What impact does linking the affective dimensions of teaching to behavioural, cognitive and emotional engagement have on key stage four boys?

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What Impact Does Linking the Affective Dimensions of Teaching to Behavioural, Cognitive and Emotional Engagement Have on Key Stage 4 Boys?

Abstract

Student engagement in a school context is often spoken about in a holistic sense rather than specific types of engagement. The aim of this practitioner research is to establish how breaking engagement into three different types – cognitive, behavioural and emotional – impacts on each type of engagement and engagement as a whole. This study investigates how the different engagement types interrelate through classroom-based strategy implementation and is measured through qualitative and quantitative data taken prior to and post strategy. The strategies applied are all dimensions that are within the control of the individual classroom teacher. This research will help practitioners and researchers to gain a further understanding into specific engagement types and strategies that can be used within the classroom and how to use them most effectively. The study found that increasing emotional engagement had the largest increase on engagement overall, whereas focussing solely on cognitive engagement can be detrimental to the other engagement types. The study took place in 2019, pre-pandemic, and the results may be different had the study been undertaken during, or following, the disruption of the pandemic.

Introduction and Context

Over the last few decades, there has been much research on the benefits of a 'relational' or 'caring' classroom (Bingham & Sidorkin, 2004; Noddings, 1968;' Noddings, 2005). However, it is becoming increasingly difficult to implement in practice as schools balance pupils' developmental and social needs with neoliberal accountability pressures and bureaucratic demands to calculate and report quantifiable examination results in a business-model fashion (Kostogriz, 2012). Due to this, many teachers find that there are decreasing opportunities to focus on engaging their students, considering how their classes like to learn, and feeling that they need to deliver content in a way that meets

accountability measures, thus diminishing opportunities for relational teaching (Kostogriz, 2012). Kostogriz (2012) discussed the extent through which a teacher holds the power to affect a student's or class's capacity to learn through their actions, and touched on how a social learning environment creates engaged responses from the learners, which links to the ideas found in a relational classroom.

A key aspect or indicator of a relational classroom is student engagement (White, 2016). I have always held a lot of interest in student engagement and ways to make them want to actively engage in their learning. As a music teacher, much of my learning task design has been practical in nature and group work focussed, rooted in enquiry-based learning and problem solving. At various stages in my career, I have found myself teaching second subjects such as English and Media Studies - subjects that are often set up to be entirely 'desk-based' subjects, where written work is what is assessed, rather than practical subjects where pupils are creating something physically. Despite this, when teaching writing-based subjects, I have maintained the philosophy of group work and enquiry within my teaching as in my experience I have found that giving pupils autonomy over their learning engages them on a deeper level. For that reason, I have decided to investigate links between the aspects of teaching that are within the control of the classroom teacher, and will be referring to them as the 'affective dimensions of teaching' following the term being coined by te Reile et al. (2017) and their impact on the different engagement types. When referring to 'the affective dimensions of teaching' (te Reile et al., 2017), I am referring to the aspects of classroom practice that are within the control of the teacher despite being within the confines of a neoliberal, accountability-based regime (Kostogriz, 2012). These aspects include task design - where feasible, classroom layout and displays, personality traits, teaching styles and dimensions of caring.

Having gone through the teacher training system and several years of school-lead, in-service, training myself, and having spoken to teachers who gained their teaching qualifications through other avenues or universities, it seems that using the affective dimensions of teaching are a topic merely touched upon, if taught at all. Instead, current teacher training and development appears to be more focussed on providing both preventative and reactive behaviour strategies or interventions in the form of setting expectations which are enforced through rewards and sanctions, rather than exploring other avenues

such as increased cognition levels, through which behaviour could be managed. I had always been aware of the need for intrinsic engagement (Ryan & Deci, 2000) and was aware, on an individual level, how I could adapt my lessons, their delivery, and even my persona to engage my students without the need for extrinsic reward. It was during working at a mainstream secondary boys school, with no religious affiliations, that I became most aware of this as a key skill of mine, and thus wanted to research it further. When I started at this school, I was given a final year GCSE class made almost entirely of the most poorly engaged and behaved boys in the year group. They had done no work with their previous teacher due to a breakdown in the relationship with him, and they had very little trust in the teachers of this subject. This class and I clicked instantly, and they worked well for me. I did not give out extrinsic rewards, nor am I a large, authoritarian person or intimidating presence physically. Therefore, I considered that it must have been in the way I chose to deliver the curriculum and my classroom manner that won them over, and resulted in their shift in engagement compared to their previous teacher. Having since moved to an alternative provision setting, working with pupils who for a variety of reasons have struggled within – or been excluded from – a mainstream setting, my interest in fostering engagement through intrinsic methods rather than rewards and sanctions has only increased further.

This interest builds on previous research I have undertaken which focussed on pupils' needs and perceptions as to which personality traits employed by their teachers, or which personality types of teachers, motivated them the most. The motivation for this initial research was sparked by frequently hearing colleagues mention, often with pride, that they ran a 'Victorian classroom' and were notoriously strict in the way they operated within its confines. They aimed to create a classroom atmosphere built on fear and punishment, where silent, prescribed, individual working was the norm and group tasks and independent enquiry were scarce. Since undertaking my teacher training and in the mainstream schools I have worked in since, I have witnessed this style of classroom management in more than one school. When hearing these conversations, and witnessing these teachers being asked by senior leaders to lead whole-staff training on classroom behaviour management, it was apparent that this style of teaching is still hailed as being the mark of an effective teacher by school leaders and other teachers. As a result, and having spoken to a pupil who said that he hated a specific

subject but worked hard in it because he liked the teacher and their classroom persona, I decided to explore from pupils' perspectives what they found most intrinsically motivating with regard to a teacher's personality or personality traits. As a result of this study, I would argue that a rigid, authoritarian teaching style does not signify quality teaching, but simply highlights an authoritarian teacher or personality. The data I acquired displayed that there were two key personality factors and three supporting personality traits which were most favoured by boys in regard to their intrinsic motivation - that is, positive engagement in an activity for reasons related to the activity rather than potential outcomes, or rewards that come as a consequence of the activity (Ryan and Deci, 2000). These findings are similar to the findings of te Reile et al. (2017) who found that in order to provide an engaging learning environment for pupils that were unable to cope with a mainstream school, it was the adaptation of the 'affective dimensions' that caused the alternative provision to be successful.

As a result, I now aim to evaluate the impact of focussing on particular affective dimensions within a mainstream school setting focusing specifically on key stage four (GCSE) aged male pupils. The rationale for choosing this demographic is that studies have shown that engagement decreases as pupils progress through secondary school, and boys are often less engaged than girls. I will be focussing on engagement in three forms: behavioural engagement, emotional engagement and cognitive engagement (Watt, Carmichael, Callingham, 2017) and linking particular affective dimensions to the three types of engagement. Throughout the study I will be recognising that, whilst they are three different forms of engagement, they are complementary to each other and thus overall student achievement. I hope that this study will help teacher's working in mainstream schools to be able to notice key signifiers of the different engagement types and gain understanding of how they interrelate, particularly in boys.

Literature Review:

Introduction

This narrative literature review will contain three key sections: engagement, affective dimensions and task design. Firstly, I will explore different aspects of and perspectives on engagement, starting with exploring engagement as a construct before breaking engagement into different, individual, components and reviewing relevant literature in these three areas. I will then explore 'affective dimensions' and how they link with a 'relational' classroom as well as reviewing what creating a relational classroom means for the learners. Finally, I will look at task design, specifically focussing on ways in which to effectively implement a practitioner-led study, working collaboratively with other teachers in a school.

Engagement as a Construct

Student engagement has long been linked to positive educational outcomes such as academic achievement (Reyes et al., 2012) as well as long-term well-being (OECD, 2003). Engagement is broadly acknowledged as being active or conscious participation in learning (Newmann, 1992;
Schraw & Lehman, 2001). The last decade has seen shifts in engagement research moving from unidimensional aspects of engagement, often focussing solely on behaviour as a sole indicator to engagement levels, to more multidimensional engagement concepts considering different types or styles of engagement (Wang et al., 2019; Yonezwa et al. 2009). In more recent years, engagement in school and learning has received increasing focus as a solution through which to improve school dropout rates (Wang & Fredricks, 2014; Fredricks et al. 2004; Fall & Roberts 2011) or diminishing academic motivation in adolescents, therefore, it is inferred that pupil engagement levels are malleable, often in response to changes within the school or classroom environment, relational factors, and academic ventures (Fredricks et al., 2004) and should be focussed on as a way to reduce the risk of school drop out or motivation loss.

The decline in academic engagement in adolescents as they progress throughout secondary school has been well-documented (Centre for Education Statistics and Evaluation, 2017; Skinner et al,. 2008) and several causational factors, such as disparities between adolescent developmental needs and their learning requirements (Eccles et al., 1993), increased neoliberalism and school competitiveness (Baltodano, 2012), have been hypothesized. However, there is much agreement amongst researchers that increased academic engagement serves as a "protective factor" (Skinner et al., 2008: 765) against "the pitfalls of adolescence", such as substance abuse, secondary school dropout and delinquency. Students that are not engaged are typically defined as being apathetic or passive in their approaches towards learning tasks, are more likely to report being bored and may be anxious or frustrated at being within a classroom environment (Skinner et al., 2008).

Highly engaged students are often characterised as those with strong educational aspirations and who view school as fundamental to their long-term goals (OECD, 2003; Gutman & Schoon, 2018). Highly-engaged students reflect this mindset within both their academic and non-academic school participation, and consequently have a heightened sense of belonging within the school in comparison with less-engaged students (OECD, 2003). Research has additionally found that more highly-engaged students in the classroom are more likely to receive positive interactions from both teachers and their peers (Ladd et al., 1999). Thus, positive school engagement is not only linked to increased academic achievement but is also instrumental to social, emotional and behavioural learning and well-being.

Emotional Engagement

In much research, emotional engagement is often discussed bilaterally: most simplistically as either positive or negative, or more convolutedly, as the experiences provided within the school context (both academic and extra-curricular in nature). Additionally, the way in which the learner responds to these experiences, such as with interest, enjoyment or anxiety (Connell and Wellborn, 1991), is also considered as part of emotional engagement. Some researchers, such as Finn (1989), additionally characterize emotional engagement as the extent to which pupils feel a sense of belonging within the school community and discuss how pupils that have a greater emotional connection to the school have

an increased likelihood of displaying engagement within the classroom context – that they feel they are a valued member of and belong within the school community.

Krapp et al, (1994) conceptualize emotional engagement as either personal or situational interest; personal interest being subjective and transitional based upon the activity itself and features of the activity that may appeal to the learner such as novelty or the nature of the prescribed task. Situational interest, in contrast, is rooted in perceived stability and the pursuit of long term goals, the willing participation in particular activities, choices or challenges to help achieve said goal.

The benefits of greater emotional engagement levels, and interconnections between behaviours and emotion, were partially identified by Skinner et al. (2008) in a longitudinal study. The study found that the effect of changes in emotional engagement on behavioural engagement was more significant than between behavioural and cognitive engagement or emotional and cognitive engagement. These findings link to the findings of Li & Lerner (2013) who concluded that the relationship between behavioural-cognitive engagement and emotional-cognitive engagement "often involves theoretical speculation coupled with equivocal findings" (Li & Lerner, 2013:22).

The tracking of emotional engagement over time has been documented by Park et al. (2012) who conducted a 3-year longitudinal study with ninth graders in California. Throughout the course of the study, they tracked pupils' affective responses to both a variety of learning activities and to other people involved in the learning activity: peers and teachers. They found emotional engagement to be versatile and adaptable to both time and context as well as directly linked to the student's perceived competence within the learning task. Consistent with the findings of Connell and Wellborn (1991), one finding of the study was that, regardless of the learner's gender or ethnicity, the fulfilment of the learner's need for autonomy was often directly linked to emotional engagement.

Gutman and Schoon (2018) found that in the UK there is a minor increase in engagement between ages 14 and 16, contradictory to US and Finnish educational research findings surrounding engagement levels and the same student age demographics (Wang et al., 2015). Gutman and Schoon (2018)

hypothesize this difference being due to differing school structures (namely the school stages during which public examinations are taken) and wider socio-cultural contexts such as, in the US, changing from junior-high to high school at the age of 15. Additionally, when pupils in the UK make the transition from primary to secondary school aged 11, the curriculum places most emphasis on preparation for the undertaking of public examinations aged 16, and prior to that, making the correct subject choices for optional subjects aged either 13 or 14. The result of this being that UK students may display higher levels of engagement in school aged 14-16 than their US or Finnish counterparts for reasons rooted in situational interest (Krapp, 1994) and the pursuit of their long-term goals; perceiving public examinations to be instrumental to obtaining access to their chosen next-stage of education.

The relationship between emotional engagement, situational interest and effort has been identified, though not described in such explicit terms, by Elliot and Dweck (1988) in their research on how learners react differently to failures. Elliot and Dweck apply the concept of children pursuing particular goals (situational interest) to different forms, or levels, of "mastery". They identify that mastery-orientated learners see learning tasks as an opportunity to increase their skills, knowledge or capabilities in particular areas and to help them in the pursuit of their long-term goals. Therefore, more emotionally engaged, mastery-orientated learners are more likely to engage with learning tasks on a deeper level with a focus on learning and mastering the work rather than 'just doing it'.

One final aspect of emotional engagement to explore is the interrelationship between a learner being emotionally engaged in something and 'flow'. Flow theory (Csikszentmihalyi, 1990) can be applied to activities such as computer gaming, during which players display high levels of engagement, often emotional engagement due to the composition and structure of video games. The two principal elements of flow theory are: perceived challenge and skills, that being that the perceived level of challenge within a task needs appear initially achievable to the learner and the skills acquired from the task are of benefit to the learner going forward (once again linking to situational interest). Flow theory states that if these conditions are met 'flow' will occur; flow being a heightened sense of immersion and engagement in a particular task, often to the point of losing track of time. Flow, or even low-level engagement, will not occur, if the level of task challenge in relation to the learner's

perceived skill level are not concurrent. Whilst the level of 'flow' of someone playing a video game may be difficult to replicate in a classroom or learning situation, it is not unachievable. Reeve & Woogul (2014: 529) discussed that for pupils to engage "enthusiastically, effortfully, strategically and proactively", the same way you would expect an individual to enter a 'flow' state when playing a video game, students need to consider learning, and their engagement in learning as a path to their desired educational, or post-educational, goals (Reeve & Woogul, 2014).

Behavioural Engagement

Behavioural engagement is broadly identified as being an external manifestation of internal motivation (Skinner, Kindermann, & Furrer, 2009) and there is evidence to suggest that it is behavioural engagement alone that is the most prominent predictor of school dropout rates (Archambault, Janosz, Fallu, & Pagani, 2009). There is further evidence (based on student self-perception) that indicates that girls demonstrate higher levels of behavioural engagement in school than boys (Covell, 2010; Wang, Willett, & Eccles, 2011). Fredricks et al. (2004) describe behavioural engagement as being the extent to which students actively participate in school activities both learning-based and within a classroom environment and within the wider school context. Rosário et al. (2017) further expands on the definition of behavioural engagement through stating that behavioural engagement uses aspects that are observable and "low-inferential", these are manifested as the deliberate actions of a learner, such as: being on time to school and lessons, actively participating in whole-class discussions or activities and displaying that they are following the teacher's instructions.

Much of the research on behavioural engagement as a standalone concept is based on examining the actions of students solely within a classroom context, such as learning motivation or behavioural difficulties (Pagani et al., 2012). However, researchers such as Abry et. al (2017) are starting to identify external factors, such as socio-cultural contexts or networks may contribute to or influence behaviour in the classroom. Often, attendance is considered a fundamental measure of behavioural engagement as attending school is the first step required to access learning, regardless of the behaviour once in the classroom, without the initial school attendance, further behavioural, emotional and cognitive engagement cannot occur. The Department for Education (DfE, 2016) published clear statistics outlining

the link between attendance and attainment at GCSE level, with the most extreme statistics being that 75% of pupils with 95% attendance or higher achieved at least 5 GCSEs at A*-C grade, as opposed to only 3% of pupils with 50% attendance achieving the same (DfE, 2016).

