study that includes grades with written feedback would offer a contrast, but this does contradict the findings in respect of ego-related feedback in this study.

6.6 The Research Journey: Final Remarks

This research journey started in 2019 when I joined Sunderland University Centre for Excellence in Teacher Training (SUNCETT) on their Masters short course sponsored by the Education Training Foundation (ETF). My first study titled ‘Lost in Translation’ investigated written feedback and students’ reluctance to act upon it. This research, I realised, only scratched the surface of the massive topic of formative assessment and this sparked a thirst within me to find out a lot more. My search for knowledge led me to progress onto a MPhil programme also with SUNCETT and then transfer onto PhD, part way through the MPhil. The first thing I had to wrestle with was the language of formative assessment and feedback and the many differing definitions depending on whose work I picked up. Trying not to get too stuck in the mud of unpicking the language I had a light bulb moment of realising that there is no separation between formative assessment and feedback, they are inextricably intertwined with each other. Bearing this in mind, my focus shifted to formative assessment practices within my GFE college environment, and the culmination is this thesis. Having come to the end of the journey, I still feel that I have only scratched the surface and there is more to do, and I can only assume that anyone with a passion for research and developing educational practice never comes to an end. This research journey has been quite a bumpy ride, not least because of a worldwide pandemic that caused me to stall in my progress. I cannot really explain why, other than like everyone else, I was thrown into the worrying and chaotic world of isolation and Covid 19 restrictions. Moving teaching online was a challenge and eventually soul destroying as I saw students gradually lose interest in online learning as weeks turned into months. It is thanks to the sheer dedication and hard work of Professor Margaret Gregson and the SUNCETT team that I am in the place I am today as their support over the last four years and particularly during the pandemic kept me motivated and sane. I cannot begin to describe the joy of returning to face to face teaching albeit with many restrictions in place, for both me and my students. I found a renewed passion for teaching and a keenness to continue with my research and find ways to bring back excitement and interest in learning. The research process has changed me as a teacher as I continuously question myself on my approach to teaching, learning and assessment to ensure that what I do in the classroom is in the best interests of my students. I am also brave enough to admit when it is not, and to make changes which I hope will resonate with anyone who reads this thesis.

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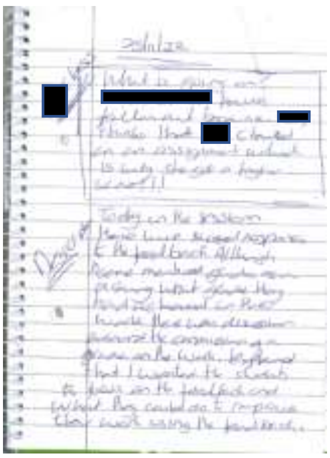
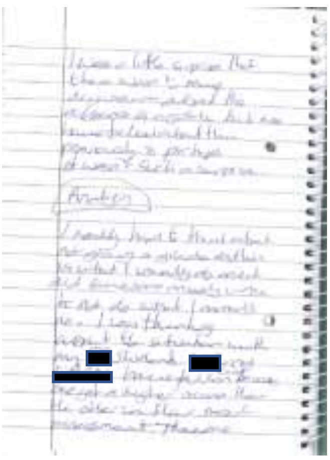
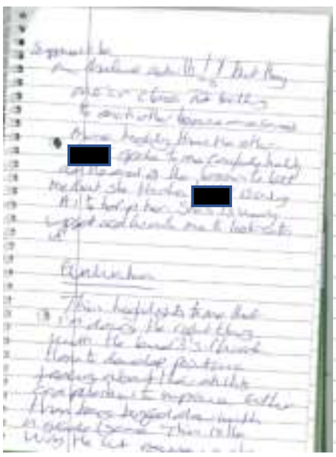
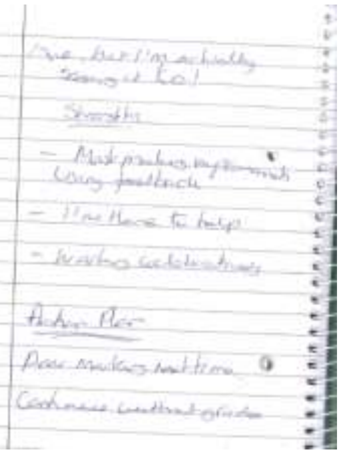
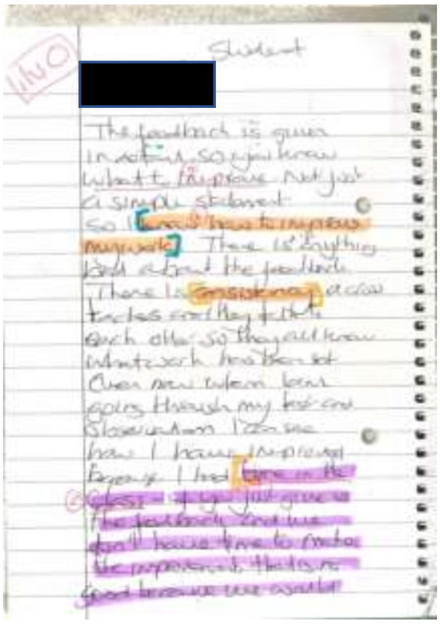
Appendix 1: Extract from Reflective Diary 25th November 2022 taken from transcript – pictures 1, 2, 3 and 4.

