Building Academic Tenacity by Promoting Growth Mindsets in English.

A subject leader’s investigation into the impact of a structured approach to feedback based on ‘making mistakes’ in preparation for the Year 11 GCSE English Language Unit 2 examination.

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Declaration

This work is being submitted in partial fulfilment of the requirements for the degree Masters of Education Leadership and Management and has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

Signed: L Worrall (Candidate)
September 2016

This dissertation is the result of my own work and investigations, except where otherwise stated. Where correction services have been used, the extent and nature of the correction is clearly indicated. Other sources are acknowledged by footnotes giving explicit references. A Reference Page is appended.

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Abstract: Resilience may be defined as the ability to overcome obstacles and recover from setbacks. Resilient learners are able to persevere with problems and overcome not knowing through hard work and effort. They accept that their ability is not fixed but something that can be developed and enhanced through greater effort and as such have what may be called a growth mindset with regard to their learning (Elliot & Dweck, 1988; Dweck, Walton & Cohen, 2014). The following study is designed to investigate the impact that a growth mindset strategy, relating to the use of mistakes in classroom feedback sessions, has on pupil attainment and confidence levels in the preparation for an externally assessed GCSE English Language examination. Furthermore, it explores the value that teachers of English place on the strategy and assesses the impact they feel it has on teaching and learning in a secondary school context in South Wales.

This action research supports the notion that academic behavior can be changed through intervention as suggested by psychology (Deci & Ryan, 1985; Skinner, 1953 & Staats, 1963) however accepts that this is a challenging task given our tendency to for learned helplessness (Seligman & Maier, 1967; Steele, 1997 & Steele & Aronson, 1995). It acknowledges the influential and far reaching findings of Dweck et al (1988, 2014) and uses these as the foundations for this project.

A mixed methods approach provides both quantitative and qualitative data. Impact on attainment is not statistically significant however positive impact on the attainment of a pupil with Additional Learning Needs (ALN) is noted. The study shows a clear link between the use of strategies which support a growth mindset and an improvement in confidence and attitudes to subject. It also acknowledges the influential role teachers play on outcomes. This dissertation recommends future action research with younger pupils to test the theories established and address the limitations covered. In addition, it suggests that a culture of teaching and learning which fosters a growth mindset be encouraged by senior leaders through a robust program of professional development and support for staff. Finally, it proposes that a small scale study be conducted with pupils with ALN in order to test the impact which this strategy has on pupil attainment for these groups of learners.
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Acronyms

AfL: Assessment for Learning
ALN: Additional Learning Needs
BLP: Building Learning Power
eFSM: eligible for Free School Meals
GPA: Grade Point Average
MAT: More Able and Talented pupils
PQ: Pupil Questionnaire
PFG: Pupil Focus Group
SPaG: Spelling, Punctuation and Grammar
SQ: Staff Questionnaire
SFG: Staff Focus Group
Chapter 1

Introduction

Learners need to become more resilient if they are to face the ever increasing challenges of the dynamic world in which they find themselves. Whatever their ultimate aspiration in life, acknowledging failure and learning to adapt to setback will be crucial to their success. An aversion to this will ultimately lead to an inability to rise in the competitive world which lies ahead of them. As teachers, our ultimate goal is to prepare our pupils for the future ahead, regardless of subject content. The more positive the mindset therefore, the higher the likelihood to persevere and ultimately succeed.

Through the use of a structured approach to feedback in English Language non-fiction tasks this study aimed to raise pupil attainment, improve pupil confidence and assessed the value staff place on the approach as a teaching and learning tool in English lessons. In particular, this research used a technique called ‘My Favourite No’ suggested as part of the Mindset Kit Programme created by the Project for Education Research that Scales (PERTS) at Stanford University (PERTS, 2015). Professor Boaler’s approach to brain growth through risk taking, the celebration of mistakes and the use of tasks which encourage mistakes (PERTS, 2015) served as the starting point for this project. This study did not directly look at growth mindsets per se. It instead aimed to foster the principles set out by the growth mindset agenda which suggest that pupils who are more resilient to failure are more likely to achieve both now and later in life (Blackwell, Trzeniewski & Dweck, 2007; Elliot & Dweck, 1988; Dweck et al, 2014; Fuller, 1999; Headden & McKay, 2014) and test these through the trial of a specific feedback strategy. The study took place over a half term in the 2015-2016 academic year with a Year 11 cohort in a South Wales secondary school.
This action research aimed to test the findings of Dweck, C., Walton, G. and Cohen, C. (2014) in their work on academic tenacity. Their work attributes three categories key to fostering resilience in terms of pupils’ learning in the classroom: challenge, scaffolding and belonging. This research focused on the second of these as it examined the use of what Dweck et al (2014, p.26) term ‘cognitive scaffolding’ in relation to feedback mechanisms in the classroom. It also builds on the success suggested by the blended learning curriculum entitled ‘Brainology’ which merges growth mindset theory and lesson planning and purports that a growth mindset ‘leads to greater student challenge-seeking, effort, persistence and achievement’ (Mindset Works Inc, 2012). Indeed, the programme’s research is supported by scientific data linked to the malleability of the brain (Ramsden, Richardson, Josse, Thomas, Ellis, Shakeshurt, Seguier, & Price, 2011) adding statistical weight to its use in this trial.

The pupils involved in the study were preparing for their GCSE English Language Unit 2 examination. This tests the ability to read, synthesise and compare a range of non-fiction texts on a similar theme or topic through three comprehension style questions. Furthermore, it requires a piece of transactional non-fiction writing with a clear purpose, audience and layout. The examination is worth 20% of the overall GCSE English Language grade, with 50% of the available marks being awarded for accuracy in spelling, punctuation and clarity on the writing tasks. Prior attainment on this paper was lower than expected of pupils in the year group (with 42% achieving A*-C when targeted 80% A*-C) and despite a rigorous teaching and learning programme, improvement over time was lacking. From September to October 2015 an intensive Mini Mock Programme (APPENDIX 1) had been conducted in order to monitor pupil attainment closely and regularly and to ascertain areas of weakness in relation to examination technique. Despite regular testing, revision and exemplar material being put in place, pupils did not improve and in some cases marks declined. Pupil engagement and resilience to tasks was limited as shown by their attainment, attitude in lesson and through pupil and staff voice
in the school. As such I felt it would be a suitable year group with which to trial a strategy associated with, not only building a growth mindset, but, moreover one which fostered resilience in the face of hardship and past failure.

The purpose of this research was threefold: firstly, to examine the impact this strategy had on pupils’ cognitive learning as indicated by their attainment. Secondly, to evaluate non-cognitive approaches to learning via pupils’ resilience in terms of their motivation to improve. Thirdly, to establish whether teachers felt the strategy beneficial and worthy in terms of good practice in the classroom.

The aims of this study may be summarised through three research questions as follows:

1. How far will the implementation of an approach to feedback based on ‘making mistakes’ raise attainment in the GCSE English Language Unit 2 exam? (RQ1)
2. How much impact do pupils feel that using an approach to feedback based on ‘making mistakes’ has helped to build confidence in their approach to GCSE English Language Unit 2 exam? (RQ2)
3. What value do teachers place on the use of an approach to feedback based on ‘making mistakes’ in preparing pupils for the GCSE English Language Unit 2 exam? (RQ3)
RATIONALE

Pedagogy which asserts that an individual’s success is grounded in their approach to learning is already well founded. Research (Dweck et al, 2014; Paunesku, Goldman & Dweck, 2011; Romero, Paunesku & Dweck, 2010) tells us that pupils’ ability to reflect, respond and adapt leads to more successful learners. Claxton’s model for ‘Building Learning Power’ (BLP), for example, places the power of the mind as a learning tool at its core through the Four Rs for Learning Power (Claxton, 2002). The Learning to Learn agenda and, indeed, the importance placed on Assessment for Learning in schools in helping ‘learners to develop a repertoire of thinking strategies to be drawn on when they encounter new situations’ (Welsh Assembly Government, 2010, p.18) has metacognition at the heart of its ethos. The value of how learners learn and what influences that learning is well documented in the findings of Watkins’ examination of 100 research studies (Watkins, 2001). The importance of conceptions of learning and how these influence pupils and teachers is thoughtfully examined in the light of the twenty first century classroom by Carnell and Lodge’s 2006 research. In essence, ‘Young people want and need to learn how to learn’ (Caxton, 2002, p. 49). Current curricula have the learner at their core and assert that a learner’s success is in direct proportion to how they approach their learning and not governed by their perceived intellectual capabilities. Continued educational reform, from behaviour management to Assessment for Learning (AfL) strategies, certainly suggest academic behaviour is malleable and can be influenced by changes in the classroom context; that pupils and staff can be “motivated, cajoled or taught to act differently” (Farrington, Roderick, Allensworth, Nagaoka, Keyes, Johnson & Beechum, 2012, p.14). Research tells us then that progress is quantifiable and that the ability to succeed is neither fixed nor predetermined (whether by background, class, ethnicity or gender); it is something much more malleable and changeable and that the individual and their mentality are key. Dweck’s 2011 review of research on academic mindsets suggests that ‘educational
interventions and initiatives that target these psychological factors can have transformative effects of students’ experience and achievement in school’ (cited Rustin, 2016, p.1). It is this focus on the psychological nature of learning, and how we, as teachers, develop it, that has inspired this research. This research aimed to test these theories in a small scale study over a relatively short time frame. It did not try to develop a growth mindset explicitly with staff or pupils but sought to foster this mentality through the use of motivational feedback strategies within the English classroom.

**Justification: Context**

In order to understand the need for this study it is worth outlining the background leading to its implementation. As Banyard (2009) suggests it’s “vital to consider the learner’s experience in context” (Barnyard, 2009, p.5).

A drop of 13% in English Language Summer 2015 examination results at the school (entitled School A from this point on) triggered a county, school and department level investigation into pupils’ performance in English. This is extraordinary in that the English Department historically had seen a year on year rise in results which had tipped at 85% A*-C in 2013 putting the Department at the top of their family of schools (those deemed as comparative in terms of cohort in terms of economic background and those deemed eFSM). It is also worth noting that, on a national and local level, schools had not underperformed to the extent that the Department had in this round of assessment; therefore, indicating a significant issue at a ‘grass roots level’.

Analysis of the Department’s results highlighted clear underperformance with regard to tasks on the non-fiction Unit 2 examination paper. Item Level analysis showed that pupils of all abilities had underperformed in relation to teacher expectations on both reading and writing questions. Pupils who were resitting papers from their January examination did not, on the
whole, improve their grades and pupils who had a proven record of high attainment had achieved low scores (below teacher target and expected C grades) on the majority of questions. The impact was, however, most evident with pupils who were predicted a C grade and who achieved a D grade and lower. Their performance on this paper had wider consequences on their ability to achieve a C grade overall for English hence impacting on the Department and school’s results. As Subject Leader for the Department, I was tasked to explain why such a dip in performance had occurred. Why had pupils who we expected to do well and who had demonstrated their potential to do well in classroom based assessment, not done so in the formal context of their external examinations? Why had pupils across all ability groups underachieved? What (specifically) had caused pupils to underperform to such an extent?

A thorough investigation was launched. Papers were recalled for review; pupils interviewed; past performance revisited. While the examination paper was challenging and the marking appeared to be rigorous in that marks for Spelling, Punctuation and Grammar (SPaG) accounted for 50% of the mark, this did not account for the level of underperformance seen. Neither did recent changes in examination procedures where examiners were tasked with marking questions as opposed to complete papers. In fact, one would expect that would this be the cause in a low conversion rate in relation to target grade that not all questions would be affected as was the case here. The recalled papers were the richest source of information in our quest for answers. It clearly indicated that pupils had not been able to apply the skills taught in the classroom to the context of the exam. While this is not unique when looking into examination results, what was surprising was the large number of pupils this applied to. It indicated a clear lack of consistency and resilience in terms of approaching unseen texts in the examination on a large scale and as such a need to foster this more consciously within the classroom context.
Mini Mock Programme (Appendix 1)

In response to the above findings, a fortnightly mock exam was introduced to all Year 11 English classes. Year 11 classes attempted a past paper question in exam conditions in their English lessons in the same teaching week. Classes peer and self-assessed work and teachers checked and amended this where necessary. Pupils who had not achieved their teacher target grade were then required to resit the question in the same conditions in support sessions undertaken by all Year 11 pupils in the school. The impact of this agenda was encouraging and worthwhile in terms of the quantitative data it produced. However, it revealed a further need to foster a positive growth mindset in relation to failed approaches to these tasks.

Feedback from staff also revealed that some pupils felt ‘fatigued’ and ‘disheartened’ by the process when they saw no improvement in their marks. The use of marks and grades on their work, while beneficial in terms of tracking progress, had led to increased anxiety and stress when pupils felt they could not achieve that illusive extra mark that would get them onto their target grade. Despite staff continuing to use formative comments alongside marks in feedback, pupils were feeling the pressure of a numerical quantity being applied to their work. This was highlighted most effectively by a teacher who stated that her pupil felt ‘unable to get that 7 marks’ frustrated that they ‘always seem to get 6’. 7 marks were notionally awarded a B grade and 6 marks a C grade. For a pupil to be achieving such high marks at all at that stage in the year was admirable but it was alarming to hear of such anxiety being caused by the difference in 1 mark. Indeed, it indicated a genuine need to focus on strategies which fostered pupil well-being.
Justification: Curriculum change 2017

Changes to the Key Stage 4 Curriculum in Wales also provided sound support for wanting to improve pupils’ motivational skills in relation to challenging experiences. The revised Welsh Baccalaureate whose ‘emphasis is on applied and purposeful learning’ (WJEC, 2015) will require pupils to be much more self-reliant and resilient in terms of motivation if they have any hope of fulfilling its complex requirements. The focus on literacy, numeracy and ICT skills as well as skills relating to independent research, will inevitably require higher levels of academic tenacity if standards are not going to fall (across all subject areas). With regard to the new English Language curriculum this is even more relevant. The linear nature of the new specifications to be examined in 2017 will require a greater level of resilience in terms of examination technique and approach than has been seen for many years. Legacy specifications have allowed for accumulated assessment through teacher assessed work (Controlled Assessment) which no longer exist in written form. The demands of the new linear assessment will require greater levels of motivation and resilience if pupils are to see it through to the end. The structure of the Welsh Baccalaureate will also require effective responses to failure and underachievement given the impact that every aspect of the course has on a pupil’s ability to achieve the Award. Indeed, ‘As the academic requirements rise, so too must students to take on increasingly difficult tasks and to persist through the failures that often precede success.’ (Headden & McKay, 2014, p.3)
The intervention:

The strategy being trialled in this study entitled ‘My Favourite No’ is suggested as part of the Mindset Kit Programme created by the Project for Education Research the Scales (PERTS), a research centre at the Psychology Department at Stanford University which promotes the use of growth mindsets in schools. This programme purports to contain ‘all the best resources and practices related to learning mindsets’ (PERTS, 2015) and the researchers responsible for piloting the use of mindsets in schools are based in Stanford University. Their results feed directly into the Mindset Kit Programme, ensuring it is up to date and accurate, thereby, enhancing its validity and academic credentials for use in this research.