Rosário et al. (2017) conducted a four-year longitudinal study focussed on investigating external social and cultural influences and their impact on behavioural engagement in gypsy children (from gypsy, Roma and traveller communities) in Portugal. The main basis of the study was to ascertain whether increasing attendance, through embracing cultural mores of the gypsy community through getting younger members of the gypsy community to wake and 'invite' the younger children to school for the day, would impact positively on attendance figures and classroom behaviour. The classroom focus of the study took place within mathematics lessons due to the fact that it is a core subject, and thus mathematical skill levels are consistently built on throughout school life, and numerical skills are valuable for life beyond school particularly within the Portuguese Gypsy community as much of their income is generated through the selling of wares. The outcome of the study was that the group that were 'invited' to school benefited from increased attendance rates in addition to an increase in their behavioural engagement in class. This was measured not only through the class teacher's observations, but also from a quantifiable perspective through analysing test results. The 'invited' group achieved higher test results in mathematics and hence their rate of progression throughout school increased.

Tuomo et al. (2015) explored the relationship between "classroom quality", defined as "classroom organisation" in relation to learners' "behaviour, time and attention" (Emmer & Stough, 2001: 103), particularly with a focus on methods employed by teachers to manage behaviour through encouraging desirable behaviour, minimising or diffusing any non-desirable behaviour. As part of their study Tuomo et al. used Cronbach's Alphas for classroom quality domains (emotional support, classroom organisation and instructional support) as a means through which to measure the ways in which certain dimensions were being used within the classrooms observed. Their findings highlighted that providing emotional support in tandem with the other two domains provided the best grounding for behavioural engagement at primary school level. At secondary school level on the other hand, where

teachers see their pupils less frequently, the "classroom organisation" and "instructional organisation" was more fore-fronted as having a direct impact on behavioural engagement. From pupil perceptions, secondary students rated themselves as most behaviourally engaged in classrooms with high levels of instructional support. Pupils respond to, and hold expectations of the teacher to, provide systemically delivered, useful teaching materials that cover key ideas and concepts alongside prompt and relevant feedback.

The link between emotional engagement and increased behavioural engagement has been further explored by Raufelder et al. (2016) who conducted a study in which they drew comparisons between learner self-determination and reliance on both peers and the class teacher and behavioural and emotional engagement (as separate constructs). They found that students that are both peer and teacher dependent, as opposed to just teacher or peer dependent or peer-and-teacher-independent (pupils that prefer to work alone) displayed the greatest level of behavioural engagement in comparison with pupils that were less reliant on classroom-based relationships. They also found that students that fell into this category also reported the same level of emotional engagement.

This once again reflects the findings of Li & Lerner (2010) who state that emotional engagement is indirectly related to academic competence in that increased emotional engagement manifests itself as behavioural engagement. Similarly, Reguiero et al. (2018) who applied the concept of emotional and behavioural engagement to the context of homework and learning beyond the classroom. They categorised learners into five categories: moderate learning goals, failure avoidance, unmotivated group, positive goals and multiple goals. Of the five categories the two groups linked with the pursuit of learning goals (linked to situational interest) scored most highly for the amount of time spent on homework and the amount of work produced. This highlights that the link between emotional engagement and behavioural engagement within the classroom also transfers to work outside of the classroom.

Cognitive Engagement

Of the three dimensions of engagement, it is cognitive engagement that appears to have received the least attention as a standalone concept, often discussed as a third type of engagement alongside behavioural and emotional, but rarely explored further or given the same level of attention as the other types of engagement. This lack of specific attention is interesting, even surprising, as it is cognitive skills that are most closely associated with traditional schooling (Brown et al., 1989).

Smillie et al., (2016) explored personality traits based on the 'big five' (Goldberg, 1993) personality traits: openness/intellect (O/I), extroversion, intellect, conscientiousness and agreeableness. Traditionally the composite trait of openness/intellect was simply just 'intellect' to represent intellectual curiosity, though the addition of openness enhances this trait to include open to experiences (Costa and McRae, 1992). It has been found that people who display high levels of O/I tend to be more cognitively engaged than those without. DeYoung (2013) attributes this to intellect being rooted in cognitive engagement with abstract concepts and information, with the supposition that in order to be labelled with the latter part of the trait, intellect, that there must be the ability to process higher order thinking. This idea is elaborated by McCrae & Costa (1997: 834) who hypothesise that highly intellectual individuals may display greater levels of cognitive engagement because they are more intrinsically motivated to explore abstract concepts within set tasks and that they "become more involved in tasks that require flexible and fluid thought".

Within a school setting, O'Walker & Greene (2009) explored cognitive engagement in relation to motivational beliefs and student self-perception with high school aged students in the USA and found that self-efficacy held no influence on cognitive engagement, however the use of 'mastery goals' helped to foster a willingness in the students to gain a purposeful understand of the material being taught. Rotgans & Schmidt (2011) investigated using a 'goal mastery' model to increase cognitive engagement through problem based learning. The study was conducted as such that the teacher would pose a problem which students would discuss guided by the teacher. The discussion would then influence learning goals set by the students in order to overcome the problem, thus the learning was self-directed. The rationale for problem based learning as a means through which to encourage

cognitive engagement is based on three assumptions identified by Schmidt (2009). The first being that problem based learning utilises 'theory construction', whereby when pupils have to self-direct their learning and engage with literature surrounding a topic they deepen their understanding of the topic. The second being that by relating the problem to real-life issues, once again linking to situational interest, learners will become more interested in the problem and thus engage with learning at a deeper level. Finally, problem based learning gives learners the feeling of autonomy and collaboration with peers rather than the intervention of a teacher in the learning process, and learning through autonomy rather than factual transmission via the teacher, deeper cognitive engagement with the topic and, subsequently a deeper understanding of the topic, is achieved. Rotgans & Schmidt (2011) do identify, however, that within group work settings the level of cognitive engagement on an individual basis could vary greatly due to group dynamics.

Affective Dimensions

The affective dimensions of teaching are described by te Riele et al. (2017:57) as being the "informal moments of teaching"; that being the aspects of teaching that are free of the impositions of neo-liberal policy, accountability and school competitiveness. The describe 'affective dimensions' as being the elements of a lesson, or teaching, that are within the control of the teacher and often central to the relational aspect of schooling. This aspect of the application of affective teaching dimensions in mainstream schools was identified by McGregor & Mills (2014) who noted that many teachers that have left mainstream education have taken up employment in alternative school settings where the ethos is different and allows them to engage in the practices that drew them to teaching in the first place.

Much of the research surrounding affective teaching dimensions has occurred within alternative education provisions rather than within mainstream education, perhaps due to the increased need to employ relational approaches when working with more disaffected learners and the differing aims of alternative provision, that being re-engaging learners in education as opposed to the accountability mandates increasingly found in mainstream settings. te Riele et al. (2017) note that, in spite of the

more fore fronted approach to affective teaching dimensions in alternative school settings, all of the other decisive aspects of schooling (high expectations of behaviour, attendance and punctuality alongside a rigorous and relevant curriculum to enable learners on their future pathways) are upheld.

One of the key aspects of the affective dimensions of teaching, which links most to emotional engagement, is the 'caring' aspect of teaching. Margonis (2004) ran a case study exploring the reasons behind Wiggington's (1986) success when working with, once again, difficult and disaffected students and how he moved from a didactic method of teaching as a new teacher, to a relational classroom in which there was a sense of democracy from the pupils which in turn resulted in highly successful teaching and learning. Upon starting to work at the school in question, Wigginton realised that much of the behavioural issues within the classroom were rooted in resentment of the school and its rules and students feeling that their lives were being continually monitored; perhaps indicating a lack of trust between the school and its students. Thus, Wiggington set himself a task of finding social-relationships that would revolutionise apathy into engagement in learning. One of the most transformative aspects of increasing engagement within the classroom that Wigginton identified was displaying vulnerability in himself as a teacher and asking the pupils what would make them work, in turn sending the pupils a powerful signal that he was open to their viewpoints and perspectives on their own learning, something that many of the pupils had been feeling disaffected about.

The link between the use of affective teaching dimensions and marginalised, or 'at-risk' young people in alternative educational settings has also been explored by McGregor & Mills (2012) who explore the reasons for young people becoming disengaged with education initially as well as common issues that lead to young people dropping out of or being excluded from mainstream schooling. They recognise that mainstream schooling, and more 'traditional' teaching practices, fail to acknowledge cultural capital or external influences that students bring with them to the classroom, many of which may be instrumental in whether they are able to comply with, or resist, certain school practices or expectations. In their study, McGregor & Mills (2012) note that many of the students attending the alternative provision schools were making up to 90-minute commutes, passing several mainstream educational establishments that are significantly closer to their homes. This demonstrates that the

alternative school settings have not only re-engaged the students with school emotionally, both in their affective liking for school but also for learning (through providing vocational courses alongside 'regular subjects' thus linking, once again to situational interest through making the learning relevant to the students and their desired educational pathways), but also behaviourally.

In relation to the teaching itself, many of the students identified particular practices or traits employed by the teachers that they found that they were the most responsive to. Some of the most recurring strategies named by students were teachers being described as "'real life', 'hands-on', 'connected' and 'conversational' (McGregor & Mills, 2012). Despite the opportunity for the beneficial use of affective dimensions in the mainstream school system, very little work has been done in researching how affective dimensions are utilised outside of alternative education programmes. This could perhaps be due to a perceived lesser need for metacognition when working with pupils that have not been seriously disaffected from education and are thus more compliant with more traditional styles of teaching and learning. One study that took place in a mainstream setting was done by Crosby (2018) who undertook a small-scale study which explored, from pupil perspectives, which aspects of a teacher's personality and teaching style they found most motivational. Whilst not encompassing all possible affective teaching dimensions, the study certainly focussed on one aspect of it. Pupils indicated that, from a broad range of personality aspects and teaching styles the most commonly recurrent preferences from the pupils were displaying a strong and in-depth subject knowledge, and displaying a sense of humour, followed then by being 'relatable', relatable in this instance meaning not afraid to show a level of vulnerability or mention life outside of the classroom. The fourth highest scoring trait identified by the pupils was the teacher being 'caring'.

Affective Dimensions: 'Caring' and Relational Classrooms

The concept of 'caring' and fostering a 'caring' classroom environment is not a new one. 'Caring' is, by its nature, subjective and this subjectivity and opinion as to whether or not an individual is being caring is often held by the person receiving the 'caring'. Naturally, from the carer's perspective, if they set out with good intentions of being caring they believe they are, regardless of whether or not the other

person agrees. Noddings (1986) describes caring as being "complex and intricate" and that the spectrum as to what counts as acts of 'caring' is broadly diverse. An example of this is when we see support messages sent to and from strangers around the world in the wake of large-scale disaster to "show that we care", which is a totally different act to working on an individual level with a struggling student in a lesson, or finding a particular way to support an individual such as providing a learner facing a difficult home life with equipment needed for learning where they might not otherwise have any. In fact, both experiences are so wildly different they are almost incomparable, yet both equally qualify as acts of caring.

Given the complexity and broad spectral variation found within 'caring', how can one define, in certain terms, what makes a caring teacher? Noddings (1992) characterised a 'caring' teacher as one that holds democratic values within the classroom (not unlike the findings of Wiggington mentioned earlier) and one that respects, and even celebrates, student diversity within the classroom; the strengths and weaknesses that they bring to the classroom dynamic and the needs, goal and values that accompany these. Additionally, Noddings (1992) identified the importance of patience and friendliness balanced with structure and routine. Urdan and Schoenfelder (2006) explored the concept of caring from pupil perceptions and summarised that caring is delineated within the classroom primarily through teacher-student discourse and that pupils perceive that they hold higher levels of engagement and effort when they feel that their teachers are supportive of their learning, thus actively demonstrating 'caring'.

In successful education systems around the world, it is often commonplace for the government, or educational governing body, to have in place a set of 'standards' which function as system-level expectations that all schools and educators must follow; thus (theoretically at least) creating a common minimum standard for the quality of education. Despite there being a large amount of literature extolling the virtues of fostering a 'caring' classroom environment and the benefit of perceiving a teacher to be 'caring' from a pupil's perspective, in the UK Government's Teachers' Standards (DfE, 2011), a set of 'standards' against which teachers are measured regardless of their career stage, the need to create an environment of 'caring' is not mentioned, indeed the word 'care' or 'caring' does not feature within the document. Interestingly, nor are related words such as 'trust',

'patience' or 'understanding' (with the exception of when the word is being applied to a particular aspect of knowledge or pedagogy that a teacher should be aware of). The closest standard pertaining to 'caring' is: "establish a safe and stimulating environment for pupils, rooted in mutual Respect", though with no further elaboration as to what constitutes a 'safe' environment. Similarly, in the Australian (The Education Council, 2011) and Canadian (Council of Ministers of Education, 2010) education systems, within the teacher's standards frameworks - or their most similar equivalent, once again the need to be a 'caring' teacher is not focussed on. Thus it appears, at least at policy level, that this aspect of affective teaching dimensions is not of importance; or at least is not deemed to contribute significantly enough to the progress of learners and the quality of teaching. Perhaps, it is simply seen as a difficult domain to quantify and is left out for that purpose. An interesting comparison is the schooling system of Finland, hailed as being one of the best and most progressive in the world. In Finland there is no 'set' collection of teacher's standards that need to be adhered to, rather granting autonomy at school level; allowing schools and educators to tailor the education to their individual pupils and circumstances. This level of freedom within the application of 'affective dimensions' is inherently uncommon throughout educational systems worldwide.

Other aspects of Affective Dimensions

As mentioned in the introduction, as well as 'caring' and relational classrooms, I am extending the term 'affective dimensions of teaching' to include further aspects of teaching that are within the control of the teacher. These include, but are not limited to, task design, classroom layout, questioning styles and techniques employed by teachers; in short, elements of classroom practice which are not prescribed or enforced by national policy.

A key area to focus on is classroom layout, which often strongly coincides with task design. The layout of a classroom offers a multitude of non-verbal cues to the learners entering the space as to what is to be expected of them within the classroom behaviourally, the levels of interaction encouraged and the sorts of tasks that they might be expected to undertake (Somner, 1977). Somner identifies that classroom layout also immediately signifies the power imbalance found within a classroom; that being

that the power lies solely with the teacher who has the power to direct pupils to move to different locations within the classroom, who is the decisive factor in the content and purpose of display boards and any other physical aspect of the classroom. When entering the space, the pupils have to adhere to these decisions and their own area of control within the classroom is in most cases limited to their own personal space.

Said et al. (2015) ran a study in which preschool pupils were given increased involvement over their learning space and worked collaboratively with teachers in order to design the learning space to their preferences. Whilst this presented some practical impossibilities and unrealistic expectations from the pupils, it also allowed teachers to gain further insight from the learners as to what their preferences are (or aren't) and thus adapt future teaching to incorporate these further.

Betoret & Artiga (2004) conducted a study with trainee secondary school teachers drawing links between teaching style (traditional – teacher as a transmitter of information, cognitive – teacher as an instructor, humanist – teacher as 'an educator' or behaviourist – teacher as a 'technician', approaches) and preferred classroom layout style. Their findings displayed that, from a purely theoretical perspective, the trainee teachers that fell into the traditional or product centred approaches favoured a vertical classroom layout compared to the horizontal classroom layouts of those who fell into humanist or behaviourist beliefs. The classroom layout preferences of the trainees directly linked to the types of activity that the trainee teachers expected to undertake within the classroom, such as practical speaking based tasks in language lessons or traditional 'knowledge transmission' and 'memory-based exam styles' of science. Interestingly, from a pupils perspective, Ramli (2013) found that learners preferred interactive learning spaces that provided scope for group tasks and collaborative working. In the same study it was found that teachers, on the other hand, were more cautious to the spaces preferred by the learners and generally behaviour management and maintaining control and order within the classroom were the key factors when deciding on a classroom layout.

