

Fault Lines: To what extent can interventions which aim to change mindsets of tutors increase learner outcomes in General Certificate of Secondary Education (GCSE) resits?

Advancing Pedagogy in Post Compulsory Education and Training

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Abstract

Government strategy dictates that 16 – 19 learners who do not achieved a Grade 4 at GCSE English and maths are required to repeatedly resit examinations until they pass. However, already low pass rates for learners are already in decline. In Summer 2019 national resit results fell further (from 23.7% in 2018 to 22.3% in 2019). For many learners this is a culmination of personal and humiliating experiences of years of failure or being told that they are of low *ability* in maths and English (as opposed to that they are currently *underachieving* in English and maths). Tutors in these subjects, find their learners faced with a self-fulfilling prophecy of repeated failure and a growing sense of defeat (Hargreaves 1967). An unintended consequence of this is that tutors' experiences of repeated failure can drain their energies and narrow their sense of possibilities for their learners which can in turn result in implicit bias (Devine et al 2012).

Dweck (2017) and Boaler (2015) suggest strategies to change learner mindsets, therefore we can deduce that language used by tutors is key as it impacts directly upon the learners. Tutors often ignore the stages of grief that learners feel when they 'fail' in their learning (Kubler-Ross 2014) favouring instead, a push towards concentrating on possible future success. Using the November 2019 resit results as an initial trial, tutors in the study employed Emotion Coaching techniques (Gottman 1997). This involved validating and empathising with learners rather than superficially glossing over their real and recent negative experiences of being branded as a 'failure'.

Part A What I set out to do and Why

In the midst of the COVID-19 pandemic in the UK in August 2020 the British Conservative Government as well as other political administrations across the UK were required to enact policy U-Turns in the face of mounting public anger against the use of an algorithm to moderate A-Level and GCSE examination results based upon institutional rather than individual student performance. High levels of student anxiety and a deep and deepening public sense of anger and injustice made the headlines across all forms of media. If ever there was an example of the high anxiety and high stakes of A-Level and GCSE examinations ... this is it!

To step back a little from the current political and social climate surrounding controversies in the assessment of A-Level and GCSE examinations and accusations of in-built bias in the system in favour of middle-class, post code privilege, in the interests of simplicity, it might be helpful to turn the focus back upon less turbulent political but nonetheless controversial and problematic times prior to the impact of COVID-19 upon the education system in the UK.

In Summer 2019 national resit results for GCSE maths and English fell further (from 23.7% in 2018 to 22.3% in 2019) despite the national resit strategy for all 16-19 learners being in its third year. This study is conducted in a Further Education College in Hertfordshire in the maths and English department, where results have

remained stubbornly around or just below national average for GCSE pass rates, even though a continuous focus as a whole College target has been on improving these results. As a GCSE maths teacher I became interested in how to change the mindsets of learners while fighting an insidious cultural apathy that it is “ok” to be bad at maths. Dweck (2017) and Boaler (2016) suggest a number of strategies to change learner mindsets. However in the context of my own experience I developed a growing sense that tutor mindsets were also an area worthy of further investigation. What troubled me was the question, if tutors’ mindsets are fixed, how can we expect learner attitudes to change? I started to consider how we as tutors, sometimes perpetuate the problem, as William states, the teacher is the most important variable in a learner’s learning experience. As a team we have found our learners faced with a self-fulfilling prophecy of repeated failure and a growing sense of defeat (Hargreaves 1967). This problem is compounded in that we only have a short length of time to turn over 11 years of previous negative experiences of learning English and maths in compulsory education into positive educational outcomes for students in Further Education. By starting to look at what needed to change in the mindset of learners, we started to consider what we needed to do to support this. We found that as tutors we often ignore the stages of grief that learners feel when they fail (Kubler-Ross 2014). The intuitive response to learners often humiliating and personally diminishing experiences of failure for tutors is to ignore these negative experiences in order to concentrate on possible future success. A unintended consequence of these well-intentioned responses is therefore that the language tutors use is quite dismissive of their experiences.

This study uses the November 2019 GCSE resit results as its primary focus. The purpose of this study is to explore the language used by tutors in their immediate and subsequent interactions with learners following their experiences of failing GCSE examinations and whether this could be improved through the adoption of Emotion Coaching techniques (Gottman 1997). This approach involves validating and empathising with learners rather than glossing over the event to determine whether this would lead to positive learner behaviour. From these discussions it became apparent that tutor resilience was often tested in these difficult situations. This suggested that levels of tutor resilience could be a factor in contributing to negative reactions from learners.

