UNIVERSITY OF CAMBRIDGE
Faculty of Education

ISSN 2043-8338

Journal of Trainee Teacher Education Research

"How do my feelings affect my learning?" – A study into Year 4 pupils' views on the relationship between their emotions and their academic success

Grace Hinton

(PGCE General Primary, 2021-2022)

email: graceellenrosehinton@gmail.com

Abstract

It is well documented that high levels of emotional intelligence are linked to greater academic achievement. However, there is a lack of research investigating this relationship in primary-aged children. Furthermore, there is also the need to investigate ways in which to support pupils in developing their emotional intelligence to promote positive wellbeing, with an essential source of evidence being through asking pupils themselves. Thus, through a mixed-methods approach, this research seeks to investigate the relationship between Year 4 pupils' emotional intelligence and academic achievement, along with their perspectives on support within school to promote emotional intelligence, and in turn, positive wellbeing.

https://doi.org/10.17863/CAM.100012

"How do my feelings affect my learning?" – A study into Year 4 pupils' views on the relationship between their emotions and their academic success

Grace Hinton

Introduction

Within the literature, it is well understood that emotions play an important role in children's academic outcomes, with positive emotions generally being linked to effective learning and negative emotions being associated with impairments to learning (Pekrun, 2014). Given the impact that negative emotions can have on learning success, researchers have investigated factors which may help to mitigate these effects, with one of these factors being emotional intelligence. Emotional intelligence refers to one's ability to perceive, understand and manage both their own and others' emotions (Goleman, 2020), and has been linked to a variety of positive outcomes including increased physical and mental health, improved relationships, and greater academic achievement (Grewal & Salovey, 2006). Thus, given these benefits, it is pertinent that teachers are able to support children in developing their emotional intelligence throughout their time in school.

Whilst there is a vast amount of research exploring the relationship between emotional intelligence and academic success, there is a lack of research exploring this relationship within primary-aged children, meaning one cannot yet be confident in making generalised conclusions about this relationship. Further to this, there is a lack of research investigating pupils' perspectives on the relationship between their emotions and their learning success, and what they believe to be most supportive for their emotional wellbeing within school. Given that engaging with pupils' perspectives has previously been found to result in positive, successful changes within school (Flutter, 2007), it is essential to understand pupils' thoughts and beliefs about a topic as pertinent as pupils' emotions. Thus, within this research, the following research questions (RQs) will be investigated:

RQ1 How important do children perceive their emotions to be in relation to their academic success?

RQ2 Is there a relationship between children's trait emotional intelligence and their academic success?

RQ3 What do children perceive to be the most effective source of support within school, for helping them to identify and manage their emotions?

Literature Review

Emotions and academic success

The term 'emotion' is not clearly defined, and is commonly explained by referring to a list of different emotions, such as sadness, anger and happiness (Cabanac, 2002). However, the general consensus among researchers is that emotions are psychological states which arise due to neurophysiological changes (Lindsley, 1951). Whilst emotion is not clearly defined within the literature, the range of different emotions which one can experience is thought to be well understood; human emotions are believed to be divided into positive emotions, such as happiness, excitement and joy, and negative emotions, such as sadness, anxiety, and anger. Whilst different emotions can have implications for various aspects of life, one important aspect of life in which emotions can have huge implications is learning; effective learning has been found to be contingent on the emotional state of an individual, through a range of direct and indirect mechanisms (Sylwester, 1994).