Task-Design, Engagement and Policy

One final aspect of 'affective teaching dimensions' to focus on is task design, particularly in relation to national policy given that many schools are set to working within these limitations. Task design and the educational approaches taken by teachers to enable learners is, at face value, within their control. Approaches to task design often differ depending on subject matter (maths, for example, traditionally being less based on independent enquiry or group tasks than a subject such as history and music) and the teachers own preferred teaching style (traditional, cognitive, behaviourist or humanist). Despite the apparent freedoms that teachers have when it comes to task design, there is also the need to fit teaching content within the national curriculum frameworks and exam syllabi as well as Ofsted expectations within the maintained sectors. Chater (2015:45) describes this conflict of educational ideals as "a battleground between ideological forces, whose weapons are compulsion and rhetoric." Much literature attributes this to the instillation of neo-liberal ideals, school league-tabling and competitiveness (Hursh, 2007). Pring (2013) expresses that through the national curriculum framework implementation, since it first came to fruition in 1988, that teachers have 'lost control' of the curriculum and as a result teach cautiously; teaching what is required from a policy perspective rather than what they believe to be appropriate, this inevitably impacts on the design of learning tasks. At school level, the chokehold of policy can often be seen as increased levels of prescriptiveness of the learning processes being applied, particularly in more challenging schools or those perceived by Ofsted to not be performing as they should. Therefore some schools have adopted 'house styles' or 'non-negotiables' of the school teaching style as measures, similar to the implementation of the national curriculum, to ensure a certain level of quality and consistency across teaching and learning. Edwards (2015:13) says that, "Successful teaching can never be a prescriptive and predetermined delivery of a curriculum" and identifies that the most successful of teaching strategies is reciprocity; when the teacher actively makes for understanding a learners' opinion and approach to a learning task the teacher is then able to draw on their subject knowledge to create a task that is highly engaging for the learner.

Edwards (2015) draws on a previous study conducted by Nisbet & Shucksmith (1986) which focuses on how to enable pupils to become effective learners that actively participate in the learning process,

facilitated by the teacher, rather than being passive receptors of knowledge. Through designing tasks that encourage metacognition in learners the teacher is providing the learner with the toolkit required to navigate their own approaches through classroom tasks, thus increasing engagement for the learner and allowing learning to flourish.

Effective Collaborative Working with Teachers and Strategy Implementation

The final aspect of literature to review is that of successful implementation strategies when working with groups of teachers. Teaching and professional development at school level is often dominated by metacognitive discourse, often influenced by particular 'buzzwords' or trends within the educational environment. During the first two years of teaching, the training year and the newly qualified teacher year, support is constant and you are assigned an individual mentor or coach. You are observed more frequently and receive tips, support and feedback throughout the process. You are encouraged to keep evidence of things you have done well and reflect constantly on your practice. Though after the initial two years coaching and professional development changes; you no longer have a mentor and there is no requirement for you to keep evidence, thus the reflective element of your teaching diminishes as you join the main body of staff following the schools professional development programme. Schools often set working groups with particular foci for each group to investigate or implement. Edwards (2005) identifies that the autonomous potential of teachers is believed to increase when given the opportunity to work collaboratively with and draw support from other colleagues and there is much research to suggest that collaborative working amongst teachers increases self-efficacy as well as having positive impact on classroom practices (Cordingley et. al (2015).

Moate (2015) discusses the benefit of using informal discussion groups as part of research with teachers in relation to Bakhtinian structures (Bakhtin, 1993); that being that the real-life experience of teachers presents the concrete truth and reality of the nature of teaching as opposed to the more abstract, analytical and ideological expressions of this truth often found within research or policy. When engaging in discourse around teaching and the nature of teaching, teachers are presented with

the opportunity to become "witness to their words [and] outsiders to their thoughts" (Bakhtin, 1986:137); to think objectively about their practice away from the immediate pressures and interchangeable atmosphere of an active classroom. Adopting this view allows researchers to gain a more veracious insight into the workings of a classroom as a place of engagement, where technicality and morality assimilate.

Levine & Marcus (2010) undertook a study assessing differing approaches to teachers' collaborative working and the impact on teacher learning. The study highlighted that, in order for collaborative working to be of most , the intention behind the collaboration needs to be strategic from the outset; particularly with regard to whether the collaboration is aimed at focussing on developing one small structure or skill area with a known outcome, or focussing at a variety of protocols to assess their impact on one particular area. Lunenberg & Samaras (2011) compiled a framework of guidelines for conducting research with small teacher focus groups as a teacher-researcher or an action-research practitioner.

1. The root of the enquiry should be teaching practice, and the method of enquiry should run parallel with that inquiry.
2. Learning should be prioritised and the study should be focussed on increasing learning beyond the individual.
3. Sharing findings through presentation and publication should be the intention of the research.
4. Dialogical frameworks should be put in place to ensure supportive and effective engagement with the participants' contributions.

Conclusions

I am going to separate my conclusions drawn from the literature review into three sections: engagement, affective dimensions and finally task design when working with teachers, drawing together and summarising key similarities in findings from previous research and studies in order to help shape my research questions

Amongst research there is general agreement that high levels of engagement in school directly link to positive educational outcomes long term and decrease 'risk' factors such as school dropout rates. When separating engagement into three separate strands: cognitive, emotional and behavioural engagement, the amount of research on each area is varied in both detail and quantity; emotional engagement being the most researched and cognitive engagement being the least. Amongst these areas is it clear that emotional engagement is often thought of as underpinning, or a key contributor to, both cognitive and behavioural engagement; that you cannot have either behavioural or cognitive behavioural without also displaying emotional engagement with school.

Regarding the affective dimensions of teaching, little research has been done on the application of affective teaching dimensions outside of alternative provision establishments with the exception of under the umbrella of 'caring'. It seems that there is a consensus amongst researchers and professionals that increased neo-liberal policy and school competitiveness has had a negative impact on the practicality, and creativity, of teaching leaving professionals feeling stifled within their practice due to curriculum and accountability demands, thus teachers are often teaching to meet curriculum demands.

Finally, when working with focus groups of teachers, semi-structured discussion can be a highly useful tool to encourage metacognition amongst professionals and to gain an accurate insight into the workings of the classroom 'from the coalface'. When setting out to work with a focus group of teachers collaboratively, the focus must be clear from the outset, whether your foci is multifaceted and utilises many small strategies to assess the impact on one larger skill or area, or whether you are developing a skill or structure that has a known outcome - in short, is your focus prescriptive or investigative. Linking to accountability measures and increasing neoliberalism in schools, when working with teachers it is imperative to consider that, in order to gain clear results and properly implemented studies, studies must not be seen (by the practitioner) to potentially be detrimental or disruptive to, their individual accountability measures, thus the way the study is to be implemented must compliment the aspects outside of their control such as curriculum.

Research Questions:

Based on my literature review, I have the following research questions that I plan to explore:

1. How can affective dimensions of teaching be used to increase a specific type of engagement in key stage four boys?
2. Does isolating one particular aspect of engagement, utilising affective teaching dimensions and applying a specific strategy lead to greater engagement overall?
3. How do the three types of engagement: cognitive, emotional and behavioural, interrelate?

Methodology

Research design:

This study is a piece of practitioner research, implemented in my current school. The study was formed through teachers implementing different strategies, suggested by myself, relating to the three different engagement types; these strategies have been based on previously conducted research by other practitioners and researchers. The study took place over the course of one school term in 2019, prior to the Covid-19 pandemic and the results have been analysed based from quantitative data in the form of student surveys and qualitative data obtained from semi-structured interviews with the teachers involved in the study. The aim of the study is to ascertain how the types of engagement interrelate, can we find strategies to increase specific engagement types and to understand whether one type of engagement has more of an effect on engagement than others. Based on previous studies and research, I hypothesise that emotional engagement is a significant contributor to overall engagement, however, I want to see, if this is the case, how exactly does it impact the other types of engagement as separate entities.

Participants

The participants in the focus group (n=6) were teachers from a range of subjects (English, physical education, geography and science) who volunteered to participate in the study to form part of their annually required continual professional development (CPD) hours. All are at a variety of stages of their careers (1 = newly qualified teacher, 1 = head of department, 1 = 2nd in department, 3 = 3+ years teaching but no further responsibilities). My own participation consisted of leading the CPD sessions, the design of the study and the data collection. Each teacher selected a class from their KS4 (GCSE) classes to focus on throughout the study, the classes varied between high and low ability sets and mixed ability classes. All student participants were male, aged 13-16 and predominantly from white middle or working class backgrounds, though other socio-cultural backgrounds and ethnicities are prevalent in each class.

Research strategies, Data Collection and Intervention – Approaches Taken and Rationale

Data Collection

The data collection has been drawn from two primary sources: semi-structured interviews with the teachers and paper based questionnaires for the pupil participants. The purpose of the initial interview was to establish the participants' understanding of 'affective teaching dimensions' and how they are currently being utilised in the participants' respective classrooms to allow me to further note changes in the use of affective dimensions in relation to the study. A second interview at the conclusion of the study was to encourage metacognitive discourse in relation to the interventions undertaken and to garner general thoughts or opinions as to the impact of the strategies. The pupil questionnaires were conducted on paper due to the variances in subject demands and classroom limitations, such as ease of computer access or not; the PE class did not have a set classroom due to it being a practical lesson rather than theory, thus paper questionnaires as opposed to digitally distributed questionnaires allowed for greater ease of data collection. The questionnaire was a previously used and ratified

questionnaire (Hart et. al, 2011) to assess school engagement. All questions were based on a five-point Likert scale (1 - Strongly disagree, 2 - disagree, 3 - neither agree nor disagree, 4 - agree, 5 - strongly agree). A five-point Likert scale was used as opposed to a 7-point Likert scale due to the number of questions, psychometric literature suggests that when there are multiple questions there is little difference between a five and seven point scale (Nunnally, 1978), thus choosing a five-point scale would require the survey respondents to be more focussed in their responses. This questionnaire was chosen as the questions fitted the context of a secondary school more so than other ratified engagement questionnaires and because the questions were categorised into sections concerning cognitive, emotional and behavioural engagement, thus making it easier to ascertain the engagement strength and deficit of each class.

Intervention

Through resources found whilst undertaking my literature review, I compiled a list of strategies or interventions, each strategy being deliberately chosen with the aim of increasing one specific type of engagement. This list was shared with the teacher participants once the deficit area of engagement had been identified. Teachers then selected 1-3 of the strategies to implement over the course of the term. I gave the teachers autonomy to choose strategies due to the differences in class abilities, subject demands and due to the fact that some of the strategies may be already being used by the teachers organically.

The research took place over the course of one school term (January – April) and comprised of two key data collections, one at the start of the study and one at the end (both interviews and questionnaires) as well as a midpoint meeting with the teacher participants to offer the participants the opportunity to ask any questions, raise any concerns or ask for any support with the strategies as the study as it was in progress. The primary student questionnaires and data analysis to determine the overarching engagement types of each class were all undertaken during the first week of term to allow the study to start in the second week of term. This allowed the study to run for eleven weeks before the second pupil questionnaire was to be distributed. Due to the configuration of the school year, having the study run for eleven weeks also meant that for most classes the strategies were

applied to more than one topic of study or scheme of work, Figure 1. below Outlines the data collection cycle.

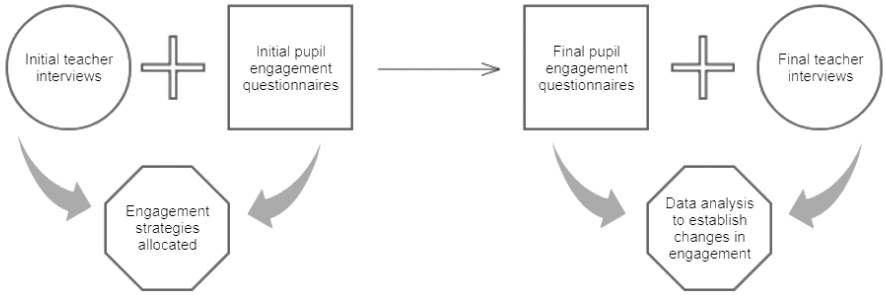


Fig. 1: Diagram depicting phases of research and data collection

Ethical Issues

In line with BERA and CUREC ethical guidelines (BERA, 2018) voluntary informed consent was sought from teacher participants beforehand. The teacher participants were provided an information sheet outlining the aims and nature of the study, the purpose of the research, to whom the data would be presented, how the data would be used and reported and how the data would be stored and destroyed in line with General Data Protection Regulation (GDPR, 2018) guidelines. Teacher participants were required to sign a form to confirm that they had understood how the data would be used and stored and consented to this. In order to adequately satisfy the principles of fully informed consent, teacher participants were distributed the forms and information several days before the initial interviews and returned them directly to me via my staff pigeon hole or direct email, thus relieving any possibility of 'peer pressure' and ensuring true voluntary participation. Signed consent was additionally sought for the purpose of audio recording the interviews. Participants were reminded that they could choose to withdraw from the study at any time without prejudice or needing to give reason (BERA, 2018). Due to the nature of practitioner research, as the pupil participation, aside from the questionnaire which was undertaken with full anonymity, was within the norms of what would be expected within the classroom, individual consent was not sought for each pupil, rather the headteacher gave consent for the study to be run within the school and the pupils had the opportunity to not participate in the questionnaire

should they wish; though no pupils chose to abstain from the survey. Once again, the head teacher was provided with an information sheet outlining the nature of the research, to whom the data would be available and how the data would be stored.

Ethical considerations were made specifically due to the duality of role when undertaking practitioner research, particularly with consideration to confidentiality. In order to assure that the study was carried out authentically by the teacher participants, I gave detail of how I would be presenting any specific findings to ensure confidentiality, this includes giving participants a pseudonym when disseminating my findings and that my research would not prejudice participants. Other ethical considerations to consider within the school context are considerations such as power dynamics in an individual student-teacher relationship and similarly with whole classes - that being a class may appear more behaviourally engaged for a more senior teacher. Anonymity was kept at all times for the students in the study in order to eliminate any hesitations in answering authentically or honestly.

Methods of Data Analysis

Once pupil questionnaire data was collected, at both the data collection cycles, the data was analysed and each engagement type, for each class, was given an average score based on the pupil responses for each of the questionnaire sections. Averages were sought in order to clearly display, on a whole class level, which areas of engagement were being displayed and to what extent, to then form the basis of the strategies to be implemented during the study. Following this, where appropriate, graphs have been created to visually display changes in the whole class averaged changes in overall engagement. A limitation of the need for continued anonymity is that it is therefore impossible to highlight specific pupils who have made significant average changes in their engagement levels within the pupil questionnaire feedback. Some of the teachers, however, did highlight pupils that appeared to particularly benefit from the intervention.

Findings

My initial data analysis showed that, for the majority of the classes, focussing on particular areas of engagement would thus increase this particular area of engagement. The class that showed the least change in their engagement was the class that were a top set year 11 English class, the class that showed the most overall engagement increase was a bottom set year 10 science set. This initial set of results was not surprising given that, based on my literature review, it would be reasonable to expect that highly achieving pupils would be more engaged naturally and with less need for intervention, have more positive classroom interactions as a result of this academic ability and thus be more likely to be emotionally engaged in school due to receiving more positive experiences within the school environment, therefore the potential for increase was lower from the outset of the investigation, the year 10 bottom set science class, however, displaying the lowest initial engagement also provided the greatest scope for an increase in engagement should the interventions have proven to be successful, which it appears they were.