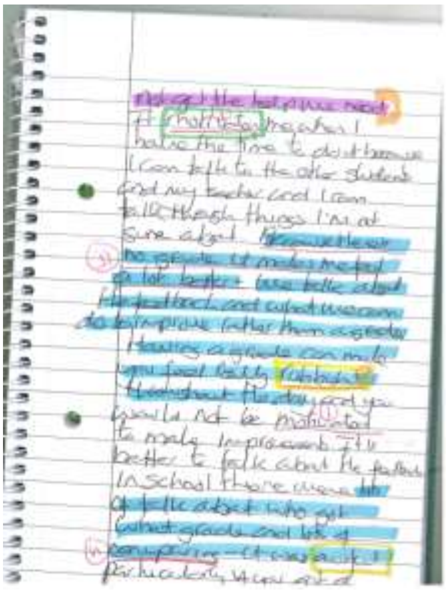
"Today in the session there were mixed responses to the feedback. Although no one mentioned grades as in asking what grade they had achieved on the work, there was discussion around the omission of a grade on the work. I explained that I wanted students to focus on what they could do to improve their work, using the feedback. I was a little surprised that there wasn't more discussion about the absence of a grade, but we have talked about this previously so perhaps it wasn't such as surprise. I really had to think about not giving a grade as this is what I usually do, and it did raise some anxiety in me not to do what I normally do. I was thinking about the situation with my [redacted] and [redacted] have fallen out because one got a higher score than the other in their recent assessment. These are supposed to be mature adults!!! but here they are in my class not talking to each other because one scored more highly than the other. [redacted] spoke to me confidentiality at the end of the lesson to tell me that she thinks that [redacted] is using AI to help her. She is very upset and wants me to look into it! This highlights to me that I am doing the right thing with the level 3's. I want them to develop positive feelings about their ability and potential to improve rather than being bogged down by a grade/score. This is the way the literature review is steering me but I am actually seeing it too."

Pictures 1, 2, 3. And 4

Appendix 2: Coded interview





Appendix 3: Observation record

Session 1

[redacted]
Quite disappointed feels she never gets it entirely right - not keen on making improvements - too much work to do - All feels too much.
More focussed on a different piece of work returned by another tutor. Doesn't know what she needs to do despite detailed feedback. Looks through this together, breaking [illegible]

Session 2

Fantastic [redacted] has a smile on her face. She says she feels more confident
Work shows significant improvement
Summative assessment
B grade

Session 1

[redacted]
Written feedback is detailed with a range of prompts questions examples suggestions for reading
[redacted] does not interact - prefers to work this out for herself. I try different strategies - private 1:1's. Breaking criteria down, encouraging [redacted] to make notes ask questions but she is mostly silent

Session 2
No Improvements Difficult to engage [redacted] in conversation - feels that she cannot do it. lots of strategies put in place to support work not resubmitted

Session 1

[redacted]
Work is a bit muddled and difficult to follow Feedback discusses organisation as well as content
[redacted] comes to discussion with notebook
She has created a table to record what she needs to do
she's having time in class to work on improvements

Session 2

Much more organised - easier for marker to locate work
Improvements made
Summative result A

[redacted] [illegible] time - lots of things going on at home. Planned with formative assessment feedback "Maths at [illegible]" Realises that doesn't have that much to do to improve
Generally happy with feedback. Doesn't feel anything needs further explanation

Appendix 4: Gatekeeper Letter

[redacted]

Dear [redacted]

I am writing to request permission to conduct a Research Project with [redacted] students across [redacted] This project will form part of my investigation into formative assessment practices across XXXXXXXXXXXX

My research project will explore the experiences of teachers and students with formative assessment and how well students engage in feedback to improve performance and raise achievement.