Experiencing positive emotions whilst learning can have a beneficial impact on the learning process, and, in turn, can result in improved academic success (Carmona-Halty et al., 2021). Positive emotions in the classroom can help to promote divergent, creative, and flexible thinking, which enhance one's ability to complete problem-solving tasks, as well as increasing motivation which drives learning success (Hinton et al., 2008; Pekrun et al., 2002). The impact of positive emotions on learning has been demonstrated through a range of neuroimaging research. For example, using functional magnetic resonance imaging (fMRI), Wang et al. (2017) found that positive emotions were able to induce higher levels of cognitive flexibility among subjects, an important executive function (cognitive process) which provides the ability to consider multiple ideas or concepts simultaneously, and plays an essential role in problem-solving tasks. Additionally, experiencing positive emotions in

the classroom has been found to promote higher levels of resilience and motivation, and can facilitate pupils' recovery from high-stress situations (e.g., tests), meaning children are better equipped to deal with and overcome academic challenges and setbacks within school (Hinton et al., 2008; Pekrun et al., 2002).

Interestingly however, whilst most positive emotions are linked to more effective learning and greater chance of academic success, there is some research suggesting that a few positive emotions, such as excitedness, exuberance and elatedness, can have a negative impact on academic success (Valiente et al., 2012). Researchers suggest that positive emotions such as these, which are considered 'high-arousal' positive emotions, can disrupt key aspects of learning such as concentration, thus impacting negatively on academic success. Nevertheless, other positive emotions, such as happiness and relaxedness, which are considered medium- and low-arousal positive emotions respectively, can result in improvements to factors such as concentration, motivation, and resilience, which in turn increase the effectiveness of learning and chances of academic success (Pekrun et al., 2002; Valiente et al., 2012). Therefore, this suggests that pupils experiencing low- and medium-arousal positive emotions within the classroom is advantageous for learning efficacy, and thus, will result in increased improvements in their academic success.

On the contrary, negative emotions, such as anger, fear, and stress, are generally understood to have a detrimental impact on learning, and in turn, academic success (Valiente et al., 2012). Motivational processes, which are a key aspect of pupils' learning success, are thought to partially mediate the relationship between emotions and academic success (Mega et al., 2014; Valiente et al., 2012). This means that changes to one's emotion, leads to changes in their motivation, and in turn, this change in motivation impacts on their academic success. Research shows that negative emotions such as anxiety can impact on pupils' academic success through this mechanism; these negative emotions cause a reduction in pupils' motivation, and in turn, this reduces their academic success (Valiente et al., 2012), showing that negative emotions can have a detrimental impact on pupils' learning and academic outcomes.

In addition to this, negative emotions can also impact on pupils' memory processing when exposed to new content. Research suggests that when pupils experience certain negative emotions, such as anxiety, pupils are more likely to rely on surface learning approaches rather than deep learning approaches (Trigwell et al., 2012). For example, in a qualitative study by Rowe and Fitness (2018)

university students were interviewed to understand the impact of negative emotions on their learning and achievement. Thematic analysis revealed that experiencing negative emotions, such as stress and anxiety, was associated with increased use of surface learning approaches, where students relied upon rote learning and failed to make links by relating new knowledge to previous knowledge, strategies which are well understood to be less effective for conceptual understanding and long-term learning. Deep learning approaches, where pupils consider the meaning of information, make connections to previous knowledge and approach content critically, are shown to be vastly more effective for long-term learning outcomes and academic achievement (Trigwell et al., 2012). Therefore, whilst this study sample does not include primary school-aged children, it may be evidence to support the idea that negative emotions may be detrimental to the learning process and limit pupils' academic success.

Furthermore, negative emotions have also been found to impact on pupils' self-regulatory skills, skills which are key for effective learning and strong academic outcomes (Pekrun, 2014; Zimmerman, 1990). Self-regulated learning refers to learners who are "metacognitively, motivationally and behaviourally active in their own learning", and further their knowledge and understanding by directing their own efforts rather than relying on input from others (Zimmerman, 1989, p.329). Research shows that negative emotions, such as boredom, and hopelessness, are negatively associated with self-regulated learning, whereas positive emotions, such as enjoyment and hope are positively associated with self-regulated learning (Linnenbrink, 2007; Mega et al., 2014), meaning that pupils who experience negative emotions are less likely to be self-regulated learners. Given that being a self-regulated learner is one of the strongest predictors of academic achievement (Paris & Paris, 2001; Pintrich & De Groot, 1990), experiencing negative emotions can be detrimental to pupils' learning, and thus, their academic achievement.