Discussion

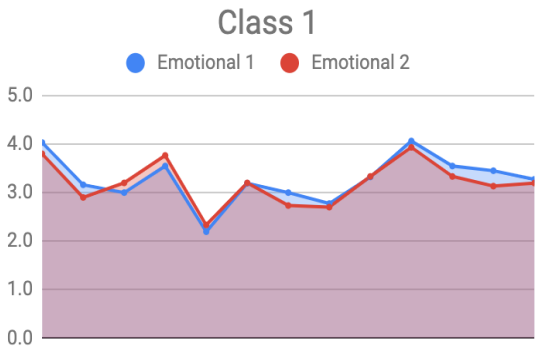
Cognitive Focus Classes

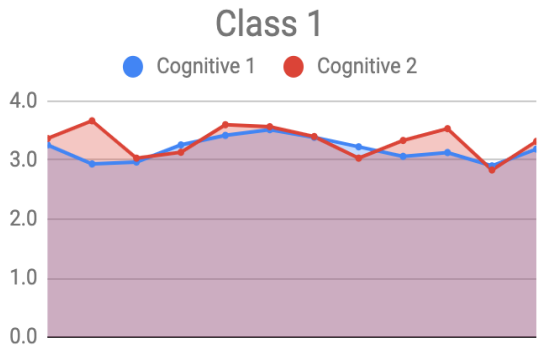
The two classes in which a cognitive focus were very different cohorts for the following reasons: one was in the final year of their English GCSE course (Class 1) and the other in their first year of GCSE geography (class 2) , class 1 were also the top ability set within their year group, many of whom were listed as being 'gifted and talented' and nearly all have aspirations of both further and higher education. Class 2, on the other hand, were a mixed ability set. For this reason I expected the strategies selected by both teachers to be different and the classes to be affected in different ways. Interestingly, both classes strongly disagreed with one of the statements, 'I think learning is boring', which somewhat contradicts the idea of both classes displaying the lowest level of cognitive engagement. However that response was, in itself, an outlier to their other responses. This response also, however, opens up the possibility that, for both classes, they enjoy learning and the love of learning is not the root of them

showing lower levels of cognitive engagement. It may be a case that, particularly for the high achieving class, that this learning feels stifled to them or that they feel restricted in relation to what they are taught and the requirements to pass exams.

For the high ability English set (final year of GCSE) the selected strategies were giving greater consideration to higher order questioning (a revised and extended version of Bloom's taxonomy) in conjunction with varying lesson style between investigative working, practical knowledge application and 'lecture style' revision lessons (lessons in which verbal discourse and questioning was prioritised over compulsory or prescribed written work, students had the autonomy to make their own notes throughout the lesson should they wish); it should be noted that, in this particular class, behaviour is extremely good and all exam content had been covered so a 'lecture' style lesson would be easier to implement. The teacher reported that, due to the fact that this class had covered the exam content and her focus was to implement these 'lecture' style lessons, within which she prepared a variety of questions that fulfilled the following knowledge domains (based on the updated taxonomy): factual knowledge, procedural knowledge, conceptual knowledge and metacognitive knowledge.

Teacher and pupil feedback was that the questioning focus in conjunction with the 'lecture style' of teaching gave pace to what would have been a slower lesson had the questions been written, thus pupils had to be fully engaged in order to not become left behind in what was a fast paced lesson. The teacher reported that breaking the questions into the four knowledge domains allowed her to assess strengths and weaknesses within pupil knowledge in different and more detailed ways and that pupils enjoyed the different cognitive challenges posed with each of the four different types of questions.





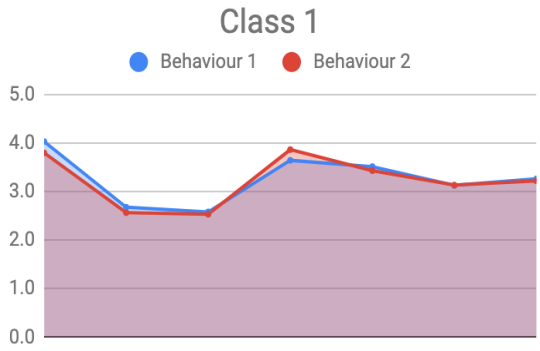


Fig. 2, 3, 4. Results of Engagement Surveys 1 (pre-intervention) and 2 (post-intervention).

Following the re-surveying of Class 1, it was apparent that cognitive engagement had increased by +0.1 in these lessons as a result of the intervention. Behavioural and emotional engagement, on the other hand, had both decreased by -0.1. (See fig. 2, 3, 4).

The strategy employed by the teacher of Class 2 (mixed ability, first year GCSE geography) was to underpin topics and mini topics with a conceptual 'driving question' that help to encourage higher levels of cognition through encouraging learners to draw links between theoretical knowledge learnt in lessons and real life situations. The teacher commented that she found the concept of a driving question difficult to implement initially as it requires a change in how the lesson is framed, that being said she did feel that it helped to increase the engagement levels within the class, particularly with one particular, lower ability, pupil who often struggles to see the relevance to school-based learning to his own life ambitions.

In contrast with the teachers perspective, the pupil data suggests that the pupils did not notice a significant engagement difference themselves. The results of the pupil survey displayed no increase in cognitive engagement, a minor decrease (-0.2) in emotional engagement, and a slight increase (+0.1) in behavioural engagement.



Fig. 5, 6, 7. Results of Engagement Surveys 1 (pre-intervention) and 2 (post-intervention)

The reasons for the disparity between the teachers' perspectives and the pupils of class 1 could be attributed to pupil self-perceptions of engagement differing to that of the teacher, similarly it could be due to pupils not being familiar with, or understanding, the purpose of the 'driving' question, having not had this incorporated into lessons or topics previously. The teacher stated:

"*Attaching relevance to the world outside of the classroom was hugely helpful with less engaged pupils as it gave the lesson more meaning to them individually. This was also reinforced by the driving question which subtly reminded pupils of cross-curricular skills being used within the lesson.*"

Class 1 and class 2 have both shown an increase in cognitive engagement as a result of the intervention, albeit in different amounts. Class 1, despite being a top set, were the least cognitively engaged of all the classes surveyed. This could be attributed to a lack of cognitive challenge within the lessons due to their higher attainment and thus could be the reason that they showed a greater increase in cognitive engagement than class 2. Given that class one were already behaviourally and emotionally engaged in school (more than half of the class are school prefects) it is of little surprise to see virtually no change in their emotional or behavioural engagement.

Class 2, on the other hand, being of mixed ability did see a greater increase in behavioural engagement, but only a minor increase in cognitive engagement. This could be due to an increase in behavioural engagement as a secondary effect on increasing cognitive engagement, particularly with less engaged pupils who the class teacher found to have benefited most from the intervention.

Emotional Focus Classes

Class 3 (second year of GCSE, low ability set, English) and class 4 (second year of GCSE, low-mid ability set, English) were the two classes that showed the greatest emotional engagement deficit when surveyed at the start of the study. Both classes being within the same year group and of lower, or lower-mid range, ability, and within the same subject area allowed for a more direct comparison between the two classes and the strategies employed by the two teachers, compared with the studies undertaken for the other areas of engagement with other classes.

The strategy implemented by the teacher of class 3 (teacher 3) was 'modelling'; not only in the traditional sense of the teacher demonstrating a task to later be undertaken by the pupils, but to modelling behaviours such as showing vulnerability, making mistakes and learning from them as well as working more closely on a one-to-one basis with pupils to model positive interactions and give pupils an increased sense of value within the classroom; a direct implementation of the strategies used by Wigginton (1986) and pupil preferences identified by Crosby (2018). The teacher said that he found this strategy to be *"extremely successful"* not only at increasing their emotional engagement but also the class' behavioural engagement. Teacher 3 felt that the boys benefited from seeing him,

perhaps particularly given that he is a male teacher, apologising when making a mistake and verbalising how we would go about rectifying the error;

"I believe this allowed pupils to feel less pressure in the classroom and that those pupils who have the attitude of 'if I don't try in the first place, then I can't fail' felt more encouraged to join in".

The results of the survey showed that the intervention increased both emotional and behavioural engagement by respectively, emotional increasing by +0.3 as a whole and behavioural engagement also increasing by +0.3.

Due to how the questionnaire was structured, it is also possible to micro-analyse the increase in relation to the pupils 'affective liking for learning' as well as their 'affective' liking for school as a holistic environment. When analysed at this level, class 3's enjoyment of learning increased by +0.5 and their liking of school as a whole increased by +0.2. This demonstrates how important an enjoyment of learning and lessons is to a pupil's wider school experience. This also perhaps further explains the links between classroom engagement and behaviour as it appears from the study that the two are delicately intertwined.

This is in line with previous evidence done by Fredrickson (2001) which placed emotional engagement as a catalyst to behavioural engagement. Interestingly, despite the increase in emotional and behavioural engagement, cognitive engagement decreased. I hypothesise that this could be for one of the following reasons: 1, given that many of this class were on low engagement levels, a significant increase in both emotional and behavioural engagement in a short, eight-week period, over a longer period could lead to increased cognitive engagement; thus the study did not run long enough to assess a longer-term impact. 2 - Once again, due to the low engagement level of the group as a whole, from pupil perspectives, it could be that the decrease was due to the change in more pupils actually 'doing the work' than previously, whereas previously they may have been listening to the lesson but not proactive in then applying the knowledge or completing lesson tasks. This second hypothesis would also link as to why the teacher believes there to have been a significant increase in engagement within

this class. In short, an increased work output may have been applied by the teacher as the means through which to measure engagement, rather than the cognitive impact on the pupils, thus explaining the difference in the feedback from both the pupils and the teacher.

Class 3 are shared with another teacher (teacher X) for two out of five of their weekly lessons. Knowing this I asked the teacher participating in the study to liaise with the other teacher, who was not implementing any intervention, to monitor any changes in their lessons given that it is within the same subject area. Unlike teacher 3, teacher X did not notice any changes in either emotional or behavioural engagement within their lessons and reported that the class had worse behaviour for them than teacher 3. Whilst there are other factors such as, lesson time of the day (e.g. Friday last period generally being more challenging than second period on a Tuesday), classroom layout, general teacher-student dynamics to be considered, could implementing this 'modelling' help teacher X to see an increase in engagement in the same way that teacher 3 did? The change in engagement witnessed by teacher 3, in contrast to no change witnessed by teacher X, suggests that engagement levels can be specific to the teacher, are malleable, within the control of the teacher and are possibly less linked to the individual's subject enjoyment or the topic than initially thought.

The strategies employed by the teacher of class 4 were: making an effort to spend more time 1-1 with pupils, allowing pupils to choose their own way of working (e.g. explaining the aims of the task, what the teacher is looking for within and by the end of the task) and giving pupils the freedom to go about undertaking the task and displaying the results in their own preferred style. The final strategy employed by the teacher of class 4 was to explicitly verbalise or display on the board skills that they would be using in lesson and how they may relate to the pupils long term life plans, such as: reading to the class helps with public speaking, 'having a go' and being resilient is the same as not becoming despondent after conceding a goal during a game of football, and other similar analogies.

Class 4's results followed a similar pattern to that of class 3: both emotional and behavioural engagement increased, whilst cognitive engagement decreased. In class 4, however, the changes in engagement levels were more extreme than in class 3, for example class 3's emotional engagement

increased by an average of +0.3 overall, whereas class 4's emotional engagement increased by +0.9; the greatest increase of all the classes in any engagement type.

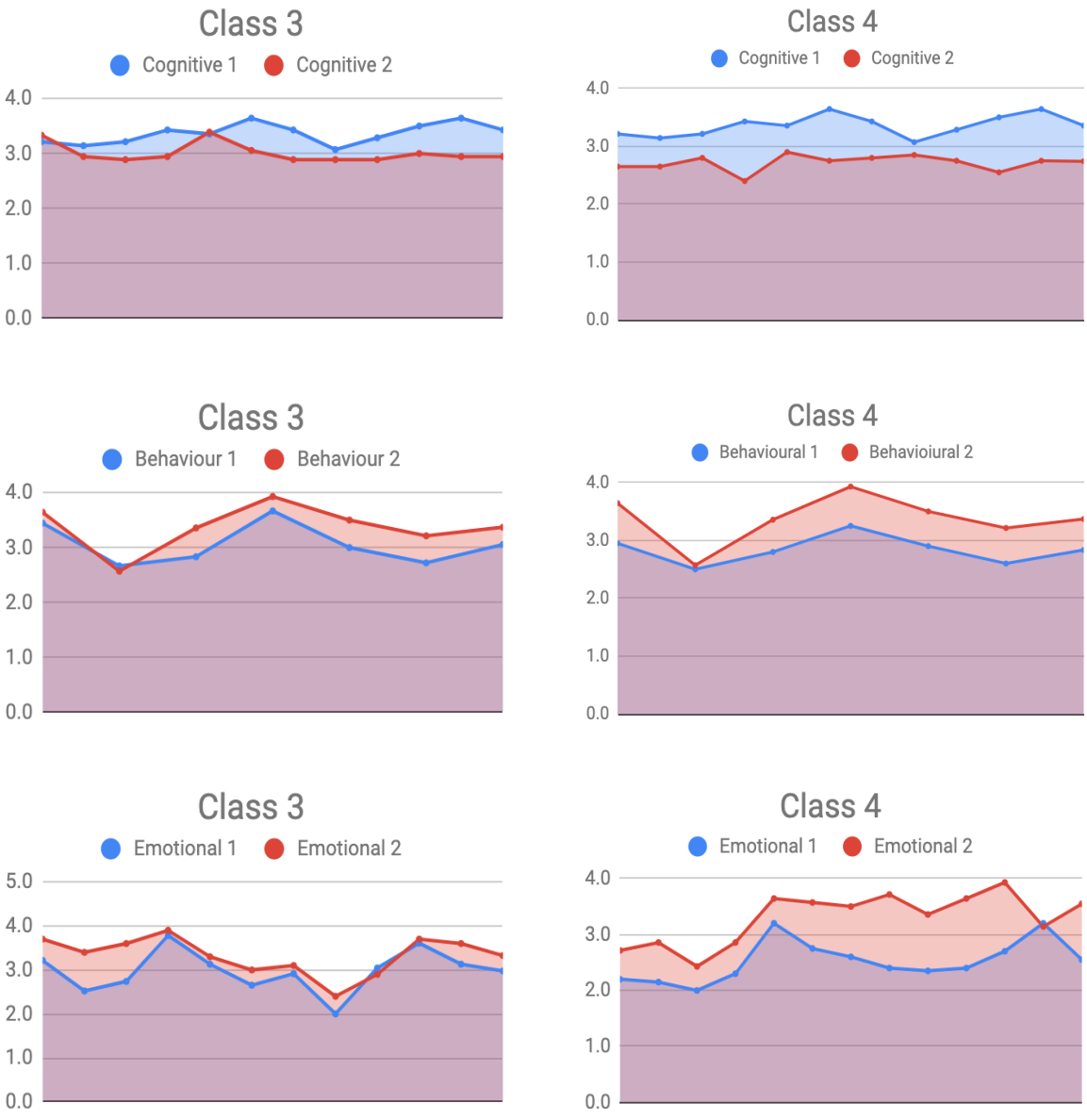


Fig. 8, 10, 12 (left column) and 9, 11, 13 (right column). Results of Engagement Surveys on Engagement.

One rationale for this could be that class 3, being of lower ability overall as opposed to class 4's mixed ability, may not have interpreted the statements in the survey on the same level as pupils of higher ability in class 4, this too could speculate the reasons as to why the emotional engagement survey results from class 3 contain far more extreme peaks and troughs than class 4, it could be due to patterns in statement comprehension throughout the survey. On the other hand, however, the results

could demonstrate that the strategies applied by the teacher of class 4 were more successful than those of class 3.

The teacher of class 4 stated that, in line with the results from the students, she felt that there had been an increase in engagement throughout the course of the study. By contrast, once the study had ended she stopped fore fronting the strategies in her lessons and felt that the engagement levels dropped almost instantly, as a result she now focuses on using the strategies as part of her normal lesson framework.