Literature review

The concept of Mindset is an important aspect of this project. National Numeracy (NN) - an independent UK based charity which was established to help raise low levels of numeracy among both adults and children and to promote the importance of everyday maths skills - found that it is culturally acceptable in the UK to have negative attitudes towards learning maths. NN note how other life essential skills are not talked about in this way. However we hear children and adults say, ‘I can’t do maths’, so often that it now does not seem a strange thing to say (Kowsun, 2008). Maths is often seen as the remit of ‘mad scientists’, ‘nerdy’ boys and girls, and for the socially inept (Epstein et al, 2010). We talk about maths as though it is a genetic

gift possessed only by a rare few and inaccessible to the general public. On a personal level, as a maths teacher, it has been a common cry from parents “I was never any good at maths at school”. In this way, this negative attitude towards maths is normalised. As Boaler (2016) states “The fixed mindsets that many people hold about mathematics often combine with other negative beliefs about mathematics to a devastating effect” In the context of this study it therefore became important to look at how this negative mindset towards maths could be changed in ways which would encourage learners to be more open to a view that they could be successful at maths.

Since Carol Dweck’s original publication in 2006, many educators have looked towards Growth Mindset as a panacea for improving learner outcomes. According to the Times Education Supplement (TES) Growth mindset is a theory centred around the belief that intelligence and learning are not fixed at birth but can be developed and improved. If someone has a growth mindset, they are considered to have a positive attitude towards learning as well as a confidence in their ability to progress and achieve.

Many educators have taken the concept of the Fixed and Growth mindset to see if they can encourage and support learners to develop a growth mindset. However, the focus has tended to be on training teachers to develop teaching Growth Mindset to learners without focusing on the mindset of teachers themselves. This has led to a fundamental and widespread misunderstanding of Dweck’s work culminating in a study by the Education Endowment Foundation (EEF) in 2019. The EEF found that primary school pupils who received a mindset intervention did not make any additional progress in English or maths. They did identify some possible causes for this. Firstly, the assumption that teachers were already sufficiently aware of growth mindset to put in into practice, whether or not they received the training. Secondly, that growth mindset strategies take longer to embed.

Dweck’s own definition is slightly different to many seen in schools which, from my own observations being involved with other settings, focus on the power of “yet”. According to Dweck (2017) “Mindsets are just beliefs. They are powerful beliefs, but they’re something in your mind, and you can change your mind”. Dweck goes further to explain why her theory has been misunderstood. There has been a distinction made between ability and effort to the point where ability has been discarded and there is a belief that only effort is praised, regardless of the amount of effort invested by the learner in their learning. Dweck says she has “the fear that the mindset concept will be used to make kids feel good when they’re not learning”. She states, “You don’t get a growth mindset by proclamation. You move toward it on a journey.”

Boaler, whilst a strong supporter of the Growth Mindset argues, “I cannot emphasize too strongly that by giving learners growth mindset messages will not help them unless we also show them that math is a growth subject” and therefore the fate of the growth mindset message is in the hands of the tutor. However, learners by the time they reach Further Education have developed a profound fear of making mistakes in maths. According to Dweck this could manifest itself in learners with a

fixed mindset who see mistakes as a source of terror and a threat. So in order not to make a mistake they avoid the work altogether. What then occurs in a classroom is that the learner's experiences only serve to further compound their misunderstandings.

Boaler continues, "But it is even more important to communicate positive beliefs and expectations to learners who are slow, appear unmotivated or struggle." Therefore, the role of the tutor is imperative but we have to consider how hard is it for a tutor to communicate positivity and have high expectations when they know that the majority will fail and are often faced with negative attitudes?

Devine et al (2012) studied implicit bias with regard to race and whether a habit breaking intervention could reduce tutor bias. Over a 12-week study they showed "dramatic reductions" in implicit race bias. This leads to me to ask are tutors biased in how they believe their learners will achieve based on past outcomes and possible future success? The study suggests that breaking the habit of implicit bias requires understanding what activates the bias and how to replace any responses which may be biased. Whilst this project is not about race, this again links to the mindset of the tutor. The thrust of the argument here is that changing the mindset of the tutor and any conscious or unconscious 'bias' they may have, whether about learners making mistakes or their expectations of learners, may bring about a change in tutor behaviour which should then result in a change in learner behaviour. The training given by Devine et al (2012) provides a list of strategies which were adapted for use by teachers in their study. The findings showed that the use of these strategies resulted in reduced implicit bias and that tutors were more aware of their own bias. It is important to note that the study suggests that education and training is further required in understanding dimensions and stages in changing implicit bias. It also suggests that there is no single "magic bullet". This is discussed in some detail below. However, a meta-analysis conducted by Forsher et al (2009) which included Devine's work, found little evidence that changes in implicit measures translated into changes in explicit measures and behaviour.