Interestingly, however, as with positive emotions, researchers argue that experiencing certain negative emotions in some contexts can sometimes be beneficial rather than detrimental (Valiente et al., 2012). For example, when some pupils feel stressed, this stress can result in increased motivation to avoid failure. Likewise, if a pupil experiences sadness because of a 'bad' score or difficult work, researchers argue that this can help motivate pupils, to 'bounce back' and try even harder than before. Despite this, researchers conclude that the impact of negative emptions on learning success is likely to be dependent on individual differences and the severity of the negative emotion: if only a low-level of arousal is experienced, this can be beneficial for some pupils, however, medium- or high-levels of arousal will impair learning for most pupils, and thus, will be detrimental for academic achievement

(Rowe & Fitness, 2018). Given these findings, it would be interesting to investigate pupils' perspectives of this relationship between their emotions and their learning success, and whether they identify both advantages and disadvantages of positive and negative emotions.

Many have theorised about the mechanistic basis of the relationship between emotion and learning, but the current consensus is that of Fredrickson's (2001) broaden-and-build model. This model suggests that positive emotions have a beneficial impact on learning and academic outcomes due to broadening an individuals' mindset/awareness, which promotes higher levels creative thinking and novel ideas, which support children with their learning (Fredrickson, 2004). Likewise, the model suggests that negative emotions are, for the most part, detrimental for learning and academic outcomes, due to having a narrowing effect on one's mindset which results in a reduced ability to think creatively and come up with novel ideas. Thus, through this mechanism, the model highlights the impact that negative emotions may have on academic success.

Emotional intelligence and academic success

Given the impact that certain emotions can have on academic achievement, it is essential to understand ways of mitigating any detrimental effects. One way of doing so, is through emotional intelligence. Whilst there are many variances across emotional intelligence definitions, broadly, emotional intelligence is understood to be the ability to identify, regulate and express one's emotions (Goleman, 2020). Individuals high in emotional intelligence are better able to identify both their own emotions, and the emotions of those around them, and are better able to manage and regulate these emotions to control their associated behavioural response (Salovey & Grewal, 2005). Conversely, those who are low in emotional intelligence, have trouble identifying both their own and others' emotions, and lack in ability to regulate and manage their emotions, which in turn, impacts on their associated behavioural responses. Researchers argue that emotional intelligence can be split into two distinct aspects: trait emotional intelligence and ability emotional intelligence (Pérez-González et al., 2020; Petrides et al., 2008). Trait emotional intelligence refers to one's emotional dispositions and self-perceptions of identifying, managing, and regulating their own and other's emotions, and is measured through self-report. Conversely, ability emotional intelligence refers to objective measures of one's emotional-cognitive abilities, which is measured objectively through performance testing.

There is a plethora of research, among both adults and children, suggesting that those high in emotional intelligence experience a range of benefits, including improved physical health, well-

being, and relationships (Grewal & Salovey, 2006). Specifically, research highlights the importance of emotional intelligence for children; high levels of emotional intelligence in children has been associated with improved psychological well-being, and an increase in skills necessary for coping with challenging and unpredictable situations, both within and outside of school (Puertas-Molero et al., 2020). Furthermore, there is a vast amount of research suggesting a positive relationship between emotional intelligence and academic success, where children who are better able to identify, manage and express their emotions (high emotional intelligence) experience greater academic achievement than those with lower levels of emotional intelligence. However, due to methodological difficulties with designing suitable questionnaires, most of the research investigates emotional intelligence and academic achievement in secondary school pupils, with limited research among primary school-aged students (Sánchez-Álvarez et al., 2020). Nevertheless, there are still some studies which include primary-aged children within their samples, which will be discussed.