The emotional engagement of class 4 showed the greatest increase of +0.9. This could be the direct result of pupils seeing greater relevance to the subject than they had previously due to the focus on applying the skills being used in the lesson and making it relevant to the pupils and their individual goals, thus helping pupils who may have felt disengaged or that the topic bore no relevance to their own aspirations, to find value in the learning. The teacher also felt that being less prescriptive in her task design often allowed pupils to be more investigative. She felt that this increased sense of autonomy, not only with how pupils went about their tasks, but also how they then presented their work increased levels of enjoyment for the vast majority of the class. There were a few lower ability pupils, however, who struggled with the lack of instruction and as a result defaulted to following the same modus operandi as other pupils sat near them.

Based solely on the results of the surveys as displayed in the graphs below, it would appear that the strategies applied by teacher 4 yielded the greater results in terms of emotional and behavioural engagement increase; however also displayed the greatest decrease in cognitive engagement. Though, there could be an element of subjectivity on the pupil's part that could account for this, such as their perceived increased enjoyment and emotional engagement in learning may be mistaken for easier or less challenging tasks on their part. Thus a more robust measure of cognitive engagement would verify this.

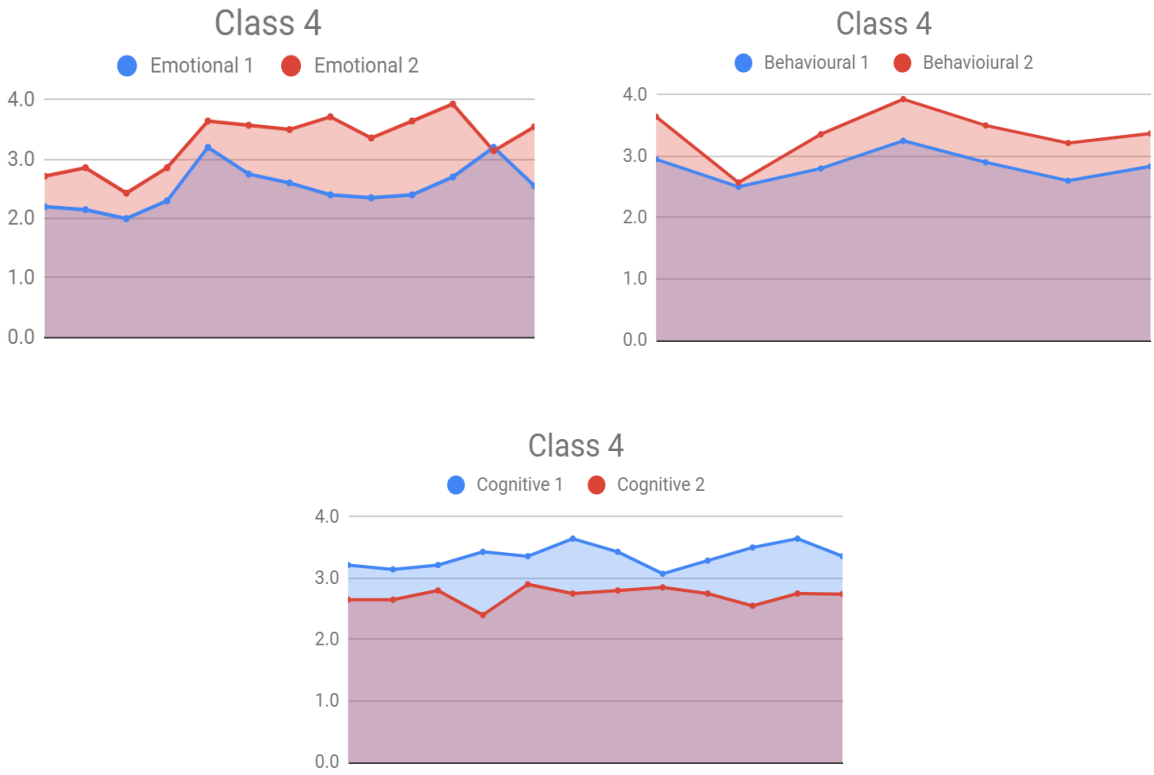


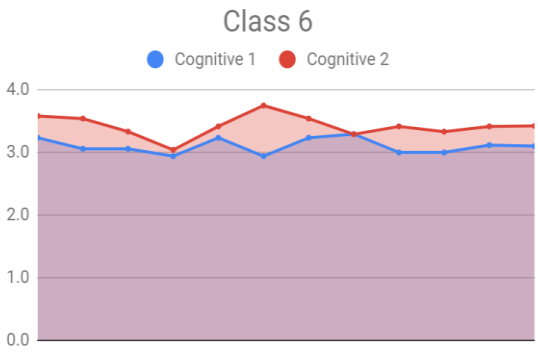
Fig. 14, 15, 16. Results of Engagement Surveys on Engagement. Class 4.

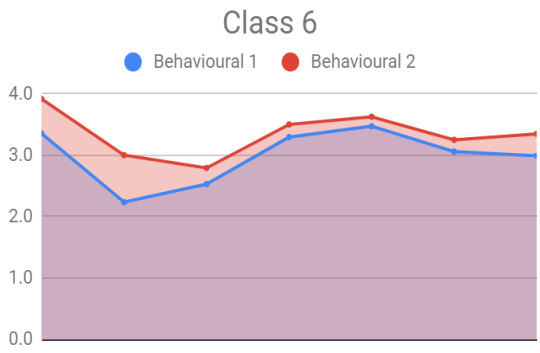
One observation that applies to both the classes is that of all the classes that took part in the study, the emotional deficit classes displayed the least resilience behaviourally in their approach to school work, both scoring low for the questions, "If I have trouble understanding a problem, I go over it again until I understand it." and "When I run into a difficult homework problem, I keep working at it until I think I've solved it." Class 3 having the lower initial scores of 1.8 and 1.9 for those questions respectively and class 4 having scores of 3.0 and 2.7. However, both classes displayed a substantial increase in their responses after completing the study, class 3 increasing to 2.9 and 2.4 (an average increase of 0.75) and class 4's responses increasing to 3.5 and 3.2 (an average increase of +0.5) across both questions. This therefore suggests that increasing emotional engagement also can increase a pupil's academic resilience.

Behavioural Focus Classes

Classes 5 (mid-low ability, final year of GCSE, science) and 6 (mixed ability, first year of GCSE, PE core sport session) displayed the lowest levels of behavioural engagement when surveyed at the start of the study. Given the vast differences in school stage, subject content and demands (practical vs. theoretical) and class ability, it is not realistic to directly compare the two classes. That being said, one similarity between the two classes is that they both increased across all three engagement areas overall (emotional by +0.3, behavioural by +0.3 and cognitive by +0.3).

The teacher of class 6 focussed on increasing opportunities to give pupils a sense of competence and applying 'token economy technique'. These two strategies are relatively similar in aim but implemented in slightly different ways. 'Token economy technique' is high levels of positive reinforcement for even the simplest of tasks such as displaying appropriate behaviour or having the correct equipment without being reminded. Extrinsic motivators can also be applied to this strategy though the majority of the positive reinforcement should be in the form of short verbal praise. The 'increased sense of competence' strategy affects the lesson structure as it requires the teacher to chunk lessons into a greater number of micro-tasks that give pupils more frequent opportunities to feel as though they have accomplished and understood a task. The two strategies hold a similarity in that they afford learners with more frequent opportunities to feel as though they have achieved, succeeded or accomplished something within the lesson. In addition to these two strategies, the teacher of class 6 created opportunities for some of the least engaged pupils to 'become the teacher' where appropriate.





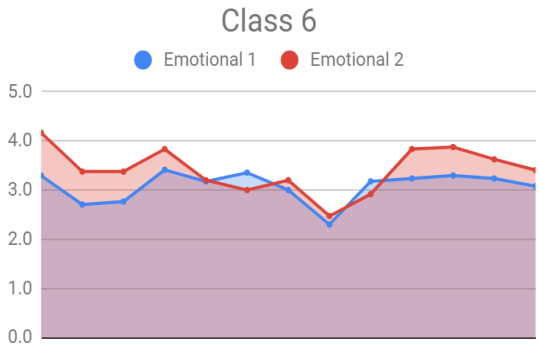


Fig. 17, 18, 19. Results of Engagement Surveys on Engagement. Class 4.

The data from class 6 shows an increase across all three areas of engagement: emotional, cognitive and behavioural; the greatest increases being in emotional and behavioural engagement as well as a minor increase in cognitive engagement.

Teacher 6, identified that many of the class are apathetic and do not enjoy the lessons due to the practical nature of it - they simply do not enjoy sports as much as they enjoy classroom-based lessons. For these pupils specifically, 'becoming the teacher' had the greatest impact on their engagement. Teacher 6 perceived this to be due to the pupils' lack of confidence in their physical skill and coordination but not necessarily their understanding of the task or rules of the sport or game. By allowing them to explain, demonstrate knowledge and understanding (though not necessarily in the form of a practical demonstration) and 'referee' where appropriate, this did help to engage the pupils in the sport and therefore the lesson. Whilst this increased engagement in the skill learning and development tasks, there was little impact on engagement when in a practical game situation at the end of the lesson, the teacher once again attributing this to a lack of confidence in their coordination or skill levels, or simply a lack of enjoyment for the sport. Having the opportunity to 'referee' these games, on the other hand, did mean that whilst these pupils were less engaged in the physical aspect of the game, they were more engaged in it cognitively - more so than when they are playing as part of the teams. Similarly, the teacher of class five noted the importance and positive impact that giving these particular pupils had on increasing their sense of value in the part of a lesson in which they can typically become despondent.

The pupils in class 6 that are more engaged with sports and practical PE lessons, as opposed to theoretical PE lessons, enjoyed an increased amount of praise through the token economy technique as well as more opportunities to demonstrate their skills. However, teacher 6 noted that it is these pupils (many of whom can be disruptive in other areas of the school) that are often well behaved in PE. Thus the teacher surmised that, of the various groups of pupils, it was those who were less engaged in PE for practical reasons who gained the most from the strategies that were implemented.

Class 5 (low ability, final year of GCSE, science) implemented a different range of strategies including: outlining the entire lesson on the board at the start (thus allowing pupils to see the progression of tasks before the lesson starts), greater use of group work tasks, quick 'check-backs' to prior knowledge to help reinforce the learning that had just taken place (therefore explicitly demonstrating to the learners that each task has a learning-centred purpose) and finally an increased use of practical activities regardless of whether the lesson was purely a revision topic rather than a new concept.

Teacher 5, prior to implementing the strategies, expressed that (due to the poor behaviour of the class) she had always avoided doing practical or group-based, collaborative learning tasks and rather chose to keep tasks book and sheet based, with rigid seating plans designed for minimal interaction as that was the only way she felt she could get through the lesson and that she had apprehensions about implementing a less controlled atmosphere within the lesson. Teacher 5 did also note that, due to school mock exams for this year group, class 5 had a week less on the study in comparison to the other classes.

The graphs for class 5 show highly erratic peaks and troughs for emotional engagement depending on the question. One of the significant troughs in the graphs comes following a question about their affective liking of learning as a standalone concept in comparison to their affective liking of school specifically. In spite of this, class 5's behavioural engagement did increase after the implementation of the strategies and the increase (mostly) adhered to the peaks and troughs from the first questionnaire. Similarly, cognitive engagement showed some minor increase which could be

attributed to the change in task design being more engaging to some of the learners. Emotional engagement, however, showed the greatest increase in engagement overall, increasing from an average of 3.0 to 3.4, an average increase of +0.4.

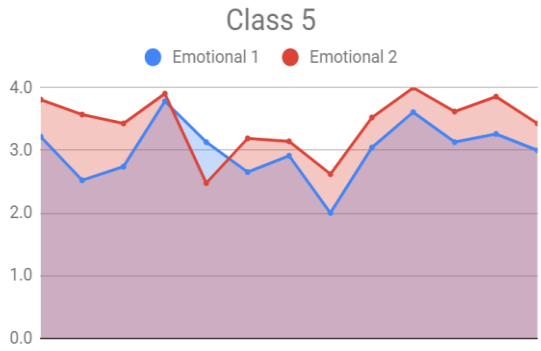


Fig. 20. Results of Engagement Surveys on Engagement. Class 5.

Teacher 5 identified that the strategies she found to increase engagement the most were changing the task types (increasing practical and group work in particular). She also stated that, as part of this, outlining all of the lessons' tasks at the start helped to contextualise the learning for some of the pupils who were more likely to 'coast' through the lesson. She believed that by outlining the lesson from the outset it helped pupils to realise how the tasks are interlinked with one another and how the learning led from one task directly into the next, similarly it engaged pupils who realised that without engaging with one task, they may end up left behind for the next. Teacher 5 found that this, in conjunction with working in groups, particularly helped engage pupils who had not done the work when practical work had been attempted in previous occasions (on an individual basis). Teacher 5 also considered that by working in groups it could also reduce the fear of individual failure and therefore encourages pupils to take risks, similar to the findings of teacher 6 in PE.

Teacher 5 also noted that changing the way in which tasks were designed, having previously relied simply on questions based on revising particular topics (partially due to also feeling that there was no time for creative freedoms within the curriculum due to exam pressure), also helped to increase engagement. She believed that pupils had become too accustomed to simply answering sets of questions, which, whilst replicating what will be asked of them in the exam, was disengaging due to

the predictable and repetitive nature of the lessons. Even simple ideas such as pupils answering questions in groups or giving pupils sets of questions, answering the ones they are able to and then passing the sheet along (thus giving a sense of team-work and shared interest) was beneficial to the pupils.

Teacher 5 felt, however, that the engagement did not increase consistently (partly due to interruptions external to the study such as mock examinations) and that some tasks were more successful than others, such as the 'check backs'. Teacher 5 felt that the 'check backs' were less successful than outlining the learning from the start, and whilst it highlighted very clearly "this is what you have learned since the start of the lesson", that the actual action of checking back was disruptive to the flow of the lesson and felt as though it caused the lesson to momentarily stagnate when both she and the pupils wanted to continue moving forward. Thus outlining the lesson structure at the start, giving the feeling of continually moving forward and progressing, was found to be more successful.

Of both class 5 and 6, both showed an overall average increase in engagement across all three areas. However, the distribution of cognitive/emotional/behavioural increase varied. In both classes, the behavioural engagement was increased the most, suggesting that the strategies employed with the aim of increasing behavioural engagement are successful in doing so. Class 5 showed the greatest increase in behavioural and emotional engagement, suggesting a shift in the enjoyment of the classes due to the change in task style and increased opportunities for collaboration. Class 5 showed the least cognitive engagement of the two classes, this could be attributed to the fact that, as they were a final year class preparing for the GCSE examinations, they had already covered all of the content previously and were now revising it, thus they weren't as cognitively engaged as the material within the lesson was not new to them.

Class 6 showed the greatest increases to be in behavioural engagement (increasing from 3.0 to 3.3) and cognitive engagement (increasing from 3.1 to 3.4). This difference between the distribution of impact on different types of engagement could be attributed to an increase in cognitive engagement,

specifically the pupils that had previously been disengaged with practical PE having found new ways to engage with the subject.

Strategies that Showed the Highest Levels of Increase in Engagement as a Whole

An overall observation to be taken from the study would be to state that it appears, similar to the findings of Skinner, (2008), that class 4 (emotional) had the greatest increase in engagement overall, as shown through the greatest increase in both emotional (+0.25) and behavioural engagement (+0.25) compared to that of the other classes. This links to the existing idea that if an individual is emotionally engaged in a learning activity that they are more likely to behave. Interestingly, however, this class also displayed the greatest decrease in cognitive engagement (-0.3), as did the other class (class 3, -0.3) whose focus was emotional engagement. The fact that both classes' cognitive engagement decreased by the same amount is also interesting. This suggests a trend in how emotional and behavioural engagement can impact cognitive engagement, the study classes suggesting that by increasing a class' emotional and behavioural engagement by an average of +0.25, the adverse effect could mean decreasing cognitive engagement by an average -0.3. However, wider factors need to be considered, such as, do the learners simply perceive themselves to be 'thinking' less about tasks purely because they are more engaged in other ways; alternatively, has the greater increase in both emotional and behavioural engagement lead to greater understanding prior to approaching new learning tasks, which has caused learners to believe they are less cognitively engaged, when, in reality, they are displaying the same level of engagement as before but they are less conscious of how hard they are thinking about learning tasks prior to tackling them.