To understand bias there has to be some understanding of how learners feel. The learners who are retaking maths have failed according to the UK grading system. Therefore, there needs to be some understanding of their current state of mind. The Kubler- Ross stages of grief gives an approach which includes anticipatory grief which may have been felt by many learners before they even sat their exam. The model is often used as a change model despite having its original purpose was to support patients who had been given a terminal prognosis. This is a clear explanation of emotions and feelings that people go through during change, but is often seen as outdated. Reasons include that the stages are linear, i.e. one event happens after another and the events are finite which is of course not always the case, for example, feelings of grief and/or of failure can last a lifetime. However, a deeper understanding of this process is clearly important if tutors are to be able to communicate more authentically with learners who have had recent experiences of failure in relation to GCSE examinations.

Methodology

I work within an FE College in North Hertfordshire which is based on three sites. There are approximately 500 GCSE maths learners. The College also supports apprentices and traineeships country-wide, a number of whom are studying Functional Skills. My project covered working with two different groups of Tutors. As a Professional Development Lead (PDL) I decided to use this project to structure changing mindsets in maths within the College within a Talking Teacher Peer Group (TTPG). The research population consisted of a team of 15 tutors most of whom were based in Apprenticeships and Traineeships and were nationally based.

The TTPG proved to be difficult to administer due to the remote nature of the tutors, many of whom were part time (as am I). This led to issues with tutor buy-in and a change in focus to maths in general rather than GCSE. Apart from one meeting, with very low attendance, discussions were held on email or via Teams chat. This did not prove successful.

The Maths, English and ESOL department at the college consists of 18 members of staff. We have been using Creative Inquiry Groups (CIG) fortnightly, to briefly discuss different topics to improve teaching and learning. Within this structure I led an Inquiry in January 2020 which was tabled as changing learner mindsets to improve teaching and learning using the Kubler-Ross Stages of Grief Model as a starting point. Further small group meetings were held and ideas for implementation were identified, tested and reviewed. It was through these groups that support for Emotion Coaching emerged and this was trialled by a number of tutors following the November resit results after which tutor interviews and small group discussions were held where a focus was placed on developing the language and vocabulary used by tutors. The subsequent closure of the college in March 2020 due to the COVID-19 lockdown prevented any further trials from taking place.

In September 2019, 52 learners across the curriculum areas: Sport and Public Services and Business and Travel were asked to complete a maths anxiety questionnaire (Appendix A). This was designed to measure their anxiety over a range of issues in maths. Unfortunately, due to COVID-19, the move to online learning and the subsequent suspension of GCSE teaching, a second questionnaire has not been completed and therefore, although this gives an indication of where they believe they were at the beginning of the course I am unable to have a quantitative measure of any progress.

I also developed a display in the teaching classroom to reinforce the messages as a tutor I was trying to impart to the learners (Appendix B). These messages were surrounded by mathematical formulae frequently used by learners so that they would be constantly in focus.

The Intervention Plan

Item	Dates		
Maths Anxiety Questionnaire Completion	September 2019	Easter 2020	
PDL Meeting	Monthly starting November 2019	January 2020 Presentation of Findings at Staff Development Day (Appendix C)	
CIG Meeting	January 2020	February 2020	Easter 2020
Trials	January – Easter 2020	Review February 2020	Review May 2020
Tutor Interviews	January – Easter 2020		

A number of events were curtailed due to lack of tutor buy-in and geographic remoteness of the PDL team. Many had been told that they were to take part and therefore were not volunteers. This affected their buy-in to the project as they did not develop their own sense of ownership of the research. As meetings could not be held physically, it was easily a case of, 'out of sight, out of mind', despite an email trail and the use of Microsoft Teams. This resulted in the majority of trials being carried out with the CIG as part of time scheduled for Department meetings .

The COVID-19 has clearly had a major influencing factor on this project. The college closed for face-to face-learning on 20th March 2020, by which point a number of learners had already voted with their feet and for the last few weeks attendance had reduced. The cancellation of GCSE exams confirmed by OfQual on 3rd April 2020 meant that all live GCSE teaching became obsolete and many learners no longer attended online sessions and these were eventually suspended by the College.

As there were no learners to continue trialling with, a second stage of the trial had to be suspended.

Ethical Considerations

This research is conducted in accordance with the latest BERA (2018) guidelines¹⁴.

Tutors are informed that records of discussions and emails will be used as research for this MA report (BERA (2018) para. 28) and were given the option to opt out of the research (BERA (2018) paras. 27,28). A copy of the final MA report will be available for colleagues who were involved in the research. Informed consent is gained for use of the anxiety questionnaire results of learners, although these are anonymised by group and by person (BERA (2018) paras. 28,40). Any safeguarding issues raised by the anxiety questionnaires are dealt with following College safeguarding procedures. Consent has been gained from the institution involved. All participants are aware of their right to withdraw from the research at any point (BERA (2018) para. 31).