In one study, researchers investigated the relationship between trait emotional intelligence and academic achievement in 204 children aged 9 to 13, from a range of schools across Pakistan (Malik & Shujja, 2013). Trait emotional intelligence was measured though self-report questionnaires, and academic achievement was measured through pupils' percentage mark on an end of year test; pupils with a percentage mark of 65% or above were grouped as 'high' academic achievement, and pupils with a percentage mark of 40% or below were grouped as 'low' academic achievement. Researchers found that pupils' emotional intelligence was significantly and positively related to their academic achievement, meaning that pupils with higher levels of emotional intelligence also experienced greater academic achievement. This finding suggests that having high levels of emotional intelligence can be advantageous for pupils and can result in improved academic outcomes. However, given that the sample is limited to 204 pupils aged between 9 to 13 across schools in Pakistan, these findings may be somewhat limited and cannot necessarily be generalised to explain the relationship between emotional intelligence and academic achievement in a UK population. Nevertheless, these findings may provide some indication to suggest that emotional intelligence can play an important role in pupils' academic outcomes.

Additionally, Pozo-Rico and Sandoval (2020) investigated whether teachers incorporating emotional intelligence training into their teaching had an impact on their pupils' academic achievement. Researchers assigned 74 primary school teachers and their 2069 pupils into three groups: in group one, teachers were trained to implement emotional intelligence into their teaching using face-to-face

methods; in group two, teachers were trained to implement emotional intelligence into their teaching using an online platform; and in group 3, teachers received no training and did not implement emotional intelligence within their teaching. Pupils' academic achievement was measured by providing pupils with an average grade, based on their school performance data across a large range of curriculum subjects. Researchers found that when teachers implemented emotional intelligence training into their teaching, either through face-to-face methods or online methods, pupils experienced significant improvements in their academic achievement, compared to the control group, who experienced no significant increase in their academic performance. Therefore, this finding supports the notion that children who are high in emotional intelligence also experience greater academic achievement than children with low levels of emotional intelligence. Thus, this finding highlights the importance of teachers helping children to develop their emotional intelligence, both through their teaching and through the classroom environment they cultivate.

Despite this, the relationship between children's levels of emotional intelligence and their academic achievement is not always clear cut, with some studies finding either weak or nonsignificant relationships between these two variables. For example, Mavroveli and Sánchez-Ruiz (2011) investigated the relationship between trait emotional intelligence and a range of school outcomes, including academic achievement and social competence, in 565 children aged between 7 and 12 across three state schools in England. Pupils were administered a range of questionnaires to measure the various variables, including the 'trait emotional intelligence questionnaire-child form' (TEIQue-CF) to measure pupils' trait emotional intelligence (Mavroveli et al., 2008). Academic performance was measured using pupils' assessment scores for reading, writing and maths. For pupils in Year 4, 5 and 6, researchers found a non-significant relationship between children's trait emotional intelligence and their academic performance, suggesting that pupils who are more emotionally intelligent experience no advantages in regard to their academic achievement compared to pupils who are low in emotional intelligence. Interestingly, however, researchers found a significant positive relationship between Year 3 pupils' emotional intelligence and their academic achievement in mathematics. Whilst this could be due to emotional intelligence operating differently in younger pupils as the authors suggest, this finding could also be due to emotional intelligence questionnaires such as the TEIQue-CF being unable to accurately measure trait emotional intelligence in children aged below 8 years of age. Additionally, whilst pupils' emotional intelligence levels were measured through questionnaires at their current age, scores for pupils' academic achievement were generated retrospectively, by using their scores from their Year 2 SATS tests. Given that these scores reflect

their academic performance from *at least* two years ago, it is likely that children will have experienced changes in their academic abilities since then, meaning it may be unfair to compare pupils' emotional intelligence and academic performance from varying stages of development. Thus, given the mixed findings between the relationship between children's emotional intelligence and their academic achievement, more research is required to establish whether greater emotional intelligence is associated with improved academic achievement, and if so, the ways of helping pupils develop their emotional intelligence within school.