Interestingly, the behaviourally focussed classes were the group that showed the greatest increase in cognitive engagement, though the amount of engagement was still relatively low in comparison to other areas, with the exception of the PE lesson (+0.3 cognitive average) which was practical in nature. The practical nature of the lesson could be the key attributor to the greater increase in cognitive engagement. Once again, existing pupil perceptions about this particular lesson or type of lesson could

be that it is not a subject in which they believe they are cognitively engaged as the cognitive demands in a practical sense feel very different to those in desk-based lessons such as English. However, the 'becoming the teacher' strategy, causing pupils to cognitively engage with the practical aspect in a way they may not have previously, could be the reason for this class showing the greatest increase in cognitive engagement.

Strategies that Showed the Least Overall Increase and Possible Reasons Why

The engagement focus that displayed the lowest level of overall engagement increase was the cognitive focus. Similarly, this focus displayed virtually no increase within cognitive engagement as a standalone area (one class (class 1) increased by +0.1 whilst the other class (class 2) remained exactly the same). Prior to the study I expected that a high-attaining class (class 1) would enjoy and positively engage with strategies linked to increasing cognitive engagement as, knowing a number of the pupils in the class, they are the sort of pupils that enjoy being challenged academically and cognitively. However, this hypothesis of mine could be the very factor that may be the reason for the lack of increase in the case of Class 1. They are a top set, formed of highly academic and aspirational learners (that also have skills and talents in other areas such as music), and thus are already highly engaged in all aspects of engagement. They, as a class, will also be attempting more challenging work to access higher grades and therefore the potential for any further cognitive engagement is therefore more limited. For the other cognitive class, however, this is not the case.

Aside from virtually no impact on cognitive engagement specifically, both classes displayed a decrease in emotional engagement (class 1 by -0.1 and class 2 by -0.2). Whilst these figures aren't vast decreases, based on the findings of the study within the emotionally focussed classes, this could, over a long period of implementation, be detrimental to learning overall. It is interesting that focussing on cognitive engagement as a standalone seemingly has the propensity to then decrease emotional engagement. This could indicate that encouraging pupils to think about tasks in different ways, particularly with the focus of driving questions and a greater focus on 'open ended questions' (thus

forcing pupils to access higher order thinking skills and greater levels of metacognition) can be off putting to learners. When considering wider contextual factors impacting learners (and teachers), the need to 'get the right answer' or 'make the right points', with the end goal of performing well in tests and examinations (in the lead up to public examinations) is ever present. This too could further explain the lack of engagement with, or reluctance to engage with, the cognitive strategies from the learners perspectives. Whilst, in the long run, it may encourage them to be more inquisitive or critical thinkers, is it necessary to what they need to do to simply pass the exam? Could this, therefore, also explain the reason for focusing on cognitive engagement causing a decrease in emotional engagement? That being, the learners can no longer see the direct link between what they are learning and their academic and life goals (both short and long term).

Other Observations

In addition to the findings pertaining specifically to the study and the impact of the strategies, there were some other observations that I made from the surveying of the pupils before and after the study. One of these observations was that all of the classes, regardless of their age, which year of their GCSE they are in or levels of/type of engagement, had low responses to Q8, 'Most mornings, I look forward to going to school.' on the pupil survey initially - the combined score of all classes combined equalling 2.3 - 0.7 below 'neither agree nor disagree' on the Likert scale. The two mid-low ability classes, and the lowest-attaining class (class 3 - English, emotional focus and class 5 - Science, behavioural focus, class 4 - English, emotional focus) had an exceptionally low response, classes 3 and 4 scoring an average response of 2 - disagree, and class 5 scoring an average of 2.4, 0.6 below a score of 3 - neither agree nor disagree. Whilst this response is perhaps less of a surprise for the classes that were less emotionally engaged in school, it is certainly more unexpected for the high achieving and cognitively engaged classes, many of whom are in student positions of responsibility and are actively engaged in the school community. Such a high number of pupils not looking forward to attending school and an environment of learning as well as the social environment from which many of their friendships are

formed, is a concern and addressing this negative opinion towards school could be crucial in improving engagement as a whole and thus attainment.

Interestingly, when surveyed again after the study, all of the classes except those with the cognitive focus answered the question much more positively, showing an increase to an average result of 2.8, and an increase of +0.5 in spite of the two cognitive classes showing virtually no change. Class 3 showed the greatest increase going from a score of 2.4 to 3.7. This therefore evokes the notion that focussing on the emotional and behavioural engagement of pupils affects the extent to which they enjoy school and want to be in a school environment.

Limitations of the Study

Whilst the study shows some clear indications and patterns regarding the impact applying strategies specifically to various types of engagement, there are some key limitations to the study and the extent to which the findings can be taken as absolute. Whilst some of the findings match similar studies that had been run previously (Skinner et, al, 2008 and Li & Lerner, 2013), as well as previous work focussing on strategies to increase engagement as a whole, this is the first example of each aspect of engagement: cognitive, emotional and behavioural, has been focussed on as a standalone aspect whilst having strategies applied specifically to each area.

One of the key limitations is study size. There were only 6 classes that took part in the study and a much larger sample would be needed for more accurate results. That being said, when surveying the classes initially it was somewhat fortunate that of the six classes I ended up with two classes with an engagement deficit in each area. I would like the opportunity to run the study with much larger sample sizes to be able to have a larger number of results and therefore more accurate data about each area and my findings. It would also be interesting if the opportunity arose to run the study using more than one class from each teacher, applying the same strategies to their differing classes. This too would

allow for more accurate comparison as it would provide a wider variety of learners and class dynamics that the strategies have been applied to.

Further limitations included interference in lessons and topics due to scheduled school events such as mock exams for the final year GCSE classes, which resulted in a term, and topics that were broken up around these. One final limitation could be that I informed teachers which engagement area was the deficit in their class, which could cause an unintentional bias. However I felt this was necessary to allow them to choose the intervention strategies for themselves from the list, rather than being allocated by myself, as I felt removing that autonomy from the teachers was not in keeping with the idea of the 'affective dimensions of teaching' being within the teacher's control.

Conclusions

In conclusion, it appears that focusing on increasing emotional engagement appears to have the greatest number of benefits for an entire class. Not only does focussing on increasing emotional engagement increase the extent to which pupils appear to enjoy school life but also their resilience levels in academic areas as well as increasing classroom behaviour, which, based on previous studies, can reduce the risk of school dropout rate and associated risks. This could be due to increasing emotional engagement causing pupils to feel that the classroom environment is a 'safer' space where they are able to take more risks without fear of perceived failure, particularly if the teacher displays vulnerability or models behaviour such as apologizing for a mistake or 'not knowing something'.

Applying strategies to behavioural engagement does appear to show some increase in emotional, cognitive and behavioural engagement, however not to the same extent as emotional strategies. In this study, the lower the behavioural engagement at the start does not necessarily mean that there is the potential for the greatest increase. The class with worse initial behavioural engagement showed the greatest increase in behavioural engagement, suggesting that these two elements are linked and can directly impact one another, similar to the findings of Raufelder et al. (2016).

Focusing on increasing solely cognitive engagement yielded this least change overall, even from the high attaining class and thus, whilst beneficial in other ways such as developing higher order thinking skills, too much focus on cognitive aspects, such as questioning styles, could have negative impacts in other ways. Both classes showed a small decrease in emotional engagement, which based on this study and previous ones, could also cause a decrease in behavioural engagement over a prolonged period, therefore, focussing solely on increasing cognitive engagement could have a negative impact on engagement as a whole.

References:

Abry, T. et al., 2017. Classroom-level adversity: Associations with children's internalizing and externalizing behaviors across elementary school. Developmental psychology, 53(3), pp.497–510.

Archambault, I., Janosz, M., Fallu, J., & Pagani, L. S. (2009). Student engagement and its relationship with early high school dropout. Journal of Adolescence, 32, 651–670.

Australia, The Education Council (2011) *Australian Professional Standards for Teachers*. Available at: https://www.aitsl.edu.au/docs/default-source/teach-documents/australian-professional-standards-for-teachers.pdf

Bakhtin, Mikhail M. (1986). Speech Genres and Other Late Essays. Texas: University of Texas Press

Bakhtin, Mikhail M. (1993). Toward a Philosophy of the Act. Texas: University of Texas Press.

Baltodano, Marta. (2012). Neoliberalism and the Demise of Public Education: The Corporatization of Schools of Education. International Journal of Qualitative Studies in Education (QSE), 25(4), 487-507.

Blackmore, J. (2004). Leading as emotional management work in high risk times: The counterintuitive impulses of performativity and passion. School Leadership and Management, 24, 439–459

British Educational Research Association (2018) Ethical guidelines for educational research. Fourth Edition [Online]. Available from: https://www.bera.ac.uk/wp-content/uploads/2018/06/BERA-Ethical-Guidelines-for-Educational-Research_4thEdn_2018.pdf?noredirect=1 [Accessed 19th April 2019]

Betoret, Fernando Domenech, & Artiga, Amparo Gomez. (2004). Trainee Teachers' Conceptions of Teaching and Learning, Classroom Layout and Exam Design. Educational Studies, 30(4), 355-372.

Brown, J., Collins, A., & Duguid, P. (1989). Situated Cognition and the Culture of Learning. *Educational Researcher, 18*(1), 32-42.

Council of Ministers of Education, Canada (2010) Pan Canadian Assessment Program: Report on the Pan-Canadian Assessment of Mathematics, Science and Reading, Toronto, Ontario, 2010.

Centre for Education Statistics and Evaluation, NSW Department of Education. (2017). The role of student engagement in the transition from primary to secondary school (Learning Curve 19). Retrieved from https://www.cese.nsw.gov.au//images/stories/PDF/transition-primary_se condary_AA.pdf

Chater, M. (2015) *Policy Perspectives on Task Design*. In Thompson, I. (2015). Designing tasks in secondary education [electronic resource] : Enhancing subject understanding and student engagement (Taylor & Francis eBooks). New York, N.Y.: Routledge.

Connell, J. P., & Wellborn, J. G. (1991). Competence, autonomy and relatedness: A motivational analysis of self-system processes. In M. Gunnar & L. A. Sroufe (Eds.), Minnesota Symposium on Child Psychology: Vol. 23. Self processes in development (pp. 43–77). Chicago: University of Chicago Press.

Cordingley, P., Higgins, S., Greany, T., Buckler, N., Coles-Jordan, D., Crisp, B., Saunders, L., Coe, R. (2015) Developing Great Teaching: Lessons from the international reviews into effective professional development. London: Teacher Development Trust. [Online]. Available from: https://tdtrust.org/wpcontent/uploads/2015/10/DGT-Full-report.pdf [Accessed 11th April 2019]

Costa, P. T., & McCrae, R. R. (1992). Four ways five factors are basic. Personality and Individual Differences,13, 47–52.

Covell, K. (2010). School engagement and rights-respecting schools. Cambridge Journal of Education, 40, 39–51.

Crosby, R. (2018) To What Extent Does a Teacher's Personality and Individual Teaching Style Affect Pupil Motivation in Boys (Unpublished Master's dissertation). University of Oxford, Oxford, United Kingdom

Csikzentmihalyi, M. (1988). The flow experience and its significance for human psychology. In M. Csikzentmihalyi & I. S. Csikzentmihalyi (Eds.), Optimal experience (pp. 15–35). Cambridge, UK: Cambridge University Press.

Department for Education (2011). Teachers' Standards: Guidance for School Leaders, School Staff and Governing Bodies. pp.1-15.

Department for Education (2016) The Link Between Absence and Attainment and KS2 and KS4. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/509679/The-link-between-absence-and-attainment-at-KS2-and-KS4-2013-to-2014-academic-year.pdf (Accessed: 4th August 2020)

Dobber, Marjolein, Akkerman, Sanne F., Verloop, Nico, & Vermunt, Jan D. (2012). Student Teachers' Collaborative Research: Small-Scale Research Projects during Teacher Education. Teaching and Teacher Education: An International Journal of Research and Studies, 28(4), 609-617.

Eccles, J., Midgley, C., Wigfield, A., Buchanan, C., Reuman, D., Flanagan, C., & Iver, D. (1993). Development During Adolescence: The Impact of Stage-Environment Fit on Young Adolescents' Experiences in Schools and in Families. American Psychologist, 48(2), 90-101.

Edwards, A. 2005. "Relational Agency: Learning to Be a Resourceful Practitioner." International Journal of Educational Research 43: 168–182

Edwards, a. (2015) *Designing Tasks Which Engage Learners with Knowledge.* In Thompson, I. (2015). Designing tasks in secondary education [electronic resource] : Enhancing subject understanding and student engagement (Taylor & Francis eBooks). New York, N.Y.: Routledge.

Elliott, E., & Dweck, C. (1988). Goals: An Approach to Motivation and Achievement. Journal of Personality and Social Psychology, 54(1), 5-12.

Emmer, E. T., & Stough, L. M. (2001). Classroom management: A critical part of educational psychology, with implications for teacher education. Educational Psychologist, 36, 103–112.

Fall, Anna-Mária, & Roberts, Greg. (2011). High school dropouts: Interactions between social context, self-perceptions, school engagement, and student dropout. *Journal of Adolescence (London, England.), 35*(4), 787-798.

Finn, J. D. (1989). Withdrawing from school. Review of Educational Research, 59, 117–142.

Fredricks, Jennifer A., Blumenfeld, Phyllis C., & Paris, Alison H. (2004). School Engagement: Potential of the Concept, State of the Evidence. *Review of Educational Research, 74*(1), 59-109.

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and build theory of positive emotions. American Psychologist, 56(3), 218–226. doi:10.1037/0003- 066X.56.3.218

Gutman, & Schoon. (2018). Emotional engagement, educational aspirations, and their association during secondary school. Journal of Adolescence, 67, 109-119.

Hart et al, 2011, The Student Engagement in Schools Questionnaire (SESQ) and the Teacher Engagement Report Form-New (TERF-N): Examining the Preliminary Evidence, in Contemporary School Psychology, 2011, Vol. 15

Hursh, D. (2007) 'Assessing No Child Left Behind and the rise of neoliberal education policies', in American Educational Research Journal 44: 3, pp. 493–518, http://aer.sage pub.com/content/44/3/493.abstract, accessed 10th April 2019.

Kostogriz, Alex. (2012). Accountability and the affective labour of teachers: A Marxist–Vygotskian perspective. *Australian Educational Researcher, 39* (4), 397-412.

Levine, Thomas H., & Marcus, Alan S. (2010). How the Structure and Focus of Teachers' Collaborative Activities Facilitate and Constrain Teacher Learning. Teaching and Teacher Education: An International Journal of Research and Studies, 26(3), 389-398.

Li, Yibing, Lerner, Jacqueline, & Lerner, Richard. (2010). Personal and Ecological Assets and Academic Competence in Early Adolescence: The Mediating Role of School Engagement. *Journal of Youth and Adolescence, 39*(7), 801-15.

Li, Y., & Lerner, R. M. (2013). Interrelations of behavioral, emotional, and cognitive school engagement in high school students. Journal of Youth and Adolescence, 42(1), 20-32. doi:http://ezproxy-prd.bodleian.ox.ac.uk:2066/10.1007/s10964-012-9857-5

Lunenberg, M., & Samaras, A. P. (2011). Developing a pedagogy for teaching selfstudy research: lessons learned across the Atlantic. Teaching and Teacher Education, 27(5), 811e968

Mackie, Alan, & Tett, Lyn. (2013). "Participatory Parity", Young People and Policy in Scotland. *Journal of Education Policy, 28* (3), 386-403.