A control group of learners has not been chosen so there will be no adverse effect through bias on learner outcomes (BERA (2018) para. 36).

Although the study has been funded by the Education and Training Foundation (ETF), the Foundation have in no way influenced the conduct of the research or its outcomes.

Part B What I found out and recommend

Analysis

Society often tells us that you are born with or without a maths brain (Boaler, 2017) and this can often be perpetuated unwittingly by tutors. Therefore, changing the mindset of learners and tutors is key. What became apparent in the course in this research is that the well-intentioned efforts of tutors to try and gloss over previous failings in order to make learners feel better, can then have the opposite effect of making learners feel that no-one understands what they are going through. This can build up walls between the tutor and learner which in turn prohibits progress as the Department for Education (DfE) found when they stated that, "The quality and nature of the learner teacher relationship was central to nearly all college delivery" (Department for Education, 2017).

Boaler highlights 4 common myths about maths, one of which was regarding making mistakes. For example, when I asked a learner why they were not writing notes on their notebook the reply was "I don't want to get this wrong". This is a common response. Dweck's (2017) description of a fixed mindset posits that when learning is safely within the grasp of the learner they thrive, but when things become difficult they can lose interest and use avoidance strategies. This is a common sight in a GCSE resit maths classroom. According to the maths anxiety questionnaire 67% of learners had low to some anxiety regarding making mistakes. While this appears to be low, it did not mirror what was seen in the classroom (Appendix D). Teaching sports classes this year and in conversation with the sports curriculum team there was a belief that the sports learners would relish a competitive response to making mistakes. I changed my language in class from "who wants to share their correct answer" to "who wants to share their wrong answer"; "who thinks they've got this right?" to "who thinks they've got this wrong?" and the sports classes were often quiet. In the Business class, however, this approach worked well and as the term drew on learners reduced the use of "I've probably got this wrong but..." which was still prevalent in the Sports classes. Despite introducing the concept of mistakes in induction and how they help the brain grow (Boaler, 2016) some learners still struggled to accept that mistakes were part of a positive experience, and was taken by them as further proof that they did not "get" maths.

Working with the CIG it became apparent quickly that tutors themselves did not understand the term positive mindset. In a session discussing what it was and how to improve it, the majority of groups focused on how to make the learner "happier" in the classroom and how to remove any struggle. There is then a tendency to wish learners to feel better and this can lead to as Dweck suggests:-

"If I don't learn something quickly I'm not smart.

I shouldn't try drawing anything hard or they'll see I'm no Picasso

I'd better quit studying or they won't think I'm brilliant"

Following a further CPD session, the concept of mindset was better understood and the groups were asked to discuss at a further meeting how to change the mindsets of learners. Fig 1 presents a summary of those discussions.

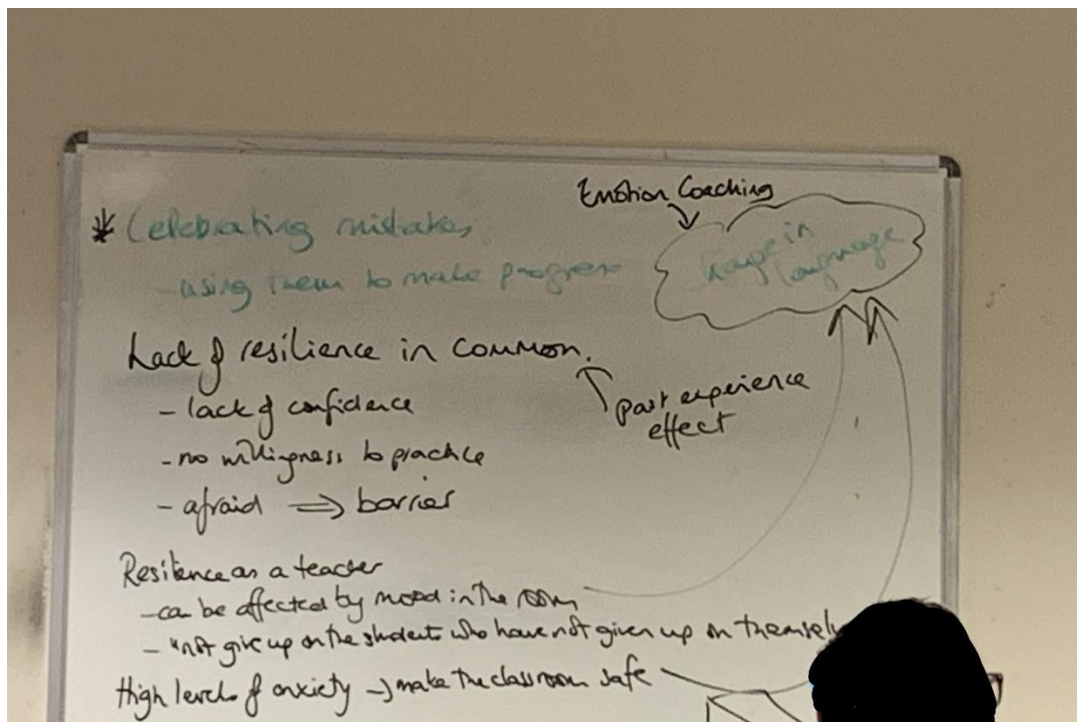
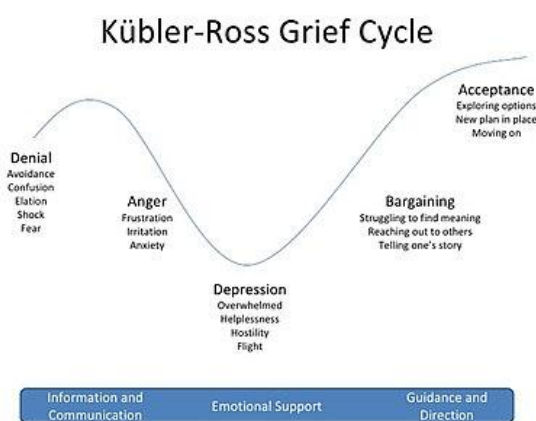