Put simply, the strategy used here required teachers to use pupils’ work which contained mistakes for use as exemplar material in the classroom, rather than exemplify work with no errors. At the start of a lesson, or as part of a feedback session within, the teacher demonstrated why this example of work is his/her favourite as it showed a number of common mistakes. Pupils were then asked to explain what the mistakes were and ‘unpick’ them. The success of the strategy is suggested by its ability to ‘normalise’ failings and reassure pupils as they identify with the mistakes seen. Its aim is to foster a greater understanding of skills by discussing errors made as a class thereby revisiting key areas of learning which a class/group are evidently struggling with. It employs only a positive approach to feedback tasks using a pupil response which, although incorrect or able to attain full marks, exemplifies many successes in terms of approach and technique. The strategy utilises real examples in real time as it takes place immediately after a piece of work has been completed. The approach is transparent in that work contains names and individuals are invited and encouraged to share work which contains mistakes. The work used is initially at the teacher’s discretion but the hope is that with time pupils feel increasingly confident to volunteer their own mistakes rather than be shamed by them. People have a tendency to avoid tasks they don’t have confidence in and engage with
those they do (Bandura, 1986) and the hope is that a recap in the processes applied to a task will ultimately lead to a realisation of what went wrong and when and the ultimate aim is to instil pupils with the confidence and skills to try again.

Only once all positives are unpacked, then the teacher would ask what this person would still need to do to succeed. The theory is that the discussion that occurs prior to this question will enable whole class understanding and responses to it and empower pupils to feel more confident about approaching a similar task in the future; thereby increasing their resilience as learners.

**Action Research**

In order to test the impact of a teaching and learning tool, I decided that action research would be most suitable for this project. The intervention took place over one half term in Year 11 English lessons. The Year 11 cohort consisted of 245 pupils. While all 242 pupils in the year group were taught using the strategies of being researched in this study, this research only looks in depth at the impact the intervention had on one class (Class A) in particular. I have consulted with ethical guidelines as outline by BERA (2011) and as such am confident that this study is ethically sound as all pupils in School A had access and exposure to the benefits it was hoped this intervention would yield. I felt this was particularly important when trialling techniques relating to examination technique and pupil well-being.

Examination results provide a quantitative measure of success. Internally assessed mock results conducted prior to the intervention provide a control in terms of assessing the impact of this strategy within the short time scale given. Staff questionnaires and pupil questionnaires conducted pre-intervention and staff and pupil focus groups conducted post-intervention provide data of a qualitative nature. This ensures both research methods and data analysis are robust in nature.
Chapter 2:  

Literature Review

This review outlines the most significant research findings on the impact that growth mindset interventions can have on both pupil attainment and their approach to learning. It looks at evidence supporting a link between mindset and attainment, which interventions have been trialled, how they have been delivered and the impact these have had. As a Subject Leader, I have been interested to see how interventions have worked on a micro (classroom) and a macro scale (departmental and institutional). As such this review has taken into account research where interventions have been used as a learning tool and a pedagogical approach. As my action research focuses on how pupils respond to mistakes, and how their future learning and attainment may be improved through a more resilient approach to this, I have also looked at studies where this has played a role through an examination of research from within a range of educational contexts. Given the limited studies which exist surrounding the use of growth mindset theory in English teaching specifically, I have acknowledged the findings that I feel most applicable to this study. I am highly aware of the dominance that Dweck’s research has in this field and as such acknowledge that her work is thus cited often. Where possible I have aimed to include key findings from other research; both supportive and critical in nature. In addition I have taken into account the limitations highlighted by critics of theories relating to ‘theories of intelligence’ and social cognitive learning and the use of interventions based on these in the classroom. The breadth of literature in this field is wide ranging and, as such, I acknowledge that I have had to be selective and synthesise the studies most relevant to this research and the context within which I am working.
Key concepts and support for Growth Mindset interventions: Dweck’s influence

Much research in this area stems from and builds upon Dweck’s influential and groundbreaking research across three decades ((Dweck, 1975; Elliot & Dweck, 1988; Dweck & Moulden, 2013; Dweck, Walton & Cohen, 2014). This emphasises that reaching your potential isn’t solely attributable to natural talent or ability but “whether you look at ability as something inherent that needs to be demonstrated or as something that can be developed.” (Kracovksy, 2007, p. 4.). Dweck’s research looks at this from an educational point of view and seeks to tackle a lack of progress regardless of ability through a focus on what individuals attribute their success or failure to, what psychologists term ‘Attribution theory’ (Dweck, 2015a). Her research has proven that effort and not ability can have a direct impact on attainment and outcome (Dweck, 1975) and classifies people with this approach as having a growth mindset. In recent reviews of her research findings she goes further and asserts that pupils who display this mindset “put in the effort and strategies needed to acquire knowledge, and they stick to difficult tasks, learning from their mistakes and setbacks. They have more grit.” (Dweck, 2014, p10). Diener’s view is that: “Failure is information—we label it failure, but it’s more like, ‘This didn’t work, I’m a problem solver, and I’ll try something else” (cited in Kracovsky, 2007). In the context of my research, Dweck’s work is encouraging in that it recognises the lack of effort that can lead to a lack of progress inherent in schools and asserts the need to foster curricular and pedagogy that develop learners who not only believe they can succeed, even in the face of failure, but are willing to put the effort in to try. Fuller (2001) goes further and suggests protecting pupils from failure actually “reduce[s] their chances of becoming resilient learners” (Fuller, 2001, p.10) as they become unable to cope with overcome setbacks. Indeed this willingness to have an open mind and approach to learning is at the heart of what growth mindset implies and the willingness to do so in the face of challenge is at the heart of what I want to foster through this action research.
Building academic tenacity and the case for making mistakes

This grit or resilience in the face of failure, neatly termed ‘The effort effect’ (Karckovsky, 2007) is nothing new to teachers, indeed we tackle this on a daily, if not hourly, basis. Our job as teachers is to motivate and inspire pupils; indeed this is arguably influential in a person’s choice to become a teacher in the first place. Although often weighed down by workload and bureaucracy it can be argued that a teacher’s innate ability and desire to do this in the classroom remains. As Subject Leader for a core curriculum subject I am acutely aware of the pressures teachers face in finding a balance between delivering innovative pedagogy, meeting deadlines and implementing new curriculum changes. What is also clear from teacher feedback in my context is the challenge teachers face when encountering a pupil’s inability to remain motivated and inspired in the face of failure. Claims of ‘I can’t do that’ or ‘I am not good at it’ are commonplace especially when pupils find work challenging and even more so when they do not see an improvement over time; as is the case in the context in which I work. When people believe they cannot succeed, they are less likely to put the effort in (Oysterman & James, 2009) and this leads to a lack of resilience in the face of failure. Equipping pupils with the tools to become more resilient learners is key and as such we need to teach them “what to do when you don’t know what to do” (Claxton, 1997, p.20).

What this research examines therefore is the influence of academic mindset, defined as “the psycho-social attitudes or beliefs one has about oneself in relation to academic work” (Farrington et al, 2012, p.7), on pupil attainment as well as their ability to be resilient in the face of challenge. A growth mindset approach to this would therefore suggest that the more positive a mindset, the higher the likelihood to persevere; and ultimately succeed or achieve. Is academic behaviour malleable then? The ethos at the heart of psychology based research certainly seems to suggest so (Deci & Ryan, 1985; Skinner, 1953; Staats, 1963). Farrington et all (2012) highlight the cyclical nature inherent in mindset based interventions suggesting
that the relationship between mindset and performance is ultimately reciprocal. Figure 1 illustrates this clearly:

**The reciprocal nature of academic mindsets adapted from Farrington et al. (2012)**

![Diagram of the reciprocal nature of academic mindsets]

*Figure 1: Illustration of the reciprocal nature inherent in academic mindsets*

Findings relating to academic mindset are echoed in research surrounding the development of resilient learners and the need to foster tenacity within schools. There is strong evidence that suggests that mindset is also linked to character development and well-being and that growth mindset interventions support positive character traits. Goal theory (Dweck & Leggett, 1988), social learning theory (Bandura, 1977, Rotter, 1954), attribution theory (Weiner, 1979) and concepts surrounding self-efficacy and worth (Bandura, 1986) evidence support for the use of psychology based interventions aimed at improving well-being. The Education Endowment Foundation (EFF) trial 2013 in changing mindsets acknowledged that “trying to instil self-belief into a pupil who has little or none can be one the most challenging and frustrating aspects of the classroom teacher” (TES, 2015b, p1) and the Think tank Demos (TES, 2015a) placed the importance of developing these attributes on a par with academic abilities. It conducted
two interventions simultaneously, one directly with pupils who were taught 6 workshops on brain malleability and one directly with staff on how to use approaches that developed and reinforced a growth mindset. In fact, they found that instruction of pupils had more effect than the professional training of staff. I have decided to use a combination of these for maximum impact. Research also asserts that people with a growth mindset tend to be more resilient in the face of challenge compared to those with a fixed mindset (Yeager & Dweck, 2012). “Resilient learners persist where others give up. Persistence in the face of adversity requires a feeling of safety about not having achieved an answer yet. For this reason it is important that we emphasise that performance and learning can always be expanded and improved upon” (Fuller, 2001, p.3).

Teachers are directly responsible for creating a culture which enhances academic perseverance; where students are willing to fail and in spite of setback which will ultimately influence their ability to progress in the future. Indeed, pupils should be encouraged to take risks in order to move forward (Bromley, 2014). Sir Ken Robinson echoes this through his observation that children start out willing to take risks but lose this trait because schools have made them see mistakes as negative trait (Bromley, 2014). It has been suggested that the problem goes deeper than that, and that the inability to make a mistake can be ‘the greatest inhibitor to learning’ (Fuller, 1999, p. 28). The influential role which environment and context play on the pupil cannot be underestimated therefore. There is a direct link between the classroom context, academic mindset and academic perseverance (Farrington et al, 2012). They suggest that “by building students’ repertoire of learning strategies, classroom teachers can indirectly increase students’ perseverance because they see the payoff from their efforts” (Farrington et al, 2012, p.14). They cite the research of Bernbenutty & Karabenick (1998) which found that when offering pupils a choice between tasks which would provide immediate gratification and guaranteed success in one lesson or those which would improve long term success pupils were
more likely to choose the latter because they saw they benefits inherent in that choice (cited Farrington et al, 2012, p16). This “academic delay of gratification” certainly suggests a strong correlation between learning strategies in the classroom and perseverance from the pupil.

The Department for Education acknowledges the need to address this further, stating that ‘Investing in the character of young people will not only help them succeed academically, but also improve their job prospects and help them bounce back after set backs’ (TES, 2015a). Indeed, in 2015 alone, the English government invested £3.5m into projects which promote what they call a ‘character education’ through Character Grant schemes in schools in England. This style of approach is defined by Scott as schooling which does not merely focus on academic ability but looks to develop resilience and communication’ (TES, 2015c, p.1) and highlights the value that England places on approaches that foster such qualities. Unfortunately, this level of investment is currently lacking in Wales at present but that may have much to do with the limited range of research existing in a Welsh context.

There is substantive evidence that strongly purports that mindset is highly linked to academic performance (Aronson, Fried & Good, 2002; Blackwell, Trzeniewski & Dweck, 2007; Elliot & Dweck, 1988; Paunesku, Walton, Romero, Yeager; Dweck & Smith, 2015). Indeed, it is one of the founding principles of growth mindset theory based interventions. Dweck echoes this assertion: ‘The growth mindset was intended to help close achievement gaps, not hide them. It is about telling the truth about a student’s current achievement and then, together, doing something about it, helping him or her become smarter ‘(2015b, p.1). When applying the theory relating to growth mindsets to achievement in an educational context, the evidence is therefore compelling. Blackwell et al’s 2007 longitudinal study, for example, looked at 373 students over two years between the ages of 12-13 and 13-14 and found that, on average, the
grades of those with growth mindsets increased while those with fixed mindsets declined. The attainment gap between them also increased. A 2010 study into the use of growth mindset as an academic predictor showed that in core subjects such as English and maths, the mindset of school aged pupils predicted their attainment (Hill, Corbett & St Rose, 2010). A 2003 study of college students undertaking pre-med organic Chemistry showed that those with a growth mindset or orientation achieved higher marks than those with a fixed approach to their ability. Moreover, those with poor results were also more likely to ‘bounce back’ or recover their performance with a growth mindset approach (Grant & Dweck, 2003). There is also encouraging evidence that the use of growth mindset intervention reduces the gender gap in terms of attainment (Good, Aronson, & Inzlicht, 2003). There is also substantial evidence across all core subjects (English, maths and Science) which suggests that learning strategies can be effective (Graham & Harris, 1994; Pressley & Woloshyn (Eds.), 1995, Wood, Woloshyn & Willoughby (Eds.), 1995).

Interestingly, research from a study using growth mindsets in Chilean schools provides further compelling evidence for its use in schools at an institutional level (Yeager & Dweck, 2012). Their study, which included a final sample of 168,000 students, showed that in almost all schools (more than 2000) that the poorest students who had growth mindsets were performing at the level of their counterparts in the 80th percentile of wealth who were deemed to have a fixed mindset. In recent interviews regarding the success of Dweck’s body of work she asserted that [in] “Any given area, our research has shown that people’s mindsets play a significant role in their achievement” (Dweck, 2014, p10). Most recently, weighty findings which test the use of mindset intervention on an institutional level as a means of raising attainment have proven that brief and purposeful online interventions with 1,594 students in 13 geographically diverse high schools has raised attainment in core subject courses by 6.4 percentage points (Paunesku, Walton, Romero, Yeager, Dweck, & Smith, 2015). The literature shows that a
growth mindset has a direct impact on a pupil’s ability to motivate themselves and thus progress in the face of challenge or failure. (Dweck, 2014). What it also highlights is a need to teach pupils a how to develop a growth mindset in the first place. Indeed in recent reviews of her research Dweck has again affirmed that “praising for “process” (challenge-seeking, hard work, good strategies, focus, and persistence) instead of ability or intelligence creates a growth mindset and enhanced achievement in students.” (Dweck, 2014, p11). This is encouraging when considering the aims of this dissertation (RQ1).