Mayer, R., (1994). K. Ann Renninger, Suzanne Hidi, and Andreas Krapp (Eds.), "The Role of Interest in Learning and Development" (Book Review). *American Journal of Psychology*, 107(2), p.319.

McCrae, R. R., & Costa, P. T. (1997). Conceptions and correlates of Openness to Experience. In R. Hogan, J. Johnson, & S. Briggs(Eds.),Handbook of personality psychology. Boston: Academic Press.

McGregor, Glenda, & Mills, Martin. (2012). Alternative Education Sites and Marginalised Young People: "I Wish There Were More Schools Like This One". *International Journal of Inclusive Education, 16*(8), 843-862.

Mills, M., & McGregor, G. (2014). Re-engaging young people in education: Learning from alternative schools. London: Routledge.

Moate, Josephine. (2014). Dialogic Struggles and Pedagogic Innovation. Pedagogy, Culture and Society, 22(2), 295-314.

Newmann, F, M. (1992). Student Engagement and Achievement in American Secondary Schools. New York: Teachers College Press.

Nguyen, T, Cannata, M, & Miller, J. (2018). Understanding student behavioral engagement: Importance of student interaction with peers and teachers. The Journal of Educational Research (Washington, D.C.), 111(2), 163-174.

Nisbet, J. and Shucksmith, J. (1986). What are Learning Strategies? London: RKP

Noddings, N. (1984) *Caring: A Relational Approach to Ethics and Moral Education.* University of California Press Ltd. London. 7-16

Noddings, N. (1986). Caring : A feminine approach to ethics and moral education. Berkeley: University of California Press.

Noddings, N. (1992) *The Challenge to Care in Schools: An alternative approach to education.* New York. Teachers College Press. 162-188

Noddings, N. (2005). Identifying and responding to needs in education. Cambridge Journal of Education, 35(2), 147-159.

Nunnally, J. (1978). Psychometric theory (2nd ed., McGraw-Hill series in psychology). New York ; London: McGraw-Hill.

Organisation for Economic Co-operation Development (OECD). (2003). Student Engagement at School [electronic resource]: A Sense of Belonging and Participation: Results from PISA 2000 (PISA). Paris: OECD Publishing.

Pagani, L., Fitzpatrick, C. & Parent, S. (2012) Relating kindergarten attention to subsequent developmental pathways of classroom engagement in elementary school, Journal of Abnormal Child Psychology, 40(5), 715–725.

Park, S., Holloway, S D., Arendtsz, A., Bempechat, J., & Li, J. (2012). What Makes Students Engaged in Learning? A Time-Use Study of within- and between-Individual Predictors of Emotional Engagement in Low-Performing High Schools. Journal of Youth and Adolescence, 41(3), 390-401.

Pring, R. (2013) The Life and Death of Secondary Education for All. Abingdon: Routledge

Ramli, N, H. Ahmad, S. Masri, M, H. (2013) Improving the Classroom Physical Environment: Classroom Users' Perception. Procedia – Social and Behavioural Sciences 101. 221 – 229.

Raufelder, D. Regner, N. Drury, K. & Eid, M. (2016) Does self-determination predict the school engagement of four different motivation types in adolescence?, Educational Psychology, 36:7, 1242-1263, DOI: 10.1080/01443410.2015.1008405

Regueiro, B., Núñez, J., Valle, A., Piñeiro, I., Rodríguez, S., & Rosário, P. (2018). Motivational profiles in high school students: Differences in behavioural and emotional homework engagement and academic achievement. *International Journal of Psychology,53*(6), 449-457.

Reeve, Johnmarshall, & Lee, Woogul. (2014). Students' Classroom Engagement Produces Longitudinal Changes in Classroom Motivation. *Journal of Educational Psychology, 106*(2), 527-540.

Reyes, Maria R., Brackett, Marc A., Rivers, Susan E., White, Mark, & Salovey, Peter. (2012). Classroom Emotional Climate, Student Engagement, and Academic Achievement. *Journal of Educational Psychology, 104*(3), 700-712.

Rosário, P. , Núñez, J. C., Vallejo, G. , Azevedo, R. , Pereira, R. , Moreira, T. , Fuentes, S. and Valle, A. (2017), Promoting Gypsy children's behavioural engagement and school success: Evidence from a four-wave longitudinal study. Br Educ Res J, 43: 554-571. doi:10.1002/berj.3271

Rotgans, Jerome I., & Schmidt, Henk G. (2011). Cognitive Engagement in the Problem-Based Learning Classroom. *Advances in Health Sciences Education, 16*(4), 465-479.

Ryan, R. & Deci, E., 2000. Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *American Psychologist*, 55(1), pp.68–78.

Said, Sahimi, & Rahman. (2015). Revealing Young Children and Teachers Behaviour through Active Participation in Deciding Classroom Layout. Procedia - Social and Behavioral Sciences, 168(C), 22-29.

Schraw, G., & Lehman, S. (2001). Situational interest: A review of the literature and directions for future research.

Skinner, Ellen A., & Belmont, Michael J. (1993). Motivation in the Classroom: Reciprocal Effects of Teacher Behavior and Student Engagement across the School Year. Journal of Educational Psychology, 85(4), 571-81.

Skinner, E., Kindermann, T., Furrer, C., & Marchand, G. (2008). Engagement and Disaffection in the Classroom: Part of a Larger Motivational Dynamic? Journal of Educational Psychology, 100(4), 765-781.

Skinner, E. A., Kindermann, T. A., & Furrer, J. (2009). A motivational perspective on engagement and disaffection: Conceptualization and assessment of children's behavioral and emotional participation in academic activities in the classroom. Educational & Psychological Measurement, 69, 493–525.

Sommer, R. (1977). Classroom Layout. Theory Into Practice, 16(3), 174-175.

Te Riele, Kitty, Mills, Martin, McGregor, Glenda, & Baroutsis, Aspa. (2017). Exploring the affective dimension of teachers' work in alternative school settings. *Teaching Education (Columbia, S.C.), 28* (1), 56-71.

Tuomo, E,. Lerkkanen, M,. Anna-Maija Poikkeus & Matti Kuorelahti (2015) The relationship between classroom quality and students' engagement in secondary school, Educational Psychology, 35:8, 963-983,DOI: 10.1080/01443410.2013.822961

Wang, Ming-Te, & Fredricks, Jennifer A. (2014). The Reciprocal Links Between School Engagement, Youth Problem Behaviors, and School Dropout During Adolescence. *Child Development, 85*(2), 722-737.

Wang, M. T., Chow, A., Hofkens, T., & Salmela-Aro, K. (2015). The trajectories of student emotional engagement and school burnout with academic and psychological development: Findings from Finnish adolescents. Learning and Instruction, 36, 57–65.

Wang, Ming-Te, Fredricks, Jennifer, Ye, Feifei, Hofkens, Tara, & Linn, Jacqueline Schall. (2019). Conceptualization and Assessment of Adolescents' Engagement and Disengagement in School. *European Journal of Psychological Assessment : Official Organ of the European Association of Psychological Assessment, 35*(4), 592-606.

White, K. (2016). *Teacher communication : A guide to relational, organizational, and classroom communication*. Lanham.

Yonezawa, S., Jones, M., & Joselowsky, F. (2009). Youth engagement in high schools: Developing a multidimensional, critical approach to improving engagement for all students. Journal of Educational Change, 10(2-3), 191-209. doi:http://ezproxy-prd.bodleian.ox.ac.uk:2066/10.1007/s10833-009-9106-1

Appendices:

1. **Copy of questionnaire completed by pupils.**

This questionnaire is part of a study being run through the University of Oxford which is looking at engagement in lessons and school, how engagement changes over time and whether teachers can do things to increase engagement.

Please complete this questionnaire about how you are at school and in lessons.

This questionnaire is 100% anonymous and the results are being used for the study and not by The Forest School, so please be totally honest. There is a 4-point scale for each section. Please write the number 1-5 in the space provided next to each statement.

1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly Agree

I am very interested in learning.	
I think what we are learning in school is interesting.	
I like what I am learning in school.	
I enjoy learning new things in class.	
I think learning is enjoyable.	

1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly Agree

I like my school.	
I am proud to be at this school.	
Most mornings, I look forward to going to school.	
I am happy to be at this school.	
I try hard to do well in school.	

In class, I work as hard as I can.	
When I'm in class, I participate in class activities.	

1 - Strongly Disagree, 2 - Disagree, 3 - Neutral, 4 - Agree, 5 - Strongly Agree

I pay attention in class.	
When I'm in class, I just act like I'm working.	
In school, I do just enough to get by.	
When I'm in class, my mind wanders.	
If I have trouble understanding a problem, I go over it again until I understand it.	
When I run into a difficult homework problem, I keep working at it until I think I've solved it.	

1 - Strongly Disagree, 2 - Disagree, 3 - Neutral, 4 - Agree, 5 - Strongly Agree

I am an active participant of school activities such as sports day, challenge week.	
I volunteer to help with school activities such as open evenings.	
I take an active role in extracurricular activities in my school such as sports teams/clubs or performing arts clubs.	

1 - Strongly Disagree, 2 - Disagree, 3 - Neutral, 4 - Agree, 5 - Strongly Agree

When I study, I try to understand the material better by relating it to things I already know.	
When I study, I figure out how the information might be useful in the real world. When learning new information, I try to put the ideas in my own words.	

When I study, I try to connect what I am learning with my own experiences.	
I make up my own examples to help me understand the important concepts I learn from school.	
When learning things for school, I try to see how they fit together with other things I already know.	
I try to understand how the things I learn in school fit together with each other.	
When learning things for school, I often try to associate them with what I learnt in other classes about the same or similar things.	
I try to see the similarities and differences between things I am learning for school and things I know already.	
I try to match what I already know with things I am trying to learn for school.	
I try to think through topics and decide what I'm supposed to learn from them, rather than studying topics by just reading them over.	
When studying, I try to combine different pieces of information from course material in new ways.	

Any other comments based on the statements?

2. Transcript of Interview with Teachers Prior to Study, Teachers assigned letters A-F for anonymity.

Q: Have you heard of the affective dimensions of teaching? If so, what do you understand by them?

E: Prior to this, I hadn't heard of them in a collective term, but generally I understand them as things within out practice that we have control over like strategies that we use in the classroom.

C: And perhaps also things that we can plan for? Like marking, feedback, behaviour management.

R: I feel like this is quite individua though, like each one of us will probably have our own set of 'affective dimensions' that we use
M: Yes, it sounds like a term to just umbrella all the things you can do to effectively manage your group.

Q: How do you use affective dimensions in your current practice? Consider wider aspects of your practice such as how you have chosen to lay your classroom out and whether you favour group or individual tasks.

F: Personally it depends on each of my classes individually, for example I have a class of only 12 which I use affective dimensions very differently to a class of 32.

E: I agree, I find that it changes a lot with class size but also class dynamics

B: That is so true, I remember yesterday when you and I [teacher E] were looking at seating plans yesterday, but even that is so tricky.

C: I would say that it is not set in stone as sometimes I will find the dynamic that I set up actually does not work, but overall I would currently say that I stick with things like seating plans as a way of maintaining control.

E: I agree, I find that I tend to base all of the things that I use AD for on behaviour management and moving more difficult pupils around

B: it is very interesting that we all use these things literally to maintain order. I think back to last year I had a really difficult class that I ended up not enjoying teaching, and in the end I went so strict I would describe how I taught them as 'chalk and talk'. I didn't enjoy that style of teaching but felt I couldn't do anything else with them and found myself in a place where I didn't want to engage with them. I realised at the end of the year I had probably killed [subject] for them as I had gone out of my way to be the most boring teacher possible in order to maintain strict order.

A: What about what the question said about room design? Personally I have tried a variety I think... a horseshoe shape, groups of tables, I am currently on rows. Obviously as that is something that we don't change for individual classes.

C: I would love to have group tables but as an NQT I don't yet feel ready to potentially have some pupils not facing directly front

F: Obviously being PE I don't have tables, but I insist on pupils being sat down during demonstrations as otherwise I find they don't focus on the instructions or demonstrations

B: I personally like groups, but I arrange them in 'L' shapes so that they are still facing front. That way group work can still happen

D: I always feel that my classroom is not conducive to group work so actually don't do as much purely because of the classroom layout. However, I do a lot of pair work

B: However, I think this idea of groupwork also comes down to whether the school encourages it, currently this school doesn't as what is being pushed is the used of a visualiser as a modelling tool, so that is a wone-way, teaching talking and modelling tool. Not group work or investigation. Its very individual and one-way

A: I find im using this visualiser just to try and get a mention in staff briefing, and if there is a learning walk or observations on I make sure to use it as that is what they have said that they want to see

F: As a practical subject I have actually been observed doing some absolutely brilliant group work which has a huge number of benefits, however I was pulled up for not using a visualiser. I do not think that group work is encouraged at all in this school which is said as its an essential life skill.

E: I agree, groupwork is also a great way to differentiate in the classroom, however, I find for me the biggest barrier to group work is the time is takes to plan it.

Q: When you have set group work, what has been the aim?

E: for me it varies, I find it works really well for revision, sometimes I will get pupils to do some research and presenting it to the class

C: for me mostly inestigative work, such as field work:

Q: Do you feel like your teaching practice, and how you use the affective dimensions of teaching, is affected by external constraints such as accountability measures/CPD/Ofsted pressures

(All teachers agreed)

D: I think I'd be a lot more creative with KS4, I find at the moment you cannot be in any way creative.

F: I agree, I know people wouldn't say this too publicly, but I think all of us teach KS4 to the exam.

C: I agree, if there weren't the exam and accountability pressures that we have I would teach much more creatively.

A: I will hold my hands up and say that I do that, I feel that there isn't enough time to cover the curriculum and find more interesting ways of delivering it.

B: I find that the exams are a problem, it is almost parrot learning, they are being tested on memory and rote learning more than practical critical thinking skills. And I find because of this, and how hard the work can be for the lower ability pupils, that it is a constant battle to keep them engaged and motivated. And it saddens me as I would actually like to add more fun in

E: and actually, those lower classes actually need that 'fun' aspect more than the others

C: The [subject] GCSE curriculum is so dull, its such a shame as it could be such a fun and engaging subject.

Q: If you could find a way to use the affective dimensions of teaching regularly, within your external pressures and requirements, would you?

F: definitely, I think part of the problem is that we don't actually have the time to consider or think creatively as to how to implement them.

(others agreed)

3. Transcript of Follow up Conversation with the Teachers After the Study., Teachers assigned letters A-F for anonymity.

Q: How did you find the study from your perspective as teachers?

A: I found a big different in my class, interestingly since we did the study, and then had the end of term after which I stopped actively putting emphasis on the interventions I chose to do, it seems like the class have gone back to how they were before. I definitely noticed an improvement when I was putting extra focus on the interventions.

B: Yes, I found that they were definitely a lot more focussed and engaged during the study, and now, he is more engaged than before I think, but still less than when I was actually implementing the interventions. I also found it really interesting for my class, as a class that I share with another teacher, how they made changes in progress and engagement with me doing the study and yet didn't change with the other teacher – so the impact is definitely linked to the specific teacher.

F: I think for me the interventions worked, or were most noticeable, with the lower ability students, but even though we're a mixed ability class the average ability is still fairly low. But I think they really appreciated the extra 1-1 time, I found that [pupil A, B and C] had a massive change in engagement, I don't think I have done anything else or if something has clicked for them, but those three pupils have had a dramatic change and are far more engaged than before the study.