Fig 1

Tutors were then tasked to discuss what they may do differently. Tutors discussed how language may be negative without meaning to, one tutor for example said that they had stopped using the term “maths genius” as it could create a belief that not everyone in the room was. The concept of the grief cycle was further discussed and it was agreed that what was seen in the classroom was closer to Fig 3 than Fig 2.



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Fig 2

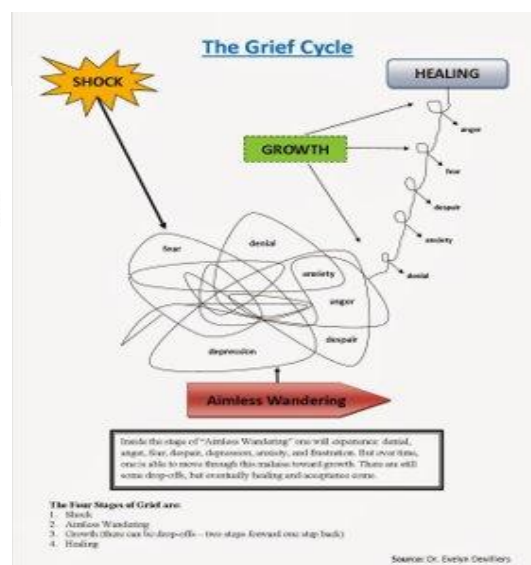


Fig 3

When a tutor asked a seemingly bland question “How do I talk to my learners after their November resit result tomorrow?”, there was a realisation that as tutors we continue trying to make everything happy for learners. This links to the misunderstanding of Dweck’s concept of mindsets and an ignorance/underestimation of the Grief Cycle. By trying to be positive about their failure tutors tend to ignore what the learners are going through with comments which are meant well such as, “You’ll be fine in the Summer”. However this does not factor in the situation that learners do not feel “fine” now. In effect, this well-intended dialogue is serving to reinforce the message that the learner in question cannot do maths. A tutor raised the point that when someone is grieving we do not say, “You have another leg” or “You’ve still got two children” but we very quickly gloss over a learner’s feelings of grief about their GCSE result.

As explained above the tutor group decided to use Emotion Coaching techniques (Gottman 1997) when speaking with learners who had failed their GCSE resit. This technique involves labelling and validating an emotion or feeling. Rather than dismissing how angry and upset learners would be, as tutors we faced their emotions head on, labelling them and stating that it was ok to have these feelings. Learners settled in the classroom more quickly after their November GCSE resit result and attitudes in the lesson were far less combative and continued to be more settled in the following lessons (Appendix E) Whereas in previous cohorts, a poor result had often resulted in learners walking out and refusing to participate in lessons. Tutors also felt more in control and for many the lack of reaction which occurred was a new reaction.

Tutors were open to changing their language and using Emotion Coaching techniques in the classroom. However tutors questioned how this was sometimes possible during what appeared to be encounters with students framed by constant hostility. This then raised the question of whether as tutors, we require resilience training. Also, facing a constant barrage of negativity it is difficult for us as tutors to sometimes find a positive spin, and this then has a negative effect on the language that we use.