Supporting pupils' emotions within school

Given the effect that varying emotions can have on pupils' learning, and the impact that emotional intelligence may be able to have on moderating these effects, it is essential to understand ways in which children's emotions and well-being can be supported throughout their time in school. Over the past decade, schools have focused heavily on improving resources and support for pupil well-being, both in school policies and in general classroom resources. With the COVID-19 pandemic, and the difficulties that pupils faced within this time, it has become even more essential to understand how we can best support pupils' emotional well-being within school. Within school, teachers can support children's emotional well-being by helping children to develop their emotional intelligence; learning how to identify their own and others' emotions, and how to manage them effectively. Whilst teachers can do this by teaching pupils explicitly, there are also a variety of activities and resources that can be implemented day-to-day to support pupils. Some of the most common approaches include circle times, practising mindfulness, book corners, feelings displays, playing mindful music, and through physical resources such as a 'worry box' (Hall, 2010).

Whilst limited, there is some research which explores the benefits and effectiveness of some of these various techniques in promoting emotional intelligence within the classroom. For example, research shows that circle time can be an effective way of teaching emotional intelligence, by giving children the opportunity to discuss their own and others' emotions, how they affect them, and with the support of the class teacher, explore different ways of managing these emotions (Collins, 2013). Furthermore, mindfulness practice within primary school has been shown to be an effective way of developing pupils' emotional intelligence, by helping pupils to develop self-awareness and the regulation skills required to manage their own and others' emotions (Weare, 2013). Despite this, there is currently very little research which explores pupils' perspectives on these various methods of supporting

emotional wellbeing; how pupils feel about these different approaches, how effective pupils perceive these approaches to be, and whether pupils feel there is anything else which could help support them within school. Within the limited research available, one study carried out semi-structured interviews with children aged between 4 and 11, to explore their views on current strategies within school to support and promote emotional well-being (Hall, 2010). Across the case study sample, there were some common themes which emerged, relating to strategies and resources which children felt supported them emotionally throughout the school:

- Outdoor spaces, equipment, and toys
- Having adults and other children to 'talk' to about their feelings
- Adults and children having a good sense of humour to 'cheer them up'
- Worry box to share their worries and concerns

Therefore, these findings suggest that children value the importance of being able to discuss their feelings with a range of people within the school, and appreciate the positive opportunities within school (e.g., toys/equipment or having a laugh with adults) which support their emotional well-being. However, given that there is very limited research on pupils' perspectives, and this study consisted of only 18 children from a single school, it would be premature to generalise these findings to explain the perspectives of all primary-aged pupils. Thus, to best understand how schools can support pupils' emotional well-being, more research exploring pupils' perspectives is required.

Pupils' perspectives

To date, research has been focused on measurable relationships between emotions and learning, rather than understanding how pupils perceive their emotions and how they affect their learning success. Whilst there are several studies investigating both how various emotions affect learning, and the relationship between emotional intelligence and academic achievement, these have mainly been in adults or in adolescents, with very limited research in primary-aged children. Further to this, there is currently extremely limited research which investigates pupils' perspectives on sources of support within school. Given the emerging research on emotional intelligence, which shows that being able to identify, understand and manage one's and others' emotions can have immense benefit for a range of outcomes including academic success, it is essential to investigate first-hand what children currently understand about their emotions, how their emotions impact on their learning, and whether

they feel current sources of support within school are effective. Researchers have found that when pupils are asked for their perspectives, their thoughts and opinions can often differ vastly from those of school staff, and when schools have acted upon pupils' feedback, positive school improvements have been made (Flutter, 2007). Thus, the current research will focus on exploring pupils' perspectives on these topic areas, to gain a first-hand, in-depth insight into pupils' thoughts on their emotions, learning success, and sources of support within school.

Methodology

Research Design

This research is concerned with pupils' perspectives on the relationship between their emotions and their learning success. More specifically, this research aims to explore whether pupils perceive that their emotions impact on their learning, as well as their perspectives on resources within school which help them identify and manage their emotions. To contribute towards the current and uncertain literature, this study will also quantitatively assess whether pupils with higher emotional intelligence also experience greater academic achievement. To investigate these various research questions, this study will utilise case study methodology. Whilst case studies involve small samples, making it difficult to make generalisable conclusions, they provide deep insights into complex issues which cannot be achieved through large-scale quantitative studies (Taber, 2013), thus, making it the more suitable research design for investigating pupils' perspectives. Additionally, this case study will take a mixed-methods approach, due to its ability to generate data which contains a greater depth and breadth of information, of which is not feasible when using a single approach, such as a solely quantitative or qualitative approach (Almalki, 2016).

Participants

This case study will be conducted in a primary school in Cambridgeshire with Year 4 pupils. Given that most studies discussed within the literature review consists of pupils within key stage 2, and questionnaires measuring emotional intelligence appear most reliable for children aged 8 and above (Mavroveli et al., 2008), this research will be conducted with Year 4 pupils, aged between 8 and 9. To gain parental consent, letters outlining what the study involves will be sent home to parents/carers for them to read and accept. Whilst consent is the responsibility of the parents/carers, it is still good

research practice to ask children whether they would be happy to take part (Fargas-Malet et al., 2010). Hence, children will also be asked to tick to confirm their participation within the study. All pupils who have been provided parental/carer consent will be asked to complete a questionnaire to measure their emotional intelligence. When using a limited sample with 30 or fewer participants, it is suggested to include all participants within the sample to increase internal validity (Krejcie & Morgan, 1970). To ensure a representative sample, this case study will utilise random stratified sampling to generate representative groups to interview. Upon completion the questionnaire, participants will be split into 'high emotional intelligence', 'average emotional intelligence', and 'low emotional intelligence'. Two participants from each of these strata will then be selected at random to participate in the semi-structured interview. By utilising random sampling, this ensures that pupils with varying levels of emotional intelligence are interviewed, increasing the probability of gaining a broad range of perspectives on pupils' emotions and their learning. In this way, random stratified sampling will help to increase the external validity of the sample, making the findings more meaningful. Moreover, by randomly selecting two pupils from each stratum, this prevents selection bias, which occurs with non-random sampling (Cohen et al., 2017).

Data Collection

Questionnaires

All pupils will be administered the trait emotional intelligence questionnaire, TEIQue-CF (Psycometriclab, n.d.), a questionnaire which research shows can reliably assess emotional intelligence of children aged between 8 and 12, generating a reliability score of $\alpha = 0.73$ (Mavroveli et al., 2008). A pre-existing questionnaire was chosen due to having already been tested on various samples of children, meaning that we can be confident that it is a valid and reliable scale. TEIQue-CF consists of 75 items, measured on a 5-point Likert scale, ranging from 'disagree completely' to 'agree completely'. Questionnaires will be scored and divided into strata; 'high emotional intelligence', 'average emotional intelligence', and 'low emotional intelligence'. Two participants from each of strata will then be randomly selected for interview. To ensure anonymity, children will not be asked to write their names on their questionnaire. Instead, questionnaires will be numbered, and only the class teacher will be aware of the child corresponding to a particular questionnaire. This method also prevents selection bias, which could result in a non-representative sample (Cohen et al., 2017).

Pupils' academic scores

To investigate the relationship between pupils' level of emotional intelligence and their academic achievement, summative scores reflecting pupils' academic ability need to be generated. To do so, teachers will be asked to provide an average of pupils' English and mathematics end of unit/term/half term assessment scores. This way of generating academic scores has been chosen due to methodological issues in previous research with using Year 2 SATS scores, as previously discussed. Assessment scores will then be treated as a continuous variable, observing whether higher levels of emotional intelligence are correlated with higher academic scores based on an average of pupils' English and mathematics scores.

Semi-structured interviews

Upon completion of the questionnaire, two pupils from each stratum will be randomly selected to interview. If a child is selected who the class teacher deems would be unable to participate in the interview, another child will be randomly selected as a replacement. Whereas questionnaires in this study will focus on quantitatively assessing the relationship between pupils' level of emotional intelligence and their academic achievement, semi-structured interviews will be utilised to explore pupils' in-depth understanding of their emotions, learning, and how they perceive the relationship between their emotions and learning success. Pupils will be asked a range of pre-determined questions to explore these topics (see Appendix 1), and based on children's answers, may be asked additional questions or to expand further. Semi-structured interviews have been selected due to their flexibility; they are beneficial for allowing participants to explore their thoughts and feelings, and to talk in-depth about potentially sensitive topics (DeJonckheere & Vaughn, 2019). To further facilitate this, pupils will be interviewed individually rather than in groups, and in a location within school which is familiar to them. When participants are interviewed in groups, this can impact on their willingness to share their thoughts, ideas, and feelings, and can lead to individuals' thoughts being persuaded by others in the group (Heary & Hennessy, 2006). Given that this study aims to understand pupils' perspectives, it's essential that pupils feel safe and comfortable when expressing their thoughts and feelings, and do not feel pressured to conform to the ideas of others. Moreover, the interview schedule will contain open-ended questions rather than closed-ended questions. When children aged between 5 and 9 are asked closed-ended questions, they often answer 'yes' or 'no' even when they do not

understand the question or know the answer (Waterman et al., 2001). Thus, to avoid meaningless findings, open-ended questions will be used to gain a rich understanding of pupils' perspectives.

Pupils' drawings

Following semi-structured interviews, the same children will be involved in a drawing activity, focused around pupils' perspectives on the most effective source(s) of support within school for helping to manage their emotions (see Appendix 2). Researchers suggest that children's drawings can provide unique insights which cannot be obtained through interviews or questionnaires, by allowing children to express thoughts and feelings in a way which is not reliant on language or articulation abilities (Søndergaard & Reventlow, 2019). Thus, children's drawings have been selected here rather than semi-structured interviews, to provide children with an alternative way of expressing their thoughts and emotions. Firstly, pupils will be asked to think about things within school that help them identify and manage their emotions. Children will then be encouraged to draw and label their various ideas on paper. Secondly, children will then be asked to think about things which they do not currently have, or do not get enough time with, which would support them in dealing with their emotions. Again, children will then be encouraged to draw and label their various ideas on paper. Researchers have emphasised the importance of discussions which arise from children's drawings, and argue that they provide rich, in-depth insight into pupils' perspectives (Einarsdottir et al., 2009). For this reason, the researcher will engage in discussion with the children whilst they are drawing, such as asking them the reason behind their drawings, and to explain why they think their various drawings help in supporting them with their emotions.

Data Analysis

To analyse quantitative data collected from emotional intelligence questionnaires and pupils' academic scores, the data will firstly be checked for completeness, or for any severe anomalies which need to be removed from the data set (Paltridge & Phakiti, 2010). As used in studies discussed within the literature review, this data will be analysed using Pearson's correlation coefficient (Pearson's *r*), a correlational analysis which reveals the strength of the relationship between two variables (Sedgwick, 2012). In this study, Pearson's *r* will indicate whether there is a relationship between pupils' emotional intelligence and their academic achievement, and if so, the strength of this

relationship. The statistical values generated from this analysis will be reported in a table, and the relationship will be presented clearly on a scatterplot graph.

To analyse the qualitative data within the study, thematic analysis will be used, a type of analysis which involves identifying and reporting patterns, known as 'themes', within data (