E: I had quite a tricky first lesson back, which was also the first lesson I was going to be implementing the study, they boys were shouting out to me asking me to find certain page numbers for book quotes, so I modelled me not knowing and we learned together, so I think they felt like I was learning along with them which they liked. I also started asking pupils to check my spelling but in an informal way, so I'd write a word up and then say to a pupil, 'does that look right?' as if I was asking them how to spell.

Q: Were there any strategies that you feel worked especially well?

C: At first I found it quite tricky to find a 'driving question' or underpinning theme quite difficult to think of. But once I got the hang of it attaching relevance to the world outside of the classroom was hugely helpful with less engaged pupils as it gave the lesson more meaning to them individually. This was also reinforced by the driving question which subtly reminded pupils of cross-curricular skills being used within the lesson.

B: I think a lot of the boys were appreciative of me as the adult, and also being male, modelling vulnerability and admitting – or making it really obvious, when I had made a mistake and apologising for it. I believe this allowed pupils to feel less pressure in the classroom and that those pupils who have the attitude of 'if I don't try in the first place, then I can't fail' felt more encouraged to join in".

4. **The Strategies provided for teachers to chose from, teachers were informed which class was theirs.**

Analysis of weakest engagement type in each of your chosen classes:
Class 1: Cognitive
Class 2: Cognitive
Class 3: Emotional
Class 4: Emotional
Class 5: Behavioural
Class 6: Behavioural

Possible strategies linked to each engagement type. Pick one or two and let me know which you have chosen.

Cognitive Engagement Strategies:

Most research suggests that one of the main ways to deepen cognitive engagement is through framing questions in a particular way - one method is based on a revised version of Bloom's taxonomy, another is based on a 2-part questioning structure, 1 - using a 'driving question' followed by the 'essential questions'.

Questioning style 1: Bloom's revised.

This would perhaps suit a top set/high ability class more. This is based on Bloom's Taxonomy: remember, understand, apply, analyse, evaluate and create but using an additional focus in the form of 'knowledge dimensions', unlike the original taxonomy which is one-dimensional. The knowledge domains are as follows:

- Factual knowledge: knowledge of terminology, specific details and elements
- Conceptual knowledge, knowledge of concepts, categories, classifications, principles, generalisations, theories etc.
- Procedural knowledge: subsumes knowledge of skills, algorithms, techniques and methods associated with a particular discipline
- Metacognitive knowledge: knowledge about one's personal learning and thinking, self-assessment, self-monitoring strategies.

An example of how to implement this is planning to ask questions in a different ways, e.g.:
"Hurricane Katrina and the Deepwater Horizon blowout both wreaked havoc on the American Gulf Coast. Compare and contrast the social and economic problems resulting from these two disasters" VS a shorter set of questions e.g.: *"What were the results of Hurricane Katrina? In what ways did the Deepwater Horizon Blowout affect the residents of America's Gold Coast States"*

Both questions are requesting the same factual knowledge, however the way in which the first is posed is more likely to trigger student thinking and assist students in processing the factual information and thus moving it to long-term memory, therefore as a questioning style it is more rigorous and requires students to process it at a higher cognitive level.

I have a table I can give you of the taxonomy if that helps as a visual aid.

Questioning style 2: 'driving question' and 'essential questions'
Perhaps a little more suited to a lower ability or mixed set.

The purpose of the 'driving question' is to be an overarching question that essentially form the foundation of a project, topic or lesson. It is usually more conceptual in how it is formed, thus creating a link to learning outside of the obvious topic itself. The use of the driving question does mean, however, that the learning does need to be topic and enquiry based. Though this too should (in theory!) increase cognitive engagement.

Example: US History/English cross-curricular
Driving Question:
How far are you willing to go to achieve your dream?

Essential Questions:
How did the US make the transition from an agrarian society to an industrial nation prior to WWI?

Student response:
Students approached the task assuming the characters of families of 4 from various American backgrounds (cowboy, Native American, homesteader, miner, missionary, immigrant, outlaw etc) from a range of geographical locations. As content was learned students complied digital scrapbooks, created 'travel logs' telling of how their characters achieved their dreams and 'personal essays' (in English) reflecting on how the experiences of these pre-WWI Americans affected or influenced their own plans for achieving dreams and goals.

Emotional Engagement Strategies

Most research suggests that in order to increase emotional engagement a relational classroom environment needs to be established and there needs to be an emphasis on autonomy. This is a little more tricky to pin certain strategies on (as with cognitive engagement) but there are a number of "strategies" that can be considered:

- **One of the main ones:** giving students autonomy over their learning/creating a democratic aspect to lessons. Discussing with pupils their perspectives on classroom pedagogy and what works from them/what that they like/enjoy the most and adapting to this. This creates a different kind of relationship with the pupils, even a more 'friendly' dynamic, one in which they feel that their preferences are valued, yet maintains the teacher-student dynamic as it is geared towards pedagogical ends. You, as the teacher, still make all of the important decisions, however the increased sense of involvement in the learning processes from the student perspective causes pupils to feel more valued and should therefore increase emotional engagement.
- On a more 1-1 level, find small opportunities to discuss pupils plans/long-term goals (educationally or otherwise) and link learning and skills learnt in your lesson to this long term goal (increasing situational interest which should increase emotional engagement)
- Introducing tasks that require emotional responses (the scope for this will vary depending on the subject). But an example would be a debate of some sort or a moral dilemma situation.
- Allowing students to 'become the teacher', this supposedly works well with pupils that lack emotional engagement in lessons but are of higher ability (think Horsforth Quadrant High P8 Low Effort). Give pupils opportunities to share their ways of working with others/you/the rest of the class.
- Little things like the teacher showing aspects of vulnerability (thus an increased level of relatability between the teacher and student) - such as being open to admitting to making a mistake and modelling how to respond positively to making mistakes

In short increased opportunities for autonomous working coupled with increased rapport with the teacher should help pupils to increase their emotional engagement

Behavioural Engagement Strategies:

Due to the nature of behavioural engagement – in that it is the most easy type of engagement to observe as, unlike cognitive and emotional engagement, it is externally displayed. Therefore it is the most researched area of engagement and increasing/improving behaviour (although not always referred to as behavioural engagement) has been researched vastly.

- "Token Economy Technique": Token economy is a strategy of the positive reinforcement which can be applied as a driver for students implementing appropriate behaviour, including behaviour engagement. Basically, ridiculous amounts of positive reinforcement. This can be linked to extrinsic rewards as research suggests that with pupils with lower behavioural engagement extrinsic rewards can be key motivators. With boys specifically a sense of competition is often a good source of motivation.
- Increased opportunity for a 'sense of competence'. Smaller, more-frequent 'little victories' may help to increase behavioural engagement and intrinsic motivation.
- (If you don't do this already) a list of the main tasks on the first slide of your PPT for the lesson so that pupils know exactly what to expect throughout the lesson alongside the LO to tie the tasks and overall learning together – I observed in an alternative provision maths lesson and it worked very well
- As much 1-1 working as you can fit in – perhaps via 'live marking'
- Research by Nguyen et al. (2018) has found that pupils are at their least engaged when working individually. Try to vary tasks between group tasks, tasks that involve direct interaction with you the teacher and individual work.
- Classroom environment – easier said than done in a lab due to safety etc. But is the classroom environment one that celebrates achievement at all levels? And celebrates learning at the forefront. E.G. examples of work on the walls – even the scruffier looking pieces. Perhaps a 'working wall' where pupils pin work each lesson. Once again observed in the AP setting as a starter – 'number of the day'. Pupils started on the first box and had to follow the steps, e.g. "number of the day = 997. 1. Add 367. 2. Divide it by 2. 3. Now multiply it by 9. Etc. When students completed the work and it was live marked by the teacher they pinned it to the wall regardless of how scruffy the work looked.
- Find opportunities to make learning as active as possible rather than passive – any increased opportunities for practicals etc?

5. **Feedback forms from teachers following completion of the study. (Names redacted for anonymity, otherwise no changes).**

Engagement Strategy Focus Group Feedback

Names are only required for my own identification purposes and will not be published in the findings of the study.

Name: Subject: PE

Class: yr 9 Ability range: mixed

Which engagement area was your focus: Emotional

Which Strategies did you implement? (Please list)

1. Increased opportunity for a 'sense of competence'.
2. "Token Economy Technique":
3. Allowing students to 'become the teacher',
4.
5.

Have you noticed a difference in the engagement level of your class since implementing the strategies? Feel free to give any student-specific examples, once again these will be anonymised.

There has been a slight improvement in some of the engagement of students. There is a sense of apathy with some of them, backed up by conversations with parents about how they (the student) are not massive fans of the subject. Overly praising effort and outcomes, regardless of the perceived quality did seem to enable the students to become more involved, potentially removing any fear of failure, or at least reducing it. Asking students to police their peers behaviour and engagement has helped with some of the least engaged. Again this may be just giving them a sense of value in the lesson.

Did you find any of the strategies to be more/less successful than others? If so, why?

The first 2 strategies above worked well in most settings, but particularly in individual activities where the students outcome was in their control. In group activities this was less so, Almost as though if they disengage the absolve themselves of responsibility if there is a perceived failure.

Engagement Strategy Focus Group Feedback

Names are only required for my own identification purposes and will not be published in the findings of the study.

Name: Subject: ____English_____

Class:_10 _____ Ability range: High/med/**low**/mixed

Which engagement area was your focus: Cognitive / **Emotional** / Behavioural

Which Strategies did you implement? (please list)

1. Modelling, particularly modelling vulnerability
2.
3.
4.
5.

Have you noticed a difference in the engagement level of your class since implementing the strategies? Feel free to give any student-specific examples, once again these will be anonymised.

The boys were much more engaged by the end of the trial and I noticed a dramatic improvement in [redacted]'s attitude in lessons. Interestingly the boys' engagement and behaviour was worse with the other teacher who wasn't implementing any of the engagement strategies.

Did you find any of the strategies to be more/less successful than others? If so, why?

Modelling was extremely successful. When I was wrong I would apologise or think aloud about how I may rectify the mistake and the boys benefitted from seeing this. I also think the low ability boys benefit from modelling with a male teacher as it provides modelling of skills which are not typically "masculine".

Engagement Strategy Focus Group Feedback

Names are only required for my own identification purposes and will not be published in the findings of the study.

Name:_ Subject: _English_

Class: 11 Ability range: **High**/med/low/mixed

Which engagement area was your focus: Cognitive / Emotional / Behavioural

Which Strategies did you implement? (please list)

1. Higher order questionning
2. High level modelled answers
3. Varied styles of teaching delivery – independent working and lecture style lessons.
4. Using top band of mark scheme to inform how to improve an answer (DIRT)
5.

Have you noticed a difference in the engagement level of your class since implementing the strategies? Feel free to give any student-specific examples, once again these will be anonymised.

Students responded positively to the 'lecture' style lessons, in which information was disseminated with pace. It was designed to replicate a quick-fire revision session. Feedback from these lessons were that they enjoyed the pace and the challenge to 'keep up'; to cognate the information.

The use of modelling high level answers has provided students with something tangible to refer to when producing their own responses. They now know exactly what they have to do to be achieving in the top band of the mark-scheme.

Did you find any of the strategies to be more/less successful than others? If so, why?

As aforementioned, I found the modelling particularly helpful when guiding students on where to pitch their work. They could then tangibly see what a 'level 4' answer looked like; using examples from the exam board. This has assisted students by encouraging them to think more perceptively or in a conceptual manner.

If you were to take part in this study again what would you change?

I would not change anything – I think it's been really clear to follow and understand

Engagement Strategy Focus Group Feedback

Names are only required for my own identification purposes and will not be published in the findings of the study.

Name: Subject: Science

Class:11 Ability range: low

Which engagement area was your focus: Behavioural

Which Strategies did you implement? (please list)

1. Used raffle tickets to give praise
2. Outline of lesson on board – simple steps that we were going to do in the lesson
3. More group work that was clearly signposted
4. Use of check backs through lesson to see where we had got to and show progress
5. Increased used of practical activities and different activities that were not just textbook work or completing sheets etc.

Have you noticed a difference in the engagement level of your class since implementing the strategies? Feel free to give any student-specific examples, once again these will be anonymised.

Some pupils have remained disengaged.

Some pupils have been particularly engaged when we have done the group work in a practical activity; these students previously would not necessarily do the practical and definitely would not have got results or analysis completed but were more engaged when working in their group.

Engagement of all increased when I use activities which were different from normal – rather than just answering a set of questions getting them to do this in a way that meant they didn't have to answer them all but got to see all the questions.

However I don't think engagement has increased consistently – I think I would need to implement these strategies both more consistently and for a longer length of time as we have mock exams in the middle of this.

Did you find any of the strategies to be more/less successful than others? If so, why?

Using raffle tickets was particularly good – the boys seemed motivated by this and liked the immediate feedback that they were doing good things. I only tried these a couple of times so it is something I need to use more consistently.
Having the list of what we going to do in the lesson helped the boys keep focus – they knew what they had to get through and made progress. This also made me keep referring to the progress they had made and highlight the learning they have done.
Using a single sheet per group during a practical worked with some student who normally would not write things down – as they didn't have to work independently and they enjoyed being able to talk to others about their ideas and some students turned into teachers in their groups.

If you were to take part in this study again what would you change?

- I would use some more systems of praise; and implement these more consistently in the lessons
- I would also develop a way for the pupils to track their own progress through the lesson and over several groups of lessons.

Engagement Strategy Focus Group Feedback

Names are only required for my own identification purposes and will not be published in the findings of the study.

Name: Subject: Geography

Class: 9 Ability range: Mixed

Which engagement area was your focus: Cognitive

Which Strategies did you implement? (please list)

1. More enquiry-based learning / questioning style 2
2. Attaching relevance to outside world/practical application of lesson content
3. Breaking down questions / questioning style 1
4. Working 1-1 with pupils where possible

Have you noticed a difference in the engagement level of your class since implementing the strategies? Feel free to give any student-specific examples, once again these will be anonymised.

[redacted]'s engagement has become much better, as he can now access the work much easier, particularly because of the questioning style 1 strategy. I think overall class engagement is better, because of the strategies but also because pupils have began to trust me more as a teacher (being new to the school).

Did you find any of the strategies to be more/less successful than others? If so, why?

I think the best strategy to boost their engagement was breaking down the questions - particularly for the lower ability students in the class. The attaching relevance to the outside world was hugely helpful - particularly with the topic of weather and climate I was much more conscious to link descriptions to actual weather we see and getting them to tell me about the weather on different days. This was particularly good because it is the hardest GCSE topic and previously when I taught it it was not clear what descriptions linked to what weathers.

I found that questioning style 2 was actually harder to implement than expected, I think just because it forces you to change the way that the lesson is framed, which is positive just takes more careful consideration. I think this for me would have been more helpful if I got to grips with it more quickly.

If you were to take part in this study again what would you change?

Nothing!

Engagement Strategy Focus Group Feedback

Names are only required for my own identification purposes and will not be published in the findings of the study.

Name: Subject: English

Class: 10 Ability range: low-mid

Which engagement area was your focus: Emotional

Which Strategies did you implement? (please list)

- One on one – I found ways to link the purpose of the tasks to their own goals.
- Gave pupils opportunity to show and choose their own way of working/ presenting information.
- Showing vulnerability e.g.- not knowing where all the quotes were in the book to show that I had to also go through each chapter to identify them (If I can do it, you can to)-

Have you noticed a difference in the engagement level of your class since implementing the strategies? Feel free to give any student-specific examples, once again these will be anonymised.

I found that students responded better when they knew that a task could be complete in a range of ways e.g.- in bullet notes, as a poster, as a paragraph etc.

Did you find any of the strategies to be more/less successful than others? If so, why?

Clearly explaining how the tasks were benefiting them in terms of their long term goals, explaining that in order to be successful you must be resilient – having ago at the work even if it was challenging. Pupils reading to the class to gain confidence in addressing an audience – many job roles involve public speaking, interviews etc. Expressing the importance of IL in terms of meeting deadlines and becoming an organised person who can stick to a schedule.

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