Key Findings

My findings showed that with the best intentions, the following tends to occur in the relationship between tutor and learner. (Fig 4)

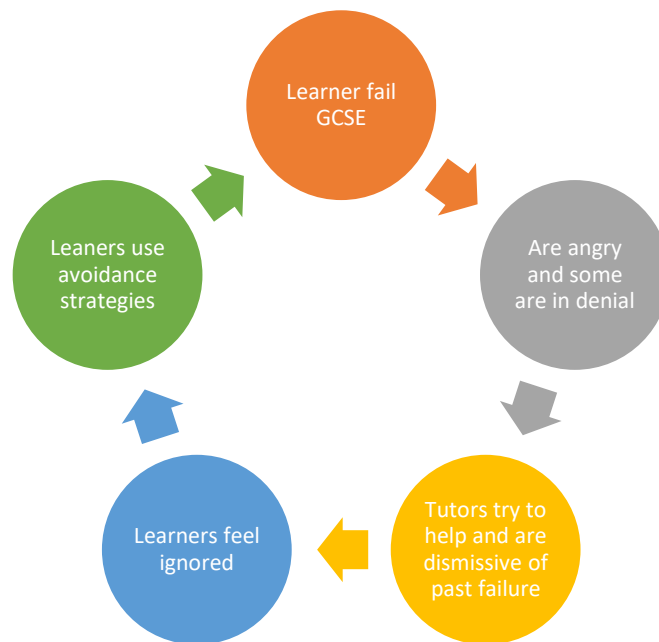


Fig 4

Whilst not making it obvious to tutors that their mindset needed to change, looking at the mindsets of learners changed tutors' approaches. All discussions led back to the language that tutors used and there needed to be a greater understanding of learners feelings and emotions from the beginning of the course. As discussed in the opening section of this assignment, this is even more prevalent during the current pandemic as learners results will be based on centre assessed grades and exam board decisions rather than how they have performed in an exam.

To sum up the argument so far, learners go through a grief cycle following their results and are often angry or in denial for a large portion of their studies. Tutors only have a short time to help them work through the process and ignoring or glossing over these feelings does not cause them to dissipate. Tutors realised that the language they use has a direct effect on learner behaviour and that sometimes the outcome is negative, when the intention was positive.

Tutors saw that with subtle changes the impact could be large. But in order for these changes to become a habit they will need reinforcing and repetition, and therefore they require help and support through CPD. However, there are some limiting factors, such as tutor responses to continual negative behaviour which affects the language and phrases that they use. In order to change the behaviour of learners, the learners themselves need to understand why they are feeling the way they do and to be able to see that this is a journey which can have a positive outcome.

Recommendations

Emerging findings from this study support the following recommendations:-

GCSE Resit Tutors should...

- As part of their pedagogical development have access to the following regular CPD opportunities:-
 - Personal resilience Training
 - GCSE tutors face a constant barrage of negativity, the majority of resit learners do not want to be in these lessons and feel branded as failures. Tutors are faced with consistently negative attitudes from a large number of learners the cohort. They are also in a strange position where the majority of their learners will fail and so often do not experience success themselves. This takes its toll on Tutor resilience.
 - Emotion Coaching Training
 - To be used effectively, tutors need to have proper training to build up their language, vocabulary and the strategies they use in the classroom, so that responses become more honest and able to admit the grief being experienced by learners and therefore more heart felt.
 - Regular time should be allowed in staff meetings to discuss conversations with learners to allow glossaries to be developed to find better ways of saying things in response to learners' experiences of failure and their consequent grief
 - Developing a culture of open and honest discussion will give tutors more confidence to change. By discussing ideas and scenarios with peers tutors can develop language, vocabulary and pedagogical strategies that are right for their setting.

Resit learners

- Include a period for learners to explain how they feel about their current progress, while there are 1:1 sessions for curriculum areas the expanse of content in the maths curriculum makes it difficult to give time to allow maths tutors to meet 1:1 with learners. A 1:1 session after results/major assessments should be considered.
- Include a session on the grief cycle explaining to learners where they might be and shows tutors have an understanding of the experiences and feelings of learners at induction. This will also help learners be aware of their own feelings and deepen their understanding of why they behave in the way they

do. Armed with this information they may make more informed choices about their own behaviour and learn to self-regulate when negative feelings emerge.

Further Investigation

There is much literature on the effect of the negative attitudes teachers upon their learners. However there little has been published about the effect of negative learner attitudes upon tutors.

Further investigation should therefore include the following questions:

- What is the effect of consistent exam failure on tutors?
- What is the effect of negative learner behaviour on tutors?

It must be noted that this was a small-scale study which was interrupted by the COVID-19 pandemic. As learners were unable to sit their exams and revision and resit techniques were unable to be continued, I am unable to comment on the longevity of the outcomes of the techniques described in this study. Also, learners while admitting they are anxious verbally are less likely to admit this on paper and therefore measuring success of these techniques will be, in the most part anecdotal. However, changes were seen in a very short period of time. This suggests that concentrating on these areas could make a difference in the outcomes for GCSE resit learners in the future.