This study will be assessed by student observations carried out by myself in the classroom environment, alongside face to face interviews with both students and staff who are experiencing formative assessment. I will also request permission from students to participate in this study where they are unable to give informed consent themselves. For students under the age of 18 parents/guardians permission will be sought.

I am writing to request your permission to approach students, parents and staff in order to participate in this study, complete the interviews and observations. This should not take a large amount of time and can be conducted at a convenient times and dates as agreed with the participants. All interviews and observations will be conducted on college premises and safeguarding policies will be adhered to throughout.

All answers and results from the interviews and observations by myself will be kept strictly confidential and the results will be reported in a research paper available to all participants on completion.

All participants will be informed of their right to withdraw consent at any time without the need to provide an explanation for doing so.

Please could sign the consent form to confirm that you are willing to allow me to commence my research.

Yours sincerely

Christine Osborne

[redacted]

Appendix 5: Student Letter

[redacted]

Dear student,

I am currently conducting research into the quality of feedback on formative assessment at [redacted] My main focus is looking at how to support students with achieving target grades and how feedback supports students with improving their work between task submissions and on future work. The research will take the format of face-to-face interviews and observations during lessons. I will plan with you a mutually convenient date, time and location for the interview. The purpose of the interview will be to seek your opinion about your experiences of feedback on formative assessment prior to coming to college and during your time at college. In class I will be observing some assignment workshop sessions and making notes focussing on how students use feedback to improve their work.

If you are willing to participate in this research, please sign the permission slip below. The information will only be used for the purpose of my research and no individual student will be named. Your responses are completely anonymous and will be used solely for the purpose of informing my research. Observation notes will not include reference to any student as codes will be used, such as student 1, 2 .....

Please be aware that you can withdraw your consent to participate at any stage without the need to provide any explanation for withdrawing. If you are under the age of 18, please ask your parent/guardian to provide consent.

If you or your parent/carers have any questions that you would like me to answer prior to agreeing to participate, please contact me using the details below.

Yours Sincerely

I give my consent to participating in the research project detailed above
Name:

Signature: Date

Parent/guardian signature for students under the age of 18
Name:

Signature: Date:

Yours sincerely

Christine Osborne

[redacted]

Appendix 6: Teacher Letter

[redacted]

Dear teacher,

I am currently conducting research into the quality of feedback on formative assessment at [redacted] My main focus is looking at how to support students with achieving target grades and how feedback supports students with improving their work between task submissions and on future work. The research will take the format of face-to-face interviews. I will plan with you a mutually convenient date, time and location for the interview. The purpose of the interview will be to seek your opinion about your experiences of feedback on formative assessment and students' willingness to act upon it. I will also be seeking you opinion on the effectiveness of feedback strategies that you use in your classroom. I will be only be making hand written notes of your responses.

If you are willing to participate in this research, please sign the permission slip below. The information you supply will only be used for the purpose of my research and no individual teacher will be named. Your responses are completely anonymous and will be used solely for the purpose of informing my research. When writing up my interview transcripts I will not include reference to any individual teacher as codes will be used, such as teacher 1, 2 .....

Please be aware that you can withdraw your consent to participate at any stage without the need to provide any explanation for withdrawing.

If you have any questions that you would like me to answer prior to agreeing to participate please contact me using the details below.

Thank you

Christine Osborne

[redacted]

I give my consent to participating in the research project detailed above
Name:

Signature:

Date

Appendix 7

Confirmation of Line Manager/Senior Manager Support

I confirm that as the Line/Senior Manager of the applicant(s) named in this application, I endorse their application and support their research proposal.

Signed: [redacted]