The weight that findings in this field hold is probably best illustrated by the U.S. Department of Education’s adoption of growth mindset based pedagogy across state schooling. Its investment in the development of Mindset Works SchoolKit as a curriculum tool, symbolises the worth it places on its aim to ‘foster a school environment that supports students in maintaining positive motivation, effort and resilience’ (MindSet Works. Inc, 2012). This philosophy rings true for schools in Wales in the establishment of a new curriculum for 2017 and Donaldson’s report which emphasises the need for us, as teachers, to support pupils and ‘help each one of them to grow as a capable, healthy, well-rounded individual who can thrive in the face of unknown future challenges” (Donaldson, 2015, p 7). There is, therefore, a solid case for the use of such pedagogical trials in schools in the UK.

**Classroom based interventions**

The findings outlined above are encouraging in the context of this action research as they suggest success as a result of small scale studies within the classroom. Even short interventions such as online courses or mindset based classes can affect academic outcomes (Dweck & Moulden, 2013). The Mindset Kit programme, supports this in that its website provides small focused interventions for both teachers and parents to use to develop growth mindsets in young people. The ‘Favourite No’ strategy which I am trialling in this study is
such an example (Mindset Kit Inc, 2012). The Brainology and Mindset Works Schoolkit website claims that its ‘award winning blended learning curriculum’ has achieved successful results in both US and UK schools (Mindset Kit Inc, 2012). In a randomised trial of Latino students at US middle school students who were taught using the Brainology programme earned statistically higher Grade Point Averages (GPA) than those in the control group. (Romero, Paunesku, & Dweck, 2010). Usefully, their research into the use of growth mindset programmes in middle schools in the UK found that students who used Brainology ‘earned higher scores on a standardised reading assessment relative to students in a control conditions ’(Paunesku, Goldman, & Dweck, 2011). This study provides useful evidence directly linked to the use of a mindset intervention in relation to reading assessments which my research hopes to build on. This has even wider applications when we also consider the impact which National Reading Tests and PISA testing, both national priorities at present, have on education as a whole. Both of which require a high level of resilience and adaptability in relation to reading skills and influence pupil attainment, progress and most importantly literacy levels. If an academic mindset intervention could be seen to improve these to any degree then this is hugely encouraging for all teachers, not just teachers of English.

**The case for meta-cognition**

What is also apparent is the influence of meta-cognitive strategies on pupils’ learning, confidence and ultimately academic mindset. Teaching these approaches within the context of the subject area is also much more effective than doing so in isolation (Sun, 2016). Theories surrounding the use of metacognitive approaches in the classroom certainly support this ethos further. The acceptance and (arguably) influence of Building Learning Power (Claxton, 2012), And ‘Multiple Intelligence Theories’ (Gardner, 1993) as teaching and learning tools are testament to the role which metacognition plays in education policy at present. In fact the
revised specification for English Language teaching currently has this at its core and suggests that pupils must have the ability to reflect on the processes used to achieve an answer in order to be able to successfully access the varied and challenging reading material they will be given in the new English Language Examination from 2017 (WJEC, 2015). As Subject Leader for English, this is of significant interest to me and has ultimately influenced my choice of topic and intervention for this research project. Research (Haller, Child & Walbery, 1998) supports the assertion that reading comprehension can be taught meta-cognitively through a range of approaches and asserts the need for pupils to be aware of what and when they are not understanding and be equipped with strategies with which to tackle this (Farringdon et al, 2012). It is imperative that pupils are able to transfer skills taught from one environment to the next and metacognitive learning styles certainly encourage this. Indeed, research suggests that pupils will be more able to apply these skills when taught in a specific context (Bransford, Brown & Cocing, 2000). This is encouraging when the goal, as teachers, is to equip pupils with tools necessary to transfer skills learnt in the English classroom to the English examination hall. It is equally encouraging in the context of this research project.

Research surrounding feedback and its relation to improved academic mindset is also worth considering in the context of this study. In studies where pupils have received “wise feedback” which contained a high level of criticism alongside a high level of assurance that the standards could be achieved, task motivation was high (Cohen, Steele & Ross, 1999). There does, therefore, appear to be a correlation between the use of this approach and the malleability of ability as outlined by the growth mindset agenda (Dweck & Elliot, 1988; Stipek et al, 2001). There is also evidence that this approach to feedback encourages pupils to resubmit work in order to improve (Yeager, Purdie-Vaughns, Garcia, Apfel, Brzustoski, Master & Choen, 2012). This research also suggests the role of the teacher in facilitating the process by creating an
environment where pupils feel safe to share their failings is essential in order to foster a willingness or desire to exert more effort (Yeager & Dweck, 2012). Sun further suggests that “critical feedback in both studies was specific and extensive” (Sun, 2016, p44) and therefore enabled more confidence and trust to be established. This certainly supports the notion that a feedback strategy which encourages pupils to make mistakes and try again is worth investigating further as indicated by the aims of this research project (RQ1, RQ2, RQ3).

Literature has shown, therefore, that people can not only learn but be taught to adopt a growth mindset and make progress in performance terms as a result. Not only academically but psychologically, in that their outlook on learning is positively affected by this approach. This is encouraging as it supports the use of academic mindset interventions with pupils who are not making enough progress towards their target grades at GCSE level and suggests an intervention, such as the one I have chosen to trial, can have far reaching effects in other areas both within the school environment but also the context of the wider world. It suggests that the skills learnt are transferable and for educators this is invaluable.

Acknowledging the limitations

Given Dweck’s influence in the field it is not surprising that the majority of research surrounding growth mindset has been conducted in America. While lacking, support for its use in UK educational contexts is growing and large scale studies are exist. The EFF trial in Portsmouth Primary schools delivering workshops across six schools and 286 pupils and the UK Resilience Programme (UKRP) conducted across 6 secondary schools and 750 pupils in Hertfordshire in 2007-8 are two such examples. There is, however, little in the way of small
scale classroom based research, and even less so in a Welsh secondary school context such as mine.

Momentum for the use of academic mindset related strategies based in resilience has also found growing support in countries such as Australia where curricula are still left to the discretion of local government and even schools. Fuller’s resilience programme for schools ‘The Heart Matters’ (Kidsnatter.edu.a., 2016) and ‘The Pathways to Resilience Trust’ are testament to this. While Dweck’s monopoly in this field may appear to be a limitation in relation to my research it does support my study given the need to conduct more action research based within schools in the UK and in my case, Wales. It also highlights a need for more studies to be conducted that look at the impact that growth mindset can have on attainment in relation to British examinations and national tests.

**Possible Pitfalls**

Criticism of growth mindset theory is based around the concept of ability. Surely some people are just smarter at some things than others? Surely some of us have more talent in certain areas. Dweck acknowledges this, however, she maintains that “The fallacy comes when people generalize it to the belief that effort on any task, even very hard ones, implies low ability,” (Krakovsky, 2007, p3). She goes further to suggest, as was the case in using growth mindsets to support Blackburn Rover’s football team, that we start young (cited in Krakovsky, 2007). This study highlighted not only obstacles in terms of players not believing they needed to put more effort in, as their ability (and score sheet) spoke for itself, but also challenges relating to fixed character traits. These workshops focused on young recruits who were deemed more malleable and would therefore suggest a higher possibility of success (Krakovsky, 2007). This is indeed a challenge I have encountered when launching the growth mindset agenda with Year 11 pupils. They are in their final year of compulsory education and many have not only
displayed clear evidence of ‘learned helplessness’ (Steele & Aronson, 1995) but also ‘learned approaches’ which have been tough to unpick or ‘unlearn’. These have also been influenced by a range of teachers over their school career and a range of subjects. I would argue that it is never too late to learn something new and indeed reshape our way of thinking, especially, I have argued with my pupils, when what you are currently doing does not appear to be working as evidenced by your results. There is scientific evidence has also found that the brain will create new pathways when learning something new and that old ones which are less used will die or fade. Indeed, pathways can not only be created but solidified and this is true of any age (Blackwell et al, 2007; Fuller, 1999; Good et al, 2003; Ramsden et al, 2011). This rings true for pupils and teachers as well as researchers alike. Dweck herself admits that both she and her colleagues are on a learning journey too and need to revisit their thinking and approach to growth mindset interventions and research (Dweck, 2015b). She cautions against a tendency to equate progress merely to effort and emphasises the need for strategies and approaches grounded in growth mindset theory too (Dweck, 2015b). In the past she has warned against a ‘band-aid’ approach: “You can’t simply remove the fixed mind-set and replace it with the growth mind-set” (Krakovsky, 2007, p.4). She now highlights the emergence of what Mackie terms ‘false growth mindset’ where lip service is paid to the theory but is not supported by apt practices within the classroom (Dweck, 2015b). It is therefore important that any research involving the development of growth mindset is supported by appropriate teacher training and a common standardised approach in the classroom.

There is also no accounting for individuality. As with most ‘teaching tools’, what works well in one classroom will not necessarily do so in another. Indeed, all teachers do and must adapt their ‘tools’ to their pupils they teach. As such, it makes assessing the impact of an intervention difficult. A teacher is autonomous and, while they may have been trained well, there is nothing to say that their approach and delivery of an intervention will be sustained and consistent. That
is not to say it is not worth doing, it is, however, worth consideration. Criticism of the limitations in terms of how reliable findings generated from classroom based interventions are suggest that their success isn’t transferable in that it relies heavily on how involved the researcher is (Yeager & Walton, 2011). Indeed commitment is a key factor in the success of any trialled approach. Pupils themselves also have a role to play in the culture they establish amongst their peers in that it is not always socially acceptable to be academically successful (Fuller, 1999). While the literature does offer support for the use of classroom based interventions (as outlined above) their findings are also limited, to an extent, by a heavy reliance on the individual: the pupil’s perception and staff’s individual observations of pupil behaviour (Cross, 2009; Lennon, 2010 & Thompson, 1984). Both the teacher and pupil are highly influential, therefore, in the success and reliability of classroom based research.

Dweck is at pains to emphasise the influential role of the teacher too: “teachers with more fixed mindsets engage in more ability grouping and create more self-fulfilling prophecies when it comes to student achievement”.(Dweck, 2014, p11). A teacher’s mindset influences their own behaviour (Rattan, Good & Dweck, 2012; Stipeck, Givven, Salmon & Macgyvers, 2001) and this will ultimately impact on what happens in the classroom. This mantra is supported by new research by Greg Gero Claremont Graduate University which calls the teacher’s need to believe that they can grow their teaching abilities as critical to pupils’ success and asserts that good learning should not come at the expense of saving face or avoiding risks in the classroom (Dweck, 2014). This sentiment is echoed in the educational blog ‘Reflection English’: ‘When school leaders and subject leaders do this, and when the staff room is full of teachers talking about the problems they are trying to solve, this is when our students will really start to learn from feedback” (Tharby, 2016, p.1). The warning inherent here, is the crucial role which teachers play in the success of classroom and pedagogy based intervention grounded in a mindset or attitude and one not to be ignored or easily dismissed.
My review of the literature leads me to make the following statements:

- The evidence linking mindset and academic attainment is well documented
- There is strong evidence to show interventions can have an impact on a pupil’s mindset and, in turn, on their well-being and approach to learning although it is less clear which type of intervention have had that most impact.
- Research findings suggest that the theory and science must be taught alongside the implementation of any intervention in order for it to have any success
- There is evidence to suggest that a person’s mindset is malleable and can be changed through focused interventions
- Small scale interventions have a proven success rate, there is less research into large scale or interventions on an institutional level
- There is evidence to support that mindset based interventions have a positive impact on pupils of all abilities
- The research suggests that both teachers and pupils have had positive experiences as a results of programmes associated with growth mindset interventions and highlight that both the pupil and teacher have a role to play in the use of pedagogy relating to emotional learning in schools and indeed a common culture of learning needs to be established
- There are some gaps in current research in that there is less UK based research and little based in a Welsh context

Chapter 3
Methodology
Introduction:

As the aim of this study was to assess the impact of an intervention on attainment within a relatively small time scale it seemed most appropriate that action research be used. Case studies relating to a lack of pupil resilience in relation to exam technique had already been conducted in the school (Williams, 2014) and I wanted to ascertain if a classroom based strategy could address the issues found here. While case studies do “tend to focus on exploring, in as much detail as possible, smaller numbers of instances or examples which are seen as being interesting or illuminating, and aims to achieve ‘depth’ rather than ‘breadth’ (Blaxter, Hughes and Tight, 2006, p 64), I would argue that in order to test a specific teaching strategy in the context of the classroom environment, that action research needs to be done.

“One of the pitfalls of action research can be starting from assumptions about the area you want to look at” (Bearne, Graham & Marsh, 2007, p6). I would suggest that my research is not based on assumption but both research and quantitative data showing a pattern with regard to attainment in examination conditions over a three year period. Furthermore, the cyclical nature of intervention via teaching – trialling – assessing and the repetition of this process meant that any impact could be assessed quickly. As the intervention used relates to teaching and learning in the classroom it could be put in place with immediate effect and adapted or reviewed with relative ease in real time in an existing context.

As Subject Leader, I was conscious of any research which would have a significant impact on staff work load or planning time and as such this approach was highly practical. As Denscombe suggests ‘it is important that research form part of practice rather than [be] a bolt-on addition to it’ (Denscombe, 2014, p.123). In the half term prior to this intervention, staff had been trialling a range of approaches geared towards raising attainment with this cohort. As such
there was no reason to think that there would be resistance to trialling an intervention based on feedback. Indeed, it helped to ensure that the normality of the setting was adhered to and that the research itself was not responsible for distorted results (Denscombe, 2010) as it did not significantly alter teaching and learning approaches already in existence in the English Department. “Teaching adolescents to become learners depends in large part on the identification of effective strategies that teachers can share with students to help them achieve their academic goals” (Farrington et al, 2012, p. 18). As the ‘Favourite No’ tool builds on and develops Assessment for Learning processes focused on formative feedback (already successfully imbedded in the excellent teaching and learning within the Department) pupils were more likely to accept the use of new ones. In fact, as outlined above, pupils at School A were already highly receptive to new techniques which had clear relevance to their impending assessments and examinations. Indeed, they were highly appreciative of tools which not only seemed relevant but applicable to other subject areas, which was the hope for this strategy in the long term.

**Sampling**

The pupil sample consisted of a mixed ability class of twenty nine pupils; 16 boys and 13 girls. This could be said to be representative of the cohort as all English lessons at GCSE are taught through mixed ability classes except for one which is the Additional Learning Needs (ALN) class who have very diverse and specific learning needs. It is also representative in that there are more boys than girls in the year group. Within the class there was one boy who was deemed eligible for free school meals (eFSM) and one pupil diagnosed with ALN which, as a percentage of the year group, is representative. There were three pupils who had been identified as More Able and Talented (MAT) in English, which, as a percentage of the year group, is also representative. In terms of attainment, the class are representative of the cohort in that the number of pupils achieving A*-C in assessed work prior to the intervention was equivalent to
that of the cohort’s attainment at the time. This made this sample valid and reliable and likely to support the use of future interventions on a larger scale study. In order to ensure accuracy ‘it is not only necessary to be measuring the right thing in research, it is also necessary to do so with sufficient detail and precision to make the results of some value’ (Denscombe, 2010, p146). I have been a participant in this study as the teacher of Class A and as Subject Leader for English directly responsible for the tracking and monitoring of pupil progress. While some may argue that this involvement could affect outcomes, due to bias, I would argue that it allows for the rigorous approach needed to ensure a reliable and accurate study as outlined by Denscombe’s statement above.

The staff sample size was 10.

**Methods**

A mixed method approach seemed suited to a project where both quantitative and qualitative data would inform its success. “A crucial principle in planning research is that the research methods are driven by the research topic/questions (not the other way around)” (Bearne, Graham & Marsh, 2005, p6). As such I chose methods which would produce both quantitative and qualitative data in order to ensure triangulation “two different research techniques…combined together to exploit the strengths of each” (Miller & Brewer, 2003, p.327). Furthermore, the use of the same methods on separate occasions as well as different methods on the same subject has helped achieve methodological triangulation (Cohen, Manion & Morrison, 2007) and thereby ensured the results of this study are both valid and reliable.
<table>
<thead>
<tr>
<th>Research Question (R.Q.)</th>
<th>Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How far will the implementation of an approach to feedback based on ‘making mistakes’ raise attainment in the GCSE English Language Unit 2 exam? (RQ1)</td>
<td>Data analysis of pupils’ attainment data prior to intervention</td>
</tr>
<tr>
<td></td>
<td>Data analysis of mini mock data during intervention</td>
</tr>
<tr>
<td></td>
<td>Data analysis of pupils’ January exam results</td>
</tr>
<tr>
<td>2. How much impact do pupils feel that using an approach to feedback based on ‘making mistakes’ has helped to build confidence in their approach to GCSE English Language Unit 2 exam?</td>
<td>Pupil questionnaires</td>
</tr>
<tr>
<td></td>
<td>Focus group</td>
</tr>
<tr>
<td>3. What value do teachers place on the use of an approach to feedback based on ‘making mistakes’ in preparing pupils for the GCSE English Language Unit 2 exam? (RQ3)</td>
<td>Staff questionnaires</td>
</tr>
<tr>
<td></td>
<td>Focus group</td>
</tr>
</tbody>
</table>

Pupils completed questionnaires (APPENDIX 2) prior to the intervention and were interviewed in a focus group after the intervention had taken place but prior to them sitting the examination in January in order to assess its impact on their confidence in relation to approaching the exam. Staff completed questionnaires (APPENDIX 3) after they were introduced to the theory and research supporting the intervention and trained on how to implement the strategy. A staff focus group discussion took place in the formal setting of a Department workshop, after the intervention had been taught over a half term, to highlight any perceived impact from an anecdotal perspective.

The nature of the research questions enabled me to use a range of methods in order to increase validity through triangulation, particularly important when assessing perceptions regarding the impact of a teaching and learning strategy. Qualitative research is a useful tool which informs
or ‘facilitates’ quantitative research and vice versa. Indeed Punch 2005 (cited in Blaxter, Hughes and Tight, 2006, p85) highlights eleven ways to combine these methods in order to triangulate data. Using both will also aid in the generalisation of results.

Table 2: Question Methods Matrix

<table>
<thead>
<tr>
<th>Research questions</th>
<th>Quantitative</th>
<th>Qualitative</th>
<th>Qualitative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Data analysis</td>
<td>Questionnaire</td>
<td>Focus Group</td>
</tr>
<tr>
<td>1</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>3</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

The same questionnaires were used in this study as in earlier case studies conducted in the department thereby making the results more comparable, this also meant that the questionnaires did not need to be piloted prior to use.

**Introducing the strategy**

All staff and pupils were ‘taught’ about growth mindsets using the same lesson (APPENDIX 4). After conducting my research and reading the scientific studies surrounding the use of growth mindset in schools I led a Department meeting whereby I outlined the findings and benefits which I (as Subject Leader) perceived they may have on developing more resilient learners. The lesson I compiled was using a range of materials, videos and slides provided as free online resources via the MindsetKit Programme (PERTS, 2015).
**Questionnaires**

Justification for qualitative methods in research asserts that it allows one to assess “life as it is lived” (Woods, 1999, Cited in Burton & Bartlett, 2005, p.22) and through rigorous enquiry into results “explore why they are happening” (Yates, 2004, p138).

**Pupils (RQ2)**

Questionnaires were given to pupils (APPENDIX 2) before the intervention strategy was used in English lessons. I wanted to avoid ambiguous or vague responses and as such chose a likert scale which did not allow for neutrality. Questionnaires were completed anonymously without name. However, pupils were asked to indicate their gender. On collection of the questionnaires, I made a note of which responses appertained to key groups of learners (eFSM, ALN, MAT, ethnic minority) in order to correlate these responses with ones obtained at a later stage through interviews. Participation was voluntary.

**Staff (RQ3)**

Questionnaires were given to staff (APPENDIX 3) after they were introduced to the teaching strategy they would be trialling in the classroom in order to assess how confident they felt with regard to using the technique and to ascertain how useful they thought it would be in terms of teaching and learning. This was also done in order to ascertain how enthusiastic and willing the teachers were in relation to its use in lessons. As such a scale which did not allow for neutrality was chosen. Completion of questionnaires was voluntary.

**Justification**

Questionnaires were chosen as an effective method in that they: allow for honesty through anonymity; have a lack of pressure associated with them; provide insight and highlight strong opinions and feelings. I am, however, acutely aware of their limitations: honesty may not be
as forthcoming as one would hope; the level of completion and return of sample may vary and the style of questionnaires used did not allow for neutrality.

**Focus Groups**

“The telling anecdote may be much more revealing and influential than almost any amount of figures” (Blaxter, Hughes and Tight, 2006, p84). With this in mind, focus groups conducted with pupils and staff provided qualitative data for this study.

**Pupils**

A stratified sample (every 3rd person) using the class register was used to select pupils for an informal focus group. This style of sampling was chosen in order to ensure a fair selection of pupils across gender and ability. It also meant that specific groups of learners (ALN, eFSM, MAT, ethnic minority) had a greater chance of being selected. As this was not a specific focus area outlined by my research questions I chose not to interfere or ensure they were /were not selected. Pupils were aware of the study and the process by which their names were selected. Participation in the focus group was voluntary. In order to conduct the focus group I asked pupils to discuss their thoughts using the questions outlined in the original pupil questionnaire (APPENDIX 3). Pupils were then asked to expand on these answers by giving examples or anecdotal evidence. An audio recording was done in order that responses may be listened to and analysed at a later date. Pupils were aware of this.

**Staff**

All staff members who completed questionnaires were involved in a staff focus group conducted in a Departmental workshop focused on sharing and evaluating strategies being used in year 11 English lessons. An audio recording was done in order to analyse responses at a later date. Staff were aware of this. While the meeting was part of scheduled staff professional development, participation in this focus group was voluntary.
**Justification**

Focus groups were chosen as an effective method as they: allow for a reliable cross section sample to be chosen, can be said to be representative of a whole sample and encourage an informal arena for pupil or teacher voice to be shared. “It tends to focus on exploring, in as much detail as possible, smaller numbers of instances or examples which are seen as being interesting or illuminating, and aims to achieve ‘depth’ rather than ‘breadth’ (Blaxter, Hughes and Tight, 2006, p 64).

I am aware of the limitations of such methods: samples may not be balanced in terms of gender; may not include all groups of learners (eFSM, ALN, MAT, ethnic minority); responses could be said to be influenced by the atmosphere generated by such a method and participation levels may be varied. I am also aware that responses may not reflect the desired outcomes of the study specifically, “Individual differences in ability, skills, needs, interests and learning style mean we each construct our learning of the same experience in different ways” (De Corte (1995) cited in Montgomery, D. (1998), p49). I am highly aware as a researcher that the topic will deal with individual perceptions which could produce far reaching results and perhaps not identify trends. I acknowledge that some participants may “find special status in being the object of research” (Miller and Brewer, 2003, p 215) and may not therefore act reliably and impact on the data gathered. I also acknowledge that individuals may not in reality “act as they say they do” (Burton and Bartlett, 2005, p140) and any correlation between questionnaires and focus groups needs to be tested for reliability.

I would also assert that rapport between researcher and subject is paramount in order to establish an open and honest environment in which to conduct such tasks and the researcher must accept the results as they fall or else risk invalidating their own study.
Ethical considerations

I employed the BERA Guidelines (2011) as a checklist. As a key are in the School and Department Improvement Plan for 2015-16 was to develop opportunities for resilience learners, it was supported by the Senior Leadership Team (SLT) as well as members of the English teaching staff. All involved did so on a voluntary basis and were assured that anonymity and confidentiality would be upheld at all times. All participants were free to withdraw at any time. I submitted the Cardiff Metropolitan University Application for Ethics Approval to my course mentor who supported the study and signed to acknowledge this. All those involved signed consent forms (APPENDIX 6) and were aware of the action research they were a part of.
Chapter 4: Results and Analysis

RQ1: How far will the implementation of a scaffolding approach to feedback on non-fiction reading tasks raise attainment in the GCSE English Language Unit 2 exam?

As outlined earlier, all pupils in the year 11 cohort at School A were introduced to a feedback strategy called ‘My Favourite No’ in October 2015. Pupils in Class A were used as the focus for this project in order to assess the impact of this trial as part of a small scale study. For the purpose of this study a stratified sample of 9 pupils (Sample A) was selected in order to assess the impact which the project may or may not have had on individual pupils and their attainment. In the weeks prior to the implementation of the strategy pupils sat two internally assessed mock examinations. After the implementation of the strategy pupils sat one further internally assessed mock and one externally assessed GCSE English examination in January 2016. All examinations were done in formal conditions.

The results below show the A*-C grade attainment data for Sample A in relation to the year 11 cohort and in relation to their class as a whole (Class A).

Comparison of attainment for Year 11, Class A and Sample A over four assessments

![Comparison of GCSE English attainment showing percentage of A*-C grades awarded across four assessment sessions for Year 11 (sample size n=230), Class A (n=29) and Sample A (n=9).](image)

Figure 2: Comparison of GCSE English attainment showing percentage of A*-C grades awarded across four assessment sessions for Year 11 (sample size n=230), Class A (n=29) and Sample A (n=9).
Analysis of results: Comparative view:

Year 11: While the cohort showed a 2% improvement in A*-C grades between Mock 1 and Mock 2 there was a dip in attainment of 3% post intervention to 42% A*-C. Final attainment showed a rise of 16% from Mock 3 to 58% which was a 15% rise over the course of all four assessments.

Class A: Attainment for this class shows a slight incremental rise from 45% to 48% and 50% respectively from Mock 1 -3. This is not statistically significant in terms of improvement in attainment. The rise in attainment from Mock 2 to Mock 3 is negligible at 2%. Data for the final exam does however show an increase of 18% from Mock 3 and a significant rise of 23% over the course of all four assessments which is a clear improvement in attainment terms.

Sample A: This data reflects the trends seen in Class A in that little to no improvement in A*-C grades from Mock 1 to Mock 2 and then a rise of 12% from Mock 2-3. Attainment rose again by 11% from Mock 3 and by 23% over the course of all four assessments again showing a clear improvement in attainment terms according to the percentage of A*-C grades awarded.

The table below shows this attainment at pupil level for Sample A. Shading indicates the achievement of a C grade or above.

Table 3: Attainment for pupils in Sample A over four assessments

<table>
<thead>
<tr>
<th>Pupil</th>
<th>Mock 1</th>
<th>Mock 2</th>
<th>Mock 3</th>
<th>Final</th>
<th>Impact on attainment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girl 1</td>
<td>C</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>→ stayed</td>
</tr>
<tr>
<td>Girl 2</td>
<td>D</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>↑ rose</td>
</tr>
<tr>
<td>Girl 3</td>
<td>E</td>
<td>D</td>
<td>C</td>
<td>C</td>
<td>↑</td>
</tr>
<tr>
<td>Girl 4</td>
<td>C</td>
<td>D</td>
<td>C</td>
<td>C</td>
<td>→</td>
</tr>
<tr>
<td>Boy 1</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>→</td>
</tr>
<tr>
<td>Boy 2</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>→</td>
</tr>
<tr>
<td>Boy 3</td>
<td>D</td>
<td>D</td>
<td>C</td>
<td>D</td>
<td>→</td>
</tr>
<tr>
<td>Boy 4</td>
<td>C</td>
<td>C</td>
<td>D</td>
<td>D</td>
<td>↓ dropped</td>
</tr>
<tr>
<td>Boy 5</td>
<td>E</td>
<td>D</td>
<td>D</td>
<td>C</td>
<td>↑</td>
</tr>
</tbody>
</table>

Table 3: Table showing attainment A*-C grades for pupils from stratified Sample A (n=9) pre (Mock 1-2) and post (Mock 3 & Final) intervention strategy
### Key: Impact on attainment

- →: no clear impact on attainment outcome
- ↑: rise in attainment outcome
- ↓: Drop in attainment outcome

### Analysis

In Mock 1 and Mock 2 an equal number of boys and girls (two) achieved a C grade or higher. After the intervention all four girls achieved a C grade or higher and two boys achieved a C grade or higher. In the final examination all four girls achieved a C grade or higher and only one achieved a C grade or higher. The ALN pupil (Girl 3) achieved C grade on 2 out of 4 assessments and notably only after the intervention. The pupil eligible for Free School Meals (Boy 5) did not achieve a C grade in the internally assessed mock examinations but did achieve a C grade in the final examination. In terms of impact on attainment (as indicated by the arrows above) two girls (Girl 2 and Girl 3) increased their grade from a D and an E to a C grade respectively and improvement appears sustained post intervention (this is particularly true of Girl 3 the pupil with ALN). Although Girl 4’s attainment did not improve overall, her attainment did rise from a D to a C grade post intervention and this attainment was subsequently sustained. The impact on boys’ attainment is harder to access as three out of five boys did not improve their grade overall from Mock 1 to the final grade. Boys 4’s attainment has actually remained on a D grade. Interestingly, the only pupil whose attainment grade has increased is Boy 5, the pupil deemed eFSM. His attainment shows steady incremental improvement across each assessment. These results reflect trends seen in attainment data from Sample A and Class A in terms of gender and groups of learners. In particular, the impact on attainment across all pupils was not statistically noticeable in terms of grade increases; girls achieved more C grades than boys and girls attainment improved steadily while boys’ tended to fluctuate more. As
such the quantitative data produced from Sample A could be said to be more representative and reliable. This is true too of the stratified sampling method chosen in that, it contained a ratio of girls to boys equal to that of Class A to which they belong; it contains the pupil in Class A identified as having Additional Learning Needs (Girl 4) and the pupil who is eligible for Free School Meals (Boy 5). What stands out in Sample A is the improvement in terms of attainment of both the pupil with ALN and the pupil identified as eFSM; this does not mirror attainment trends for the whole cohort.

**Evaluation**

While there may not be statistically significant improvement in terms of attainment across Sample A, the trends highlighted above in relation to pupils with ALN and those deemed eFSM is encouraging; especially given that this trend was not mirrored across the cohort. The fact that these groups of learners appear (on a small scale at least) to have had a positive experience, in terms of attainment at least, as a result of the intervention used provides a solid foundation for further action research in this area. It is interesting to note the trends which have occurred in terms of gender too and begs the question as to why this is so. It would be interesting to evaluate this on a large scale study which a bigger sample over time. It is also pleasing to see an incremental rise in attainment terms across most pupils from 44% A*-C in Mock 1 & 2 to 56% A*-C in Mock 3 and 67% in the final exam.

While encouraging, it is worth noting the possible factors which may have affected these findings. The ‘Favourite No’ feedback strategy had only been rolled out for use in English lessons for one week prior to Mock 3 and perhaps this did not leave sufficient time for it to have significant impact in all classes as most staff would have seen their pupils for a maximum of 3 lessons over this time. During this period, the year 11 cohort were also involved in preparations for an external GCSE Mathematics examination which involved 5 stand down
days off timetable. This led to an impact on teaching hours for English and as such would have impacted the amount of focus that could have been placed on this initiative in lesson. In future it would be necessary to liaise with other departments as to when their internal and external assessment periods are in order to take such activities into account. The ‘Stand Down week’ was a new trial within the school and implemented late in the term, as such its impact was unavoidable and unforeseeable at the time of this study. The impact it may have had on this research cannot however be ignored.

Conversely, the sharp rise in attainment between Mock 3 and the final examination may also be attributed to the fact that pupils had completed preparations for their Mathematics GCSE and sat their exams in this subject. This could have allowed more time for pupils to focus on English. It is also important to note that post Mock 3, pupils would have had a minimum of three specified lessons as outlined by the teaching scheme of work (Appendix 5) integrating the ‘Favourite No’ strategy. As such, the strategy would have had more time to make an impact or integrate into everyday teaching and learning approaches within the department and would have had maximum impact in the run up to the external examination itself. It may also be that pupils themselves had time to become more aware of their strengths and indeed weaknesses with regard to examination technique over time and may have become more adept at approaching examination tasks. Furthermore, within English itself, a number of initiatives were being trialled in order to impact on attainment within the department. This was as a result of lower than expected outcomes in Summer 2015 exam results and the desire to revisit all exam technique and approaches at this time. This does not negate the impact which this study may have had on outcomes but does highlight the difficulty in evaluating one strategy’s efficacy over another’s.
While the rise in attainment for all pupils from Mock 1 to the final examination is undeniable, it cannot be solely attributed to the implementation of a single feedback strategy in English lessons. As is common in classroom based research, it is difficult to pinpoint which strategy, initiative or intervention has had the most impact when a range are used simultaneously at any one moment within the classroom; this is at the essence of excellent teaching. To attribute one would simplify the teaching and learning process and undermine the repertoire of tools and approaches which teachers use in order to help raise attainment in the classroom. Perhaps it is enough to acknowledge impact rather than attribute success to one approach; the data from this study appears to support this.

**Possible limitations: External influences**

The pressures which pupils at this stage in their school careers face also cannot be ignored in terms of impact on attainment. The range of initiatives taking place across a school community will undeniably further impact on pupils’ ability to or indeed inability to succeed in other subjects. A year 11 cohort involved in the trial of two new initiatives within both core subjects will have both benefitted and suffered in terms of attainment. On one hand, it could be suggested that the data indicates that pupils have become better at coping with the demands of the English exam paper through a rise in attainment and that an improvement in the results quantifies this. On the other hand this may be said to be a product of combined approaches and strategies being implemented both within the English teaching arena and the wider school. As School A is an innovative and ‘sector leading’ school in relation to teaching and learning (Estyn, 2015); perhaps it may be more accurate to conclude the latter is the cause of a rise in attainment here. Indeed research which asserts that the combined use of several strategies is more effective than the use of one or two in an isolated context (Haller et al, 1988). While not the root or cause of the rise, the use of a feedback strategy in relation to pupil attainment in the Unit 2 non-fiction English Language exam is, however, most certainly a contributing factor.
RQ2

To what extent do pupils feel that the use of a scaffolding approach to feedback focused on ‘making mistakes’ has helped build their confidence in their approach to the GCSE English Language Unit 2 examination?

As outlined earlier, all pupils in Class A completed a questionnaire (APPENDIX 2) prior to the intervention in early October 2015 in order to ascertain their views in relation to existing strategies as well as their level of confidence in relation to the upcoming English Language exam. The intervention was then trialled in lessons over a period of four months. Subsequently, a stratified sample of pupils (Sample B) were asked to take part in an informal focus group to revisit their views. This took place after the intervention but prior to the final GCSE examination taking place. This was in order to avoid ‘post exam bias’ which I felt could interfere with pupils’ attitudes should pupils have felt that the exam went especially well. Pupils had access to the original questionnaires during the focus group in order to reflect and expand on their earlier views. This mixed method approach allowed me to cross reference key findings and to explore issues highlighted through the questionnaires in more depth through listening to pupils and allowing them to expand on their thoughts.

In order to analyse the array of qualitative data generated by using a questionnaire and a focus group I decided to employ coding as a means to identifying key themes and trends inherent in the pupils’ responses. This was also done in order to assess whether there were any key overlapping, or indeed contradicting, data generated through the use of a questionnaire and focus group with staff involved in this trial which is the focus for my third and final research question (RQ3). This was a very useful method with which to synthesise a large amount of anecdotal and qualitative data. As Flick suggests, the use of a coding frame “helps with
reducing the amount of material. It requires the researcher to focus on selected aspects of meaning, namely those aspects that relate to the overall research question” (Flick (ed.), 2013, p.167). I certainly found this to be case. It was also highly beneficial in comparing views and highlighting trends between different groups.

On analysis of all comments and questionnaires generated by staff and pupils, five key themes emerged as significant:

1. Confidence in approach to the examination
2. Attitude towards English
3. Attitudes to failure / mistakes
4. Willingness
5. Resilience and motivation to improve

For pupils, these relate to their views regarding their ability and confidence and provide insight into the pupils’ views regarding their English lessons at the time. For staff, these relate to how staff perceive pupils were developing in terms of their confidence and ability with regard to the English examination and provide insight into how staff regard the use of the ‘Favourite No’ strategy as a teaching and learning tool.
Results

1. Pupils’ Questionnaires

The table below outlines the number of responses given for each question and how each question corresponds to the themes outlined above.

<table>
<thead>
<tr>
<th>Question</th>
<th>Agree</th>
<th>Not Sure</th>
<th>Disagree</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel confident about sitting the reading section of the January Unit 2 exam</td>
<td>8</td>
<td>14</td>
<td>7</td>
<td>• Confidence</td>
</tr>
<tr>
<td>2. I understand why we sit mini mocks in English</td>
<td>9</td>
<td>15</td>
<td>5</td>
<td>• Attitudes to English</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Willingness</td>
</tr>
<tr>
<td>3. I don’t think I can do well in English</td>
<td>20</td>
<td>5</td>
<td>4</td>
<td>• Confidence</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Attitudes to English</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Resilience</td>
</tr>
<tr>
<td>4. When I don’t get my target grade on a reading task I feel demotivated</td>
<td>19</td>
<td>1</td>
<td>9</td>
<td>• Attitudes to English</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Resilience</td>
</tr>
<tr>
<td>5. When I make a mistake on a reading task in English I don’t mind</td>
<td>9</td>
<td>10</td>
<td>10</td>
<td>• Attitudes to failure</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Willingness</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Resilience</td>
</tr>
<tr>
<td>6. My teacher shows us work with mistakes and we look at it as a class</td>
<td>5</td>
<td>9</td>
<td>11</td>
<td>• Attitudes to failure</td>
</tr>
<tr>
<td>7. I don’t mind my work being shown to the class when it has a mistake</td>
<td>2</td>
<td>10</td>
<td>17</td>
<td>• Confidence</td>
</tr>
</tbody>
</table>

Table 4: Table showing number of answers given per question by Class A (n=29)
Analysis by theme:

Out of 29 pupils, a majority (21 pupils) were either unsure or lacking confidence both toward the examination and English and had little desire (27 pupils) to share failures or work with others prior to the intervention. Attitudes towards English show pupils were unsure of the reasoning behind strategies already in place (15 pupils), had little confidence in their own ability (20 pupils) and were feeling demotivated when failing to achieve target grades (19 pupils). Prior to the intervention pupils are unsure of how they felt about making mistakes (10 pupils) and most dislike these mistakes from being shared (17 pupils). It is clear that mistakes were also not commonly shared with the class by the teacher. There are mixed responses with regard to willingness and many pupils are unsure of their feelings as shown by question 2, 5 and 7. Due to negative feelings with regard to mistakes being shared and motivation levels after missed target grades, it is evident that levels of resilience were low amongst pupils in Class A prior to the intervention being trialled.

2. Pupil Focus Group

The table below shows how pupils responded in the focus group and how these are linked by theme. Pupil gender is also indicated in order to identify any significant findings.

<table>
<thead>
<tr>
<th>Boy 1</th>
<th>Boy 2</th>
<th>Boy 3</th>
<th>Boy 4</th>
<th>Boy 5</th>
<th>Girl 1</th>
<th>Girl 2</th>
<th>Girl 3</th>
<th>Girl 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confidence</td>
<td>+</td>
<td>+</td>
<td>++</td>
<td>+</td>
<td>+</td>
<td>++</td>
<td>++</td>
<td>+++</td>
</tr>
<tr>
<td>Attitudes to English</td>
<td>=</td>
<td>-</td>
<td>X</td>
<td>++</td>
<td>++</td>
<td>X</td>
<td>X</td>
<td>++</td>
</tr>
<tr>
<td>Attitudes to failure</td>
<td>=</td>
<td>++</td>
<td>+++</td>
<td>++</td>
<td>+++</td>
<td>+++</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td>Willingness</td>
<td>+++</td>
<td>-</td>
<td>X</td>
<td>=</td>
<td>+</td>
<td>X</td>
<td>x</td>
<td>++</td>
</tr>
<tr>
<td>Resilience</td>
<td>=</td>
<td>++</td>
<td>+++</td>
<td>++</td>
<td>+++</td>
<td>+++</td>
<td>+++</td>
<td>+++</td>
</tr>
</tbody>
</table>

Table 5: Results of pupil focus group (Sample A) conducted post-intervention

Table 5: Table showing type and frequency of comment made by each pupil in Sample A (n=9) in relation to theme during the focus group
Interestingly, all pupils made a positive comment in relation to confidence levels post intervention strategy. There are, however, mixed attitudes to English revealed through this data. While three pupils have made positive remarks, one boy and one girl have made negative remarks. Encouragingly, attitude to failure shows a marked improvement in terms of positivity. Whereas the questionnaires indicated a negative attitude, during the focus group seven out of nine pupils expressed more than one positive comment in relation to this theme and significantly Girl 3 (the pupil with ALN) expressed four positive comments showing a real change in attitude with regard to failure post intervention. This is also true of the type of comments made in relation to resilience, which exactly mirror those made with regard to attitudes to failure. This is worth highlighting as is may suggest that improved attitudes to failure have had a positive effect on pupils’ perceptions in relation to resilience. While there is some improvement in terms of willingness shown by comments made by Boy 1 and 5 and Girl 4, comments made in relation to this theme were limited. This is interesting in itself in that it may not suggest a lack of willing on the part of pupils but perhaps an inability to express this feeling in front of a teacher. As I was the teacher conducting the focus group and Sample A’s English teacher, it may have had had an impact on what pupils felt they could say and could be said to have influenced the data here.
Gender:

Overall, the number of positive responses given by boys and girls was similar with 33 and 32 responses being given respectively. Pleasingly, both girls and boys made increasingly positive responses in three key areas: confidence; attitudes to failure and resilience and were similar in their views across the other two themes. It is worth noting however that the number of positive comments made by the ALN pupil (Girl 3) across all themes was significantly higher than the rest of the pupils in Sample A. Girl 3’s positive responses clearly show an improvement in relation to confidence and a markedly positive attitude towards failure which has, it could be argued, increased her positive remarks in relation to resilience and motivation to improve. Importantly, this supports the findings outlined above in relation to Girl 3’s attainment (as noted above) which also improved over time.

Coding:

The results generated by the pupil questionnaire and focus group can be amalgamated as follows using a process of coding by theme:

Table 6:

<table>
<thead>
<tr>
<th>Theme</th>
<th>Description</th>
<th>Question overlap</th>
<th>PQ finding</th>
<th>PFG Key Comments</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Confidence</strong></td>
<td>Ability to do the exam. Contribution to lesson. Confidence under pressure.</td>
<td>1,3,7</td>
<td>Unsure and lacking confidence in ability</td>
<td>'Not to start', 'more now I know how to improve', 'I talk more'</td>
<td>Many pupils comment of how they are more aware of what to do and this is inc. confidence.</td>
</tr>
<tr>
<td>2. <strong>Attitudes to English</strong></td>
<td>Enjoyment of subject. Positive or negative reactions to intervention. Change in attitude over time.</td>
<td>2,3,4</td>
<td>Unsure of strategy Lack confidence Demotivated</td>
<td>'Feel demotivated when I don’t get my target', 'don’t like grades', 'I like sharing work and seeing other people struggle too'</td>
<td>Majority of Pupil Q indicated feeling demotivated. Saw failure as a negative now this is more like a</td>
</tr>
<tr>
<td>3. <strong>Attitudes to failure / mistakes.</strong></td>
<td>In lessons and after assessed work. Ability and willingness to share mistakes in lessons. Use of mistakes by teacher. Impact on confidence.</td>
<td>5,6,7</td>
<td>Unsure of feelings regarding mistakes. Little use of mistakes by teacher. Lacking confidence to share mistakes.</td>
<td>'We never used to see mistakes we had made’, ‘Miss shows us her work too’, ‘I like using the ipads’, ‘We do a starter or a game every lesson and it is always like this’, ‘We have a homework every week with mistakes which someone in the class has done’</td>
<td>Only 1 pupil in FG still reluctant to share mistakes. ALN pupil enjoys the game element in lessons and is able to contribute more now. Increased use in lessons.</td>
</tr>
<tr>
<td>4. <strong>Willingness</strong></td>
<td>To use strategies associated with the intervention. Share success and failure.</td>
<td>2,5,7</td>
<td>Unsure of strategies. Unlikely to share mistakes or failures.</td>
<td>'I never used to like seeing my work on the board but now we all do it, It’s easier’, ‘I feel more confident sharing work which may have a mistake in it’</td>
<td>Confidence linked to willingness to engage and take part.</td>
</tr>
<tr>
<td>5. <strong>Resilience and motivation to improve</strong></td>
<td>Ability to persevere. See long terms benefits. Attitude to exam.</td>
<td>3,4,5,7</td>
<td>Lacking confidence in ability. Demotivated in the face of failure. Unlikely to use mistakes as a motivating tool.</td>
<td>'feel more confident than I did before’, ‘The class like to spot the mistake’, ‘if I don’t do as well next time I will try to use this to do better’ ‘I think this will help me to do the exam and in other subjects’</td>
<td>Noted increase in confidence in the face of failure or mistakes. Engaged with the fun aspect. Able to apply these skills in the future.</td>
</tr>
</tbody>
</table>

*Table 6: Table showing key findings from pupil questionnaires (Class A, n=29) and Focus Group (Sample A, n=9) by theme*
Evaluation

Post intervention, is it clear that confidence levels have risen in relation to how a pupil perceives their ability to approach the English Language examination. Prior to the intervention 14 out of 19 pupils were unsure about their confidence levels showing a lack of confidence in itself (Table 4). Interestingly, the focus group (Table 5) generated positive comments relating to increased confidence from all participants and pupils appeared more able to talk about their views suggesting too an improvement in confidence as well as an improved awareness of skills and strategies used. They appear to be more self-assured. This supports Caxton’s assertion that “Young people want and need to learn how to learn” (Caxton, 2002, p.49). Comments such as ‘I talk more’ and ‘more now that I know how to improve’ support this attitude (Table 6). What is certain is that pupils in Sample A have shown a clear improvement in terms of confidence levels over time. The improvement in attitude toward failure may go some way toward explaining this. The number of positive remarks made in relation to failure and making mistakes as outlined by the focus group results (Table 5) certainly supports this assertion. As they appear to have increased and improved, so too do confidence levels in relation to the examination. Where pupils showed a clear dislike for making mistakes, and sharing these with peers, prior to the intervention (Table 4), this appears to have improved significantly post intervention as shown by the number of positive remarks noted in the focus group (Table 5). This is supported by comments such as ‘ [I] feel more confident than I did before’, ‘The class like to spot the mistake’ and ‘if I don’t do as well next time I will try to use this to do better’ made by pupils during the focus group (Table 6). This could be directly linked to the increased use of this strategy by staff over this time. Whereas twenty out of twenty-nine pupils were either unsure or disagreed that their teacher showed them mistakes, that were discussed as a class, prior to the intervention (Table 4), post intervention pupils in the Sample A make statements such as ‘We have a homework every week with mistakes which someone in the
class has done’ and ‘The class like to spot the mistake’ (Table 6) showing a clear acknowledgement of the increase in the use of this strategy in lessons. Comments made in relation to willingness (although limited as indicated by Table 5) are also in relation to the use of work containing mistakes again suggesting that this has had a positive impact on pupils’ confidence. This can also be said to be true in relation to resilience. Attitudes regarding ability, motivation and willingness were low pre intervention (Table 4) and have improved significantly as shown in Table 5 and 6 ‘I think this will help me to do the exam and in other subjects’.

**Possible limitations- role of the teacher.**

This data is very pleasing and the findings from the focus group certainly give weight to this research. It is encouraging to see such an improved perspective in terms of pupils’ perceptions and attitudes to subject and examination. I do, however, acknowledge the role the teacher plays in this process. As the teacher of Class A, I am acutely aware of the focus I placed on this teaching and learning tool in my planning and teaching and am aware that this will have played a role in influencing the outcome of the study. This was intentional as I wanted to ensure the ‘Favourite No’ strategy was introduced and imbedded in lessons fully and this was the only way to control this variable. I do not perceive this to be a limitation in this study but this could however limit the success future studies have if staff do not fully follow or support this approach or indeed use it the extent which I have done here. As Melia (1997) suggests, “each researcher or research team is likely to develop their own pragmatic variant, depending on the precise conditions under which they are carrying out their studies” (Cited in Flick, 2013, p. 490). Another possible limitation when analysing the above data is the influence I may or may not have had as the member of staff conducting the focus group for Sample A. As intimated earlier, pupils in Sample A may or may not have been influenced by my presence at this time and their responses may have been adjusted accordingly. This ‘Hawthorne effect’ (Haralambos
& Hoborne, 2008) may, therefore, have influenced the results of this project. Another colleague did attend the focus group and all responses were recorded in order to ensure reliability of data generated but this could be said to have played a part and thereby influences the outcome of the groups’ discussions.

In conclusion, I would argue that the intervention has had a significantly positive effect on pupils and their confidence in relation to the English Language examination. The data above suggests that with the increase in the use of mistakes in the classroom as a teaching and learning strategy pupils have become more confident when sharing mistakes and their attitudes towards failure have improved as a result. This has in turn led to an increase in feelings of resilience in the face of failure with regard to the examination thereby improving pupils’ confidence levels. This is particularly true of the pupil in Sample A with ALN needs (Girl 3) as shown by the responses outlined in Table 5. These findings support Dweck’s assertion then that “educational interventions that target these psychological factors can have transformative effects on students’ experience and achievement in school (cited Rustin, 2016, p.1). It is pleasing to note that boys and girls have shown an improvement in terms of attitude in equal measure too (Table 5).

Next, I will look at staff perceptions in relation to the intervention as outlined by my third and final research question.
RQ3:

**What value to staff place on the use of a scaffolding approach to feedback focused on ‘making mistakes’ in preparing pupils for the GCSE English Language Unit 2 examination?**

As outlined above, staff in Department A were asked to complete questionnaires (APPENDIX 3) relating to the use of a growth mindset teaching and learning strategy entitled ‘My Favourite No’. Staff were introduced to the intervention in a departmental workshop in early October 2015 and given a one hour professional development training session (APPENDIX 4) on how to use the approach in future lessons. Staff were asked to complete questionnaires after being given the training but prior to the intervention being rolled out in lessons. Completion of questionnaires was high with 10 out of 12 members of staff asked submitting their responses.
Results

1. Staff Questionnaires

The table below shows the results of these questionnaires and how each question corresponds to the themes discussed earlier.

Table 7: Results of staff questionnaires conducted pre-intervention

<table>
<thead>
<tr>
<th>Question</th>
<th>Very</th>
<th>Not Sure</th>
<th>Not at all</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How convinced are you about academic mindsets?</td>
<td>6</td>
<td>4</td>
<td>0</td>
<td>• Confidence</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Willingness</td>
</tr>
<tr>
<td>2. How worthwhile do you think developing growth mindsets are for our year 11 learners?</td>
<td>6</td>
<td>4</td>
<td>0</td>
<td>• Attitudes to English</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Willingness</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Resilience</td>
</tr>
<tr>
<td>3. How appropriate do you think the ‘favourite no’ feedback structure is for our year 11 learners?</td>
<td>7</td>
<td>3</td>
<td>0</td>
<td>• Attitudes to English</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Attitudes to failure</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Resilience</td>
</tr>
<tr>
<td>4. How confident do you feel about trialling this approach?</td>
<td>8</td>
<td>2</td>
<td>0</td>
<td>• Confidence</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Willingness</td>
</tr>
</tbody>
</table>

Table 7: Table showing number of answers given per questions by Department A (n=10)

Analysis by theme:

Staff in Department A clearly saw the worth in trialling the ‘Favourite No’ strategy as shown by the lack of any negative responses to any question posed. While some staff appear a little unsure (4 teachers) about academic mindsets in general, it is clear they saw the value in trialling this initiative with this year’s, year 11 pupils, as shown by the results for question 2 and 3. It was pleasing to see that 80% of staff felt very confident about trialling the approach in lessons post training and the two who were unsure sought clarification in the early stages of the trial in
order to boost their confidence further. While pupils’ attitudes to English and failure are not
directly discussed in this questionnaire, the fact that 60% and 70% staff respectively saw this
approach as very worthwhile or appropriate for pupils at this time highlights a need to address
this area and clear support for the trial. The level of willingness by staff is high as shown by
the number of positive responses given in every question. The success of any initiative lies
with the level of willing shown by those involved and the results of this questionnaire suggest
staff in Department A place high value and worth in the use of the feedback approach being
investigated for this research.

The high level of willingness shown by staff was evident in the high completion rate with
regard to the questionnaires and through the comments made by staff in the box included at the
end entitled ‘other comments’. Responses given are outlined below. Gender is indicated in
order to allow for cross reference with comments made in the staff focus group.

Male teacher 1: ‘I like the way this might attack their defeatism.’

Female teacher 2: ‘Very willing to have a go.’

Female teacher 3: ‘Training was very clear and easy to follow. Looking forward to trialling
it.’

Female teacher 4: ‘Not too dissimilar from what we do now in practice – It will be good to
share theory with the pupils so they understand why we do it.’

Teacher 1’s comments also help to provide justification and support for this trial at this time
from a staff perspective and again serve to indicate the high level of value staff place on this
approach. Teacher 4’s comments make reference to the number of already successful teaching
and learning tools in place within both School A and Department A, as noted in the analysis of
results for RQ1. Whereas, this could be seen to be a limitation due in part to ‘strategy fatigue’,
in this case, it may suggest a higher level of success for the intervention among staff and pupils
given the similarity and therefore familiarity to strategies already in place. Certainly, the high
level of confidence, 80% of staff stated that they were very confident in delivering the strategy, suggests so.

2. Staff focus group

The table below shows how staff responded in the focus group and how these are linked by theme. Gender is also indicated in order to highlight any significant findings. The same numbers were allocated to staff for both the questionnaire and the focus group in order to identify any trends or changes in their views.

Table 8: Results of staff focus group conducted post-intervention

<table>
<thead>
<tr>
<th></th>
<th>Male 1</th>
<th>Male 2</th>
<th>Male 3</th>
<th>Male 4</th>
<th>Female 1</th>
<th>Female 2</th>
<th>Female 3</th>
<th>Female 4</th>
<th>Female 5</th>
<th>Female 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confidence</td>
<td>++</td>
<td>+</td>
<td>++</td>
<td>+</td>
<td>++</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+++</td>
</tr>
<tr>
<td>Attitudes to English</td>
<td>++</td>
<td>+++</td>
<td>x</td>
<td>+</td>
<td>=</td>
<td>++</td>
<td>+</td>
<td>=</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Attitudes to failure</td>
<td>++++</td>
<td>++</td>
<td>++++</td>
<td>+++</td>
<td>++</td>
<td>+++</td>
<td>=</td>
<td>++</td>
<td>+++</td>
<td></td>
</tr>
<tr>
<td>Willingness</td>
<td>+</td>
<td>+</td>
<td>x</td>
<td>++</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>=</td>
<td>++</td>
<td>x</td>
</tr>
<tr>
<td>Resilience</td>
<td>++++</td>
<td>++</td>
<td>++++</td>
<td>++</td>
<td>++</td>
<td>++</td>
<td>++</td>
<td>=</td>
<td>++</td>
<td>++</td>
</tr>
</tbody>
</table>

Table 8: Table showing type and frequency of comment made by each teacher in focus group (n=10) in relation to theme

Key:
+ : a positive comment or sense of improvement suggested by comments
- : a negative comment or lack of improvement suggested by comments
= : ambivalence or status quo suggested by comments
X : no comments linked to theme
Analysis by theme

As was the case with the pupil focus group, all staff made a positive comment in relation to confidence levels post intervention. With staff this related to both their confidence in the delivery of the intervention but more frequently, their remarks were about the increased confidence of learners in their classroom. There is a sense of improvement suggested by the number of positive comments staff have made regarding pupils’ attitudes to English as well as by the number of staff making them (8 out of 10 staff have made at least one positive comment). Significantly, there are more positive comments relating to pupils’ attitude to failure compared to any other area (25 comments overall). This shows a good level of support for the impact the intervention has had when examining pupils’ approaches to learning from a staff perspective and suggests that staff place high worth on the use of the ‘Favourite No’ tool as trialled in this research. Staff clearly see a change in how pupils have responded in the face of failure post intervention and this may have gone some way towards tackling what Male teacher 1 termed as their ‘defeatism’. This also reflects the findings from the pupil focus group outlined earlier which showed an improved attitude toward failure from a pupil perspective. Staff willingness remains positive and high with 80% of staff making positive remarks regarding the use of the intervention as a teaching and learning tool. This trend is reflected in the number of positive comments made by staff in relation to pupils’ resilience. Indeed, every member of staff made at least two positive comments relating to this theme. This mirrors the findings from the pupil focus group outlined earlier. It is interesting to see that an improvement in attitudes toward failure has led to an improvement in relation to resilience from both a staff and pupil perspective.
Gender

Overall the number of positive remarks made by male and female teachers was similar with 44 and 41 responses being given respectively. As was the case with the pupil focus group, both male and female staff made increasingly positive responses in three key areas: confidence; attitudes to failure and resilience and were similar in their views across the other two themes.

While staff have responded in a similar fashion overall, it is worth noting Female teacher 4’s responses in relation to all themes. During the questionnaire stage of this trial, this staff member commented on how the proposed intervention was similar to teaching and learning tools already in place within Department A. While, on one hand, this may have made it easier for most staff to confidently adopt or include this strategy in their lessons it may have led to teacher 4 not allocating as much time or effort to developing a tool she thought was too similar to ‘what we already do’. Her apparent ambivalence or lack of positivity in her focus group comments perhaps also point to this. Indeed, it could be argued that both the questionnaire and focus group results suggest a lack of willing rather than a willingness to support this proposed intervention from this member of staff. This is not statistically significant to the overall study given the small scale nature of this project. However, it is worth noting when considering long term projects or wider research in the future.

Coding:

The results generated by the staff questionnaire and focus group can be amalgamated as follows using a process of coding by theme:
<table>
<thead>
<tr>
<th>Theme</th>
<th>Description</th>
<th>Question overlap</th>
<th>SQ finding</th>
<th>SFG Key Comments</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Confidence</td>
<td>Pupils’ ability to do the exam. Staff ability to deliver approach.</td>
<td>1, 4</td>
<td>Very high on theory. Some needing extra support post training.</td>
<td>‘I enjoyed the approach’. ‘I grew in confidence and changed how I used the strategy ... it developed over time and it has many uses.’ ‘Pupils like to spot and correct the mistakes’. ‘They like to see other pupils have the same struggles and learn from how we correct them.’</td>
<td>Confidence has grown over time. With confidence staff will adapt how approach is used. Game element is a common approach (unexpected)</td>
</tr>
<tr>
<td>2. Attitudes to English</td>
<td>Pupils’ enjoyment of subject. Positive or negative reactions to intervention (staff and pupils). Change in attitude over time.</td>
<td>2, 3</td>
<td>Most staff think its worthwhile trial and well suited to pupil sample selected.</td>
<td>‘Pupils responded well’. ‘Knowing the theory behind what we were doing helped to inspire pupils’. ‘Pupils enjoyed the game aspect and challenge of the strategy I used’. ‘I can see it having a positive effect long term’. ‘The target group have enjoyed being a part of a study/project.’</td>
<td>Pupils appreciate theory. Pupil positivity mirrors staff input. Pupils have enjoyed new addition to lessons. Target group (C/D) pupils have responded well.</td>
</tr>
<tr>
<td>3. Attitudes to failure / mistakes.</td>
<td>In lessons and after assessed work. Pupils’ ability and willingness to share mistakes in lessons. Use of mistakes by staff. Impact on learning.</td>
<td>3</td>
<td>70% of staff support use with yr11 showing value in time and effort. Some unsure – perhaps due to time and cohort?</td>
<td>‘Before pupils hated having their ’wrong’ work on display, now it is a regular occurrence in class’. ‘We do it as a starter every lesson and they love it’. ‘My ALN class have thoroughly enjoyed this part.’ ‘They have learnt that this is a positive way to learn.’</td>
<td>Mirrors pupil focus group results ALN pupil enjoys the game element in lessons and is able to contribute more now. Increased use in lessons. ALN attainment.</td>
</tr>
</tbody>
</table>
4. **Willingness**

| To use strategies associated with the intervention. | 2, 4 | Majority very confident and support need with learners in school. | ‘I enjoyed trialling this although it was hard to keep up the momentum all the time.’, ‘I have to admit I thought this was similar to what we do already and so I have not done this as much as you.’ ‘I will do this more in the future’. ‘Can we have more training on other similar approaches?’, ‘Can I trial some Growth Mindset strategies with a class next year?’.

Confidence linked to willingness to engage and take part. Need to continue staff training. Support staff in future trials. Accept some staff have negative outcomes.

5. **Resilience and motivation to improve**

| Pupils’ ability to persevere. See long term benefits. Pupils’ attitude to exam. | 2, 3 | Most staff see value in using the approach and with yr11 pupils selected. Some unsure – possibly due to cohort? | ‘Pupils have become better at trying again after a setback.’ ‘Hopefully they will be able to tackle whatever is thrown up in the exam with more confidence now’.

Noted increase in confidence in the face of failure or mistakes. Engaged with the fun aspects. Able to apply these skills in the futures.

| Table 9: Table showing key findings from staff questionnaires (Department A, n=10) and Focus Group (n=10) by theme

**Evaluation**

Post intervention, is it clear that confidence levels have risen as staff begin to see value in the strategy being trialled. The engagement of pupils with the strategy and its application in other areas has evident weighting with staff. Their confidence in delivering the approach is reflected in their ability to adapt it in order to engage learners further highlighting the worth they clearly place on the use of feedback strategies which focus on making mistakes ‘I grew in confidence and changed how I used the strategy … it developed over time and it has many uses.’ (Table
The fact that many staff adapted the approach into a game was an unexpected outcome but a successful approach ‘Pupils like to spot and correct the mistakes’. Moving the focus from the teacher’s ‘favourite no’ to a range of mistakes ‘no’s’ enables pupils to take ownership of the task and has evidently increased participation and enjoyment as well as learning. This is supported by comments such as ‘They like to see other pupils have the same struggles and learn from how we correct them’ and ‘They have learnt that this is a positive way to learn.’ (Table 9). This reflects pupil voice as shown in Figure 5 above. Staff in Department A have clearly taken part in this study in a positive manner and participation has been sustained as they see the benefits to pupils. The way in which staff have adapted the use of trailed approaches has led to a clear increase in how staff perceive pupils’ attitudes to English lessons as well as their ability to be resilient and positive in their response to mistakes or failure. Higher levels of engagement and comments relating to enjoyment made by class teachers certainly supports this. Reflecting the findings from the pupil questionnaire and focus group (Table 6), staff have commented on pupils’ reluctance to share mistakes pre-intervention and noted its impact in the classroom ‘now it is a regular occurrence in class’ (Table 9). This willingness to take part in this trial and see value in its merits as evidenced in the staff questionnaire (Table 7) is also exemplified by these comments and by the level of positivity shown in the staff focus group remarks (Table 8). Staff also acknowledge their role and the need to increase their use of the strategy in order to improve pupil engagement and benefit ‘We do it as a starter every lesson and they love it’. This further supports the findings from the pupil focus group (Table 5 and Table 6) which showed that pupil confidence, attitude to failure and pupil resilience were directly linked to the level of input and willingness shown by the teacher. Staff are also aware of the impact which a lack of enthusiasm may have had and admit that when enthusiasm has diminished so too has impact ‘it was hard to keep up the momentum all the time.’, ‘I have to admit I thought this was similar to what we do already and so I have not done this as much as
you.’. This clearly supports the comments made by female teacher 4 in the focus group (Table 8) outlined earlier which suggested a lack of willingness associated to a lack of support for what she perceived to be a similar technique to ones already in existence. On the other hand, there is evidently great worth attributed to an approach to feedback focused on mistakes shown via the request from one teacher to ‘have further training in other areas’ and the request from another to conduct research of their own (Table 9).

Interestingly, the comments staff have made regarding the impact on pupils with Additional Learning Needs mirrors the data produced on attainment (RQ1). Pupils with ALN have clearly benefitted from this approach to feedback, ‘My ALN class have thoroughly enjoyed this part’. The level of positivity gauged from the pupil focus group (Table 5) is noted by staff also ‘The target group have enjoyed being a part of a study/project’ and staff clearly feel pupil engagement and positivity increases the more pupils are involved in the process ‘Knowing the theory behind what we were doing helped to inspire pupils’ (Table 9). The value staff place on the use of a feedback strategy which focused on mistakes is further heightened through staff’s acknowledgement of its impact on pupil resilience and their attitude to failure. It is most pleasing to see the comments made by pupils (Table 5 and 6) mirrored by staff ‘Pupils have become better at trying again after a setback.’ ‘Hopefully they will be able to tackle whatever is thrown up in the exam with more confidence now.’ (Table 9).
Possible limitations- role of the leader as researcher

This data is pleasing and the findings from the staff focus group and questionnaire which correlate with that obtained from analysis of pupils’ views certainly gives further weight to this research. Staff support and willingness has clearly paid a key role in the success of this research in terms of qualitative data. The role of the teacher must not be ignored here. Given that responses were from staff who were not conducting this research themselves adds further weight in to the reliability of my findings; they cannot be considered biased in their responses or approach and indeed their honesty is somewhat reflected in the comments made by female teacher 4. That being said, I do acknowledge the influence which the researcher plays in the outcome of this process. As Subject Leader for Department A and teacher involved in the study, I was in attendance but did not take part in the staff focus group discussions for reasons relating to bias. However, given my capacity as Subject Leader and researcher I may have had an influence on the responses given. I do not feel this has negatively impacted the study, however, as I believe I have an open and transparent relationship with my colleagues who do not shy away from telling it as it is. This being said, I must acknowledge the influence my presence may have had.
Chapter 5: Conclusions and recommendations for the future

Findings from both staff and pupil qualitative data suggest a positive impact as a result of the feedback strategy trialled as part of this research. Pupils and staff have responded in a positive way and shown great willingness to try something different and new as shown by both their questionnaire and focus group responses. This is essential to the success of any project or research. Pupils have clearly enjoyed the introduction of this teaching tool to lessons and have commented on the ability to transfer the skills learnt to other areas of learning which bodes well for future trials in this area. Staff clearly see the worth in fostering and developing these skills as demonstrated by the level of willingness shown and time dedicated to trialling the initiative at an already busy time of year (Autumn term) with a crucial examination year group (RQ3). Most pleasing are the results regarding a change in attitude to failure and resilience as indicated by both pupil and staff focus groups and comments and the impact that this has had on pupil confidence as a result (RQ2). This is a clear focus for the development of a growth mindset as outlined in the aims of this project. Indeed, as Dweck and her colleagues confirm ‘[these] non-cognitive factors can matter even more than cognitive factors for student’s academic performance’ (Dweck et al, 2014, p. 2). In fact their research clearly states that ‘interventions and initiatives that target these psychological factors can have transformative effects of students’ experience and achievement in school’ (cited Rustin, 2016, p1) and they go one step further to suggest that ‘these critical processes could change academic outcomes for the better’ (p.14). It is most pleasing that this study reflects this theory and echo these areas as important themes and areas for development and research for the future.
What has also become apparent through this is the need to have a supportive staff who are prepared to drive and foster a culture of learning which supports the theory behind the strategies used in the classroom. ‘Developing knowledge of the ways teachers influence student mindset is crucial for leveraging the many benefits of growth mindset for students.’ (Sun, 2015, p. 12).

As such, “teachers need to be encouraged to be educational leaders” (Fuller, 2001, p.11). This echoes the findings from the report ‘Character Nation’ report published by Demos which concluded that ‘Character building schools took its development seriously, making it a specific responsibility for a senior member of staff and often adopting a whole-school ethos’ (TES, 2015c).

As such it is also vitally important that leaders in schools take note of staff views when implementing any new teaching and learning tool; offer training and guidance where needed and are also prepared to accept that some staff may not wholly support a tool or approach they feel is too similar to what they already do. “Resilient learners can't exist without resilient teachers” (Fuller, 2001, p. 11). Leaders must be ready to present the data to support any new plan but also be ready to accept a lack of participation or willing in any future trial. It is, I would suggest, better to know who is behind an initiative and ensure they are involved in small scale projects in the future rather than rush to trial any successful research on too large a scale.

The impact which this trial has had on attainment (RQ1) is not as easy to assess given the number of external influences which I feel could have impacted on this data. While, the reasons for choosing to use a year 11 examination group for this research are clearly outlined in the aims of this document, I do acknowledge that it was always going to be hard to pinpoint the success of one initiative over many used at such an important time in a pupil’s academic career. It was perhaps a lot to ask of one tool implemented over a short period of time. As such, I would suggest trialling the same strategies with pupils lower down in school and over a longer period of time in order to evaluate the impact it as on attainment more thoroughly. It would be
most interesting to see how a year 7 pupil (or group of pupils) responds to the same lessons and approaches used in this trial and the impact which this may have on their attainment (both short and long term). Piaget’s theory which asserts that formal operational stages of cognitive development occur around age 12 (Flavell, 1963) would certainly support this approach. Furthermore, the findings from the new test for mindset from September 2016 to be conducted in 100 primary schools in England will prove interesting reading. The study, entitled Changing Mindsets, will test the effectiveness of teaching a growth mindset using videos and quizzes developed by education company Positive Edge in year 6 classrooms, while psychologists will train teachers for one day. Professor Hoskins, who is leading the trial, claims the study will look at what he calls “learning behaviour” as well as attainment, meaning how children manage themselves and whether they learn from mistakes (TES, 2015a).

What the data does suggest, however, is a significantly positive impact on the both the results and the well-being of the pupil with Additional Learning Needs who was part of Sample A and Class A in this trial. This pupil achieved a C grade in the GCSE English Language examination post intervention and showed increased levels of confidence in English and in the face of failure through her comments in the pupil focus group. Given than the sample chosen for this study was a random one and that this was the only ALN pupil in Class A, these results are not statistically significant however do suggest that this would be an interesting area to explore in the future.

In order to test the findings of this project and work towards establishing a culture of teaching and learning based on the strategies trialled here, I would recommend the following steps for all further small scale research projects in this area:
1. Conduc proficient staff training in the theory behind growth mindset related teaching practices and share this with pupils prior to any intervention taking place.

2. Develop more ‘experts’ willing to test theories in order to address bias and increase validity of data.

3. Offer continuing Professional Development, training and support for staff.

4. Conduct small scale trials with pre-GCSE year group(s) in order to compare and assess the impact and findings within this project.

5. Utilise staff who are supportive of and confident in the use of these teaching and learning tools but do not ignore the findings of those who are critical or sceptical as they may highlight future areas for exploration.

6. Conduct further small scale research of these strategies with pupils with Additional Learning Needs in order to tests the results yielded from this study.

I would not recommend a large scale research in this area until both staff and pupils are adept at using the strategies trialled in this project.

In summation, I would suggest that this study has succeeded in providing evidence which supports the need to develop a culture of teaching and learning based on strategies which foster a pupils’ ability to be resilient in the face of challenge and failure. The ‘Favourite No’ strategy trialled has had an impact in all three areas researched: attainment; pupil confidence and the value staff place on such an approach in the classroom. Most significantly it has had a noteworthy impact with regard to pupil confidence, their attitude to failure and their perceived levels of resilience in the build up to their GCSE English Language examination. Staff have seen the value in trialling a feedback strategy based on ‘making mistakes’ and have noted its worth in terms of teaching and learning in the classroom. Perhaps, it goes one step toward our
aim to ‘help each one of them to grow as a capable, healthy, well-rounded individual who can thrive in the face of unknown future challenges’ (Donaldson, 2015, p 7).

I have acknowledged the possible limitations as they have arisen in this study with regard to the pupils involved, the impact of the teacher as researcher and the role of staff in the success of any research which is based in the context of the classroom and have made suggestions on how these could be combatted in any future research.

In conclusion, this research has enhanced my understanding of the role the teacher plays in fostering a growth mindset within the classroom environment in relation to the study of English. By creating a structured programme for the use of a strategy which allowed pupils to share mistakes in a trusting environment, this study has succeeded in raising the profile of such approaches within the context in which I work. I would suggest that this project has provided good evidence for the use of growth mindset related interventions in the classroom and developed successful pedagogical approaches which can be developed further; across the curriculum. I have been encouraged by the positive feedback provided by most of the pupils and staff involved and acknowledge the shortcomings of the project as detailed in my conclusions. While improved attainment has not come as a direct result of this project, I would suggest that the processes which have been trialled will have made a positive impact on the pupils and staff involved and will directly inform future practices for how teachers can help to foster resilient learners in the future.
References


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Markman, W.M. Klein, and J.A. Suhr (EDS.), The handbook of imagination and mental stimulation (pp. 373-394). New York: Psychology Press.


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Tharby, A. (Jan 2016) How to ensure that feedback leads to real learning. Reflecting English [online] Available at https://reflectingenglish.wordpress.com/2016/01/10/how-to-ensure-that-feedback-leads-to-real-learning/#comments (accessed Jan 2016)


Appendix 1: Mini Mock Programme. Teaching outline 1

English Department

Yr 11 English Language Unit 2

Classroom Mock Timetable outline

<table>
<thead>
<tr>
<th>AUTUMN 1</th>
<th>Paper</th>
<th>Task</th>
<th>Marks uploaded</th>
</tr>
</thead>
<tbody>
<tr>
<td>21.09.15</td>
<td>June 2014 HT- Shamwari, FT - Farmers</td>
<td>READING What did ... think and feel..., Search and find</td>
<td>28.09.15</td>
</tr>
<tr>
<td>05.10.15</td>
<td>June 2012 HT- Foxes, FT- Billy Elliot</td>
<td>READING How... What do you learn...</td>
<td>12.10.15</td>
</tr>
<tr>
<td>19.10.15</td>
<td>June 2104 Both tiers</td>
<td>WRITING Speech</td>
<td>02.11.15</td>
</tr>
</tbody>
</table>

Guidelines:

- All mocks should take place in a teacher allocated lesson in week 2**
- All classes must sit these papers in class in the week assigned
-Mocks should be done in exam conditions
- Pupils should be given a maximum of 20 min (excl. extra time pupils) to complete their written response in order to develop writing under exam conditions
- Staff should mark these as a whole class exercise and then review peer and self assessment
- All resources including mark schemes and exemplar material will be made available to staff via Google Drive and should be shared with pupils after the mock
- Sample material for use prior to sitting the mock will be uploaded to Google Drive.
Appendix 2: Pupil Questionnaire

Yr 11 pupil questionnaire

Please tick the answer which best suits your opinion

1. I feel confident about sitting the reading section of the January Unit 2 exam
   
<table>
<thead>
<tr>
<th>Agree</th>
<th>Not sure</th>
<th>Disagree</th>
</tr>
</thead>
</table>

2. I understand why we sit mini mocks in English
   
<table>
<thead>
<tr>
<th>Agree</th>
<th>Not sure</th>
<th>Disagree</th>
</tr>
</thead>
</table>

3. I don’t think I can do English
   
<table>
<thead>
<tr>
<th>Agree</th>
<th>Not sure</th>
<th>Disagree</th>
</tr>
</thead>
</table>

4. When I don’t get my target grade on a reading task I feel demotivated
   
<table>
<thead>
<tr>
<th>Agree</th>
<th>Not sure</th>
<th>Disagree</th>
</tr>
</thead>
</table>

5. When I make a mistake on a reading task in English I don’t mind
   
<table>
<thead>
<tr>
<th>Agree</th>
<th>Not sure</th>
<th>Disagree</th>
</tr>
</thead>
</table>

6. My teacher shows us work with mistakes and we look at it as a class
   
<table>
<thead>
<tr>
<th>Agree</th>
<th>Not sure</th>
<th>Disagree</th>
</tr>
</thead>
</table>

7. I don’t mind my work being shown to the class when it has a mistake
   
<table>
<thead>
<tr>
<th>Agree</th>
<th>Not sure</th>
<th>Disagree</th>
</tr>
</thead>
</table>
Appendix 3: Staff Questionnaire

Staff post presentation questionnaire
Growth Mindsets and trialling a structured feedback strategy with Year 11 English classes.

After today’s workshop please complete this questionnaire based on your reaction to our trialled approach.

Select only one answer by placing a tick next to the answer that represents your views

1. How convinced are you about academic mindsets?
   Need convincing it can be useful
   Pretty sure it can be useful
   Know it is useful

2. How worthwhile do you think developing growth mindsets are for our year 11 learners?
   Not worthwhile for our learners
   Can see some benefits for our learners
   Very worthwhile for our learners

3. How appropriate do you think the ‘favourite no’ feedback structure is for our year 11 learners?
   Not appropriate for our learners?
   Can see some benefits for our learners?
   Very appropriate for our learners?

4. How confident do you feel about trialling this approach?
   Not confident at all so need some more training
   Pretty confident but would like some support
   Confident and am happy to proceed

Any other comments:
Appendix 4: Growth Mindset Lesson Plan

English Department

Introducing a growth mindset to Year 11

Lesson guide

LO: Exploring how we learn and how we react when we get something wrong

All hyperlinks are on the PPT – hover the mouse over the image

Starter

As a class reflect on the mini mock programme to date. How have they found the process? What benefits can they see? What has worked well? What did they find challenging?

Pupils to answer the last question on their own in 3 sentences reflecting on the mini mock programme.

Outline this half term’s activities briefly in terms of when their mock is, what writing tasks will be covered and when their mini mock 4 is.

Development

1. Conduct class discussion around mistakes: Use these questions as prompts if needed.

   • How do you feel when you make a mistake? Why?
   • How do you think other people see you when you make a mistake?
   • Have you ever discovered something new from making a mistake?
   • Have you ever felt proud of making a mistake?
   • Has a mistake ever made you think more deeply about a problem? (You can start by talking about a non-academic setting, and then talk about how the lessons apply to academics.)

L.O.
EXPLORING HOW WE LEARN AND HOW WE REACT WHEN WE GET SOMETHING WRONG

SO THAT
We can cope with the exam in January
## Appendix 5: Intervention: teaching outline 2

### AUTUMN 2

<table>
<thead>
<tr>
<th>Wb.</th>
<th>Reading</th>
<th>Writing</th>
<th>Marks uploaded</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SUGGESTED HOMEWORK/Study support</strong></td>
<td><strong>READING</strong>&lt;br&gt;2012 <em>Specimen paper Q1-4</em>&lt;br&gt;(staff to conduct ‘favourite no’ activity on Q3)</td>
<td>Complete/ resit/ plan/ adapt one of the tasks above</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>23.11.15</strong></td>
<td>UNIT 2 MOCK EXAM AM ONLY&lt;br&gt; JAN 14</td>
<td>Jan 2014 full paper Resources and mark schemes on Google Drive</td>
<td>Question by question (MARK IT LIKE THIS TOO)&lt;br&gt;Reading by end of 27.11.15&lt;br&gt;Writing by 1.12.15</td>
</tr>
<tr>
<td><strong>24.11.15-27.11.15</strong></td>
<td>Staff to conduct ‘favourite no’ activity on Q3 from homework tasks</td>
<td><strong>WRITING COVER:-</strong>&lt;br&gt;<strong>Letters</strong>&lt;br&gt;<strong>Formal</strong>&lt;br&gt;A company that runs play-schemes for 3-10 year olds is recruiting. Write your letter of application</td>
<td>Upload formal letter writing mark to shared area by 4.12.15 for tracking</td>
</tr>
<tr>
<td><strong>30.11.15</strong>&lt;br&gt;(Yr11 mock exams still taking place)</td>
<td>Mock feedback&lt;br&gt;‘Favourite no’ activities on q1-3 reading over the week&lt;br&gt;Trial ‘Favourite no’ with writing task as a 5 minute starter/settler task</td>
<td><strong>WRITING REVISE:</strong>&lt;br&gt;Write a <em>speech</em> for school assembly persuading peers to support a chosen charity</td>
<td>Upload marks for speech to shared area by 11.12.15 for tracking</td>
</tr>
<tr>
<td><strong>Wb. 14.12.15 DEPT CAROUSEL</strong>&lt;br&gt;Mini mock 4 resit to be done in Study Support</td>
<td>MON P4&lt;br&gt;KTC, KEL, REV, KMA, MMA, LWO&lt;br&gt;‘Favourite no’ activities</td>
<td><strong>WRITING COVER:</strong>&lt;br&gt;<strong>Leaflets:</strong>&lt;br&gt;Design a leaflet informing year 11 pupils about the the Unit 2 exam in January</td>
<td>Ensure all marks reflect pupil progress and attainment to date by 18.12.15</td>
</tr>
<tr>
<td><strong>SUGGESTED HOMEWORK/Study Support work</strong></td>
<td>KEL revision booklet</td>
<td>KEL revision booklet</td>
<td></td>
</tr>
</tbody>
</table>

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Appendix 6: Ethical consent forms

PARTICIPANT CONSENT FORM

Participant name or Study ID Number:

Title of Project: Building academic tenacity by promoting growth mindsets in English

Name of Researcher: LWO

Participant to complete this section: Please initial each box.

1. I confirm that I have read and understand the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

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

1. I agree to take part in the above study.

If included in the interview stage:

2. I agree to the interview being audio recorded

3. I agree to the interview being video recorded

4. I agree to the use of anonymised quotes in publications

I agree to anonymised photographs of my work being used in this study

Signature of Participant

9 November 2015

Name of person taking consent: Worrall

Date Oct 15
University Ethics Application Form

Cardiff Met staff and students are obliged to complete this form in order that the ethics implications of that project may be considered.

If the project requires ethics approval from an external agency (e.g., NHS), you will not need to seek additional ethics approval from Cardiff Met. You should however complete Part One of this form and attach a copy of your ethics letter(s) of approval in order that your School has a record of the project.

The document Guidelines for obtaining ethics approval will help you complete this form. It is available from the Cardiff Met website. The School or Unit in which you are based may also have produced some guidance documents, please consult your supervisor or School Ethics Coordinator.

Once you have completed the form, sign the declaration and forward to the appropriate person(s) in your School or Unit.

PLEASE NOTE:
Participant recruitment or data collection MUST NOT commence until ethics approval has been obtained.

PART ONE

<table>
<thead>
<tr>
<th>Name of applicant:</th>
<th>Leigh Worrall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor (if student project):</td>
<td>Sharne Watkins</td>
</tr>
<tr>
<td>School / Unit:</td>
<td>Bassaleg School</td>
</tr>
<tr>
<td>Student number (if applicable):</td>
<td>St04000197</td>
</tr>
<tr>
<td>Programme enrolled on (if applicable):</td>
<td>MA Education Management and Leadership</td>
</tr>
<tr>
<td>Project Title:</td>
<td>Building academic tenacity – promoting growth minsets in feedback approaches to English Language Unit 2 reading exam preparation</td>
</tr>
<tr>
<td>Expected start date of data collection:</td>
<td>08/11/2015</td>
</tr>
<tr>
<td>Approximate duration of data collection:</td>
<td>2 months</td>
</tr>
<tr>
<td>Funding Body (if applicable):</td>
<td>Click here to enter text.</td>
</tr>
<tr>
<td>Other researcher(s) working on the project:</td>
<td>If your collaborators are external to Cardiff Met, include details of the organisation they represent.</td>
</tr>
<tr>
<td>Will the study involve NHS patients or staff?</td>
<td>If yes, attach a copy of your NHS application to this form</td>
</tr>
<tr>
<td>Will the study involve taking samples of human origin from participants?</td>
<td>No</td>
</tr>
</tbody>
</table>

Does your project fall entirely within one of the following categories:
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper based, involving only documents in the public domain</td>
<td>Yes</td>
</tr>
<tr>
<td>Laboratory based, not involving human participants or human tissue samples</td>
<td>No</td>
</tr>
<tr>
<td>Practice based not involving human participants (e.g., curatorial, practice audit)</td>
<td>No</td>
</tr>
<tr>
<td>Compulsory projects in professional practice (e.g., Initial Teacher Education)</td>
<td>No</td>
</tr>
<tr>
<td>A project for which external approval has been obtained (e.g., NHS)</td>
<td>No</td>
</tr>
</tbody>
</table>

If you have answered YES to any of these questions, expand on your answer in the non-technical summary. No further information regarding your project is required. If you have answered NO to all of these questions, you must complete Part 2 of this form.

In no more than 150 words, give a non-technical summary of the project:

The project will seek to test whether the use of a structured feedback strategy in relation to English non-fiction reading assessments improves attainment as well as pupil confidence. It will seek to trial this strategy with the view to using it as good practice on a Departmental and eventually whole school living.

I will analyse mock exam and final exam results, pupil books, teacher questionnaires and pupil interviews to assess the impact of the study.

The study will involve action research using a whole Year 11 cohort. It will take place over the course of a half term in the 2015-16 academic year.

**DECLARATION:**

I confirm that this project conforms with the Cardiff Met Research Governance Framework.

Signature of the applicant: L Worrall  
Date: 2.11.15

**FOR STUDENT PROJECTS ONLY**

Name of supervisor: Sharne Watkins  
Date:

Signature of supervisor:

**Research Ethics Committee use only**

Decision reached:  
- Project approved  
- Project approved in principle  
- Decision deferred  
- Project not approved  
- Project rejected

Project reference number: Click here to enter text.
PART TWO

A RESEARCH DESIGN

<table>
<thead>
<tr>
<th>A1 Will you be using an approved protocol in your project?</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>A2 If yes, please state the name and code of the approved protocol to be used</td>
<td>Click here to enter text.</td>
</tr>
<tr>
<td>A3 Describe the research design to be used in your project</td>
<td>Action Research involving current yr11 cohort of 256 pupils</td>
</tr>
<tr>
<td></td>
<td>Methods:</td>
</tr>
<tr>
<td></td>
<td>Data analysis of results</td>
</tr>
<tr>
<td></td>
<td>Pupil questionnaires pre and post strategy and pre exam in January</td>
</tr>
<tr>
<td></td>
<td>Teacher questionnaires pre teaching and interviews post teaching but prior to the exam results in March</td>
</tr>
<tr>
<td>A4 Will the project involve deceptive or covert research?</td>
<td>No</td>
</tr>
<tr>
<td>A5 If yes, give a rationale for the use of deceptive or covert research</td>
<td>Click here to enter text.</td>
</tr>
<tr>
<td>A6 Will the project have security sensitive implications?</td>
<td>No</td>
</tr>
<tr>
<td>A7 If yes, please explain what they are and the measures that are proposed to address them</td>
<td>Click here to enter text.</td>
</tr>
</tbody>
</table>

B PREVIOUS EXPERIENCE

<table>
<thead>
<tr>
<th>B1 What previous experience of research involving human participants relevant to this project do you have?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masters level research projects</td>
</tr>
<tr>
<td>Role as Subject Leader</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B2 Student project only</th>
</tr>
</thead>
<tbody>
<tr>
<td>What previous experience of research involving human participants relevant to this project does your supervisor have?</td>
</tr>
<tr>
<td>Click here to enter text.</td>
</tr>
</tbody>
</table>

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1 An Approved Protocol is one which has been approved by Cardiff Met to be used under supervision of designated members of staff; a list of approved protocols can be found on the Cardiff Met website here
<table>
<thead>
<tr>
<th>C POTENTIAL RISKS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>C1 What potential risks do you foresee?</strong></td>
</tr>
<tr>
<td>Include details of risks to the participants, the researcher and the project as a whole.</td>
</tr>
<tr>
<td><strong>C2 How will you deal with the potential risks?</strong></td>
</tr>
<tr>
<td>Click here to enter text.</td>
</tr>
</tbody>
</table>

When submitting your application you **MUST** attach a copy of the following:
- All information sheets
- Consent/assent form(s)

An exemplar information sheet and participant consent form are available from the Research section of the Cardiff Met website.