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Appendix A – Maths anxiety questionnaire

Instructions:

Please give each sentence a score in terms of how anxious you would feel during each situation. Use the scale at the right side and circle the number which you think best describes how you feel.

	☺				☹
	Low anxiety	Some anxiety	Moderate anxiety	Quite a bit of anxiety	High anxiety
1. Having to complete a maths exercise by yourself in class.	1	2	3	4	5
2. Thinking about a maths test the day before you take it.	1	2	3	4	5
3. Watching the teacher work out a maths problem on the board.	1	2	3	4	5
4. Taking a maths test.	1	2	3	4	5
5. Having to complete a maths exercise with another learner/a group in class.	1	2	3	4	5
6. Listening to the tutor talk for a long time in maths.	1	2	3	4	5
7. Listening to another learner in your class explain a maths problem.	1	2	3	4	5
8. Finding out you are going to have a surprise maths quiz when you start your maths lesson.	1	2	3	4	5
9. Starting a new topic in maths.	1	2	3	4	5
10. Fear of making a mistake in maths.	1	2	3	4	5

Appendix B Example of Classroom Display



Appendix C Staff Development Day Poster

CHANGING MINDSETS AND RESILIENCE IN MATHS



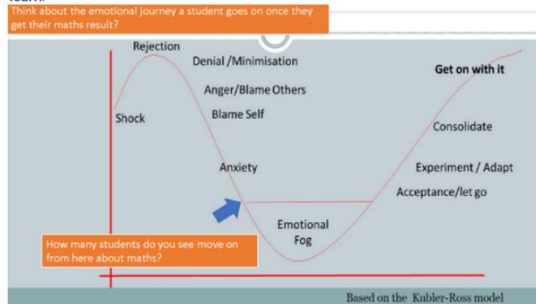
WHY THIS PROJECT?

Attainment on maths in FE is too low
Students often arrive with maths anxiety as at some point they have been told they are "not good at maths"
Students believe they have a fixed intelligence about maths and that this cannot change. This isn't helped by the UK culture that says it's ok to be bad at maths.

RESEARCH

Kubler-Ross Stages of Grief

We will be looking at how to move students forward out of the emotional fog into acceptance, so that they feel comfortable experimenting and adapting how they learn.



Jo Boaler - Professor of maths, Stanford

1. Anyone can learn maths to a high level
2. Mistakes help the brain grow
3. Believe in yourself and you will make more progress
4. Speed is not important



BUT HOW DO WE DEVELOP A GROWTH MINDSET FOR A FIXED MINDSET OUTCOME?

A major challenge we face is how to develop a student who has "failed" to believe that making mistakes in class will help them develop - especially when what they are measured on is a pass/fail outcome.

IS THERE ANYTHING WE CAN DO DIFFERENTLY?

According to Dylan William, the teacher makes the biggest difference in the classroom but it takes time to change habits.



Our current starting point is to take Jo Boalers 4 messages, and look at how we can develop these messages with our students.

WE WANT STUDENTS TO BELIEVE THEY CAN ACHIEVE IN MATHS

GROUP MEMBERS

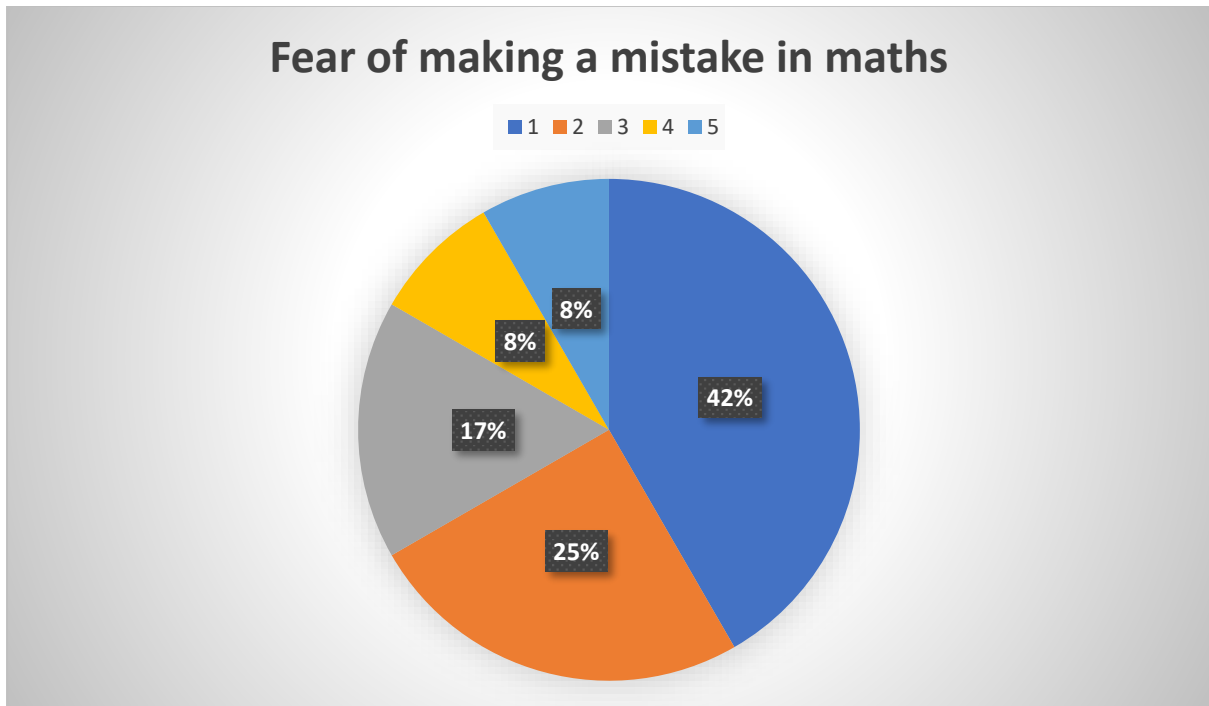
Denise Allsopp; Natalie Bird; Paul Clark; Angela Cloke; Suzie Dobbs; Sandra Haywood; Rachel Mutch; Linda Paterson; Mark Paterson; Kevin Solomon; Natalie Steptoe; Susan Tindall; Suzann Wells; Sandra Wills; Julia Wilson

Appendix D

Results of Maths Anxiety Questionnaire

1 = Low Anxiety

5 = High anxiety



Average scores all questions

Question	1	2	3	4	5	6	7	8	9	10	Average
ALL	1.44	2.54	1.29	2.63	1.73	1.65	1.4	1.92	1.63	2.17	1.84
M	1.26	1.89	1.16	2.05	1.37	1.58	1.47	1.53	1.53	1.79	1.56
F	1.55	2.97	1.38	3	1.97	1.69	1.34	2.17	1.69	2.41	2.02

Appendix E

Tutor comments following trial of Emotion Coaching techniques

Tutor A

A few of them were saying things like “oh well, there’s always next time” or “I’ll be fine; I’ll try harder”, almost as a reflex. I was telling them that it’s ok to feel disappointed/dispirited about it and that I understood how they felt etc. They didn’t seem to have as much of a verbal/noticeable reaction as you’ve described, but they did get on with the work really well and they had some really creative ideas. They were able to self-evaluate and develop their work really well. Normally, this group is really boisterous and distracted, so it was a big change and unexpected for results day.

Tutor B

Four of them came in before 9am. I had an inflatable palm tree in the middle of the room and gave them foam dice. Then I closed the door and invited them to throw dice, punch the tree or holler if they wanted. They were amused but didn’t really take me up on the offer. All four were extremely mature about it.

A fifth, the quietest, most-unassuming of them all who never shows a bad attitude, came in just before the lesson – to my surprise, she threw the dice furiously and burst into tears. As other learners were soon came in, they all began to commiserate with her. I was interested to see that it was them who adopted the ‘Hey its ok you can take it again in the summer!’ Well-intentioned and sweet of course ... but what we are debating as teachers, avoiding.

The sixth delivered the full-on ‘I don’t care’ response.

But, of course, she does.

Tutor C

Did the “It’s ok to feel rubbish etc” didn’t add any buts or elaborate and didn’t do the “We’ll get there in the summer” unless they said it first – and it seemed to work! No tantrums, no walking out, they just got on with the lesson as if it was a normal day – and a number of them had been gutted by their results. Some had started with the “I don’t care anyway” routine and were a bit “aggressive”, but once I said “It’s ok to feel crap about it” they started agreeing with me and calmed down. If they did start to raise their head later I just said “I know it’s not been a good day” and left it at that and they nodded and carried on with what they were doing. I feel like I should be constantly slapping my head to the desk at the moment... 😊

Tutor C

A learner who had been very quiet in the lesson after receiving his result, but had worked well, hung around at the end.

Tutor: “It’s ok to be upset about your result”

Suzann Wells

Learner: "I know, but I've just had a conversation with my mum, she kept saying it'll be alright in the summer"

Tutor: "It's not what you want to hear right now is it?"

Learner: "No"

Tutor "It's ok to feel rubbish at the moment"

Learner: "Thank you" and left smiling.

Appendix F Dissemination Strategy

As an FE College Tutor

- Parts of this project have already been disseminated via Staff development Days in college using Appendix B.
- Further dissemination will take place via department CPD from September 2020 onwards.
- Changes to induction practices from September 2020

As an Achievement for All Coach (afaeducation.org)

- Working with Post 16 colleges, discussing findings and strategies to improve
- Disseminating to colleagues via Coach Network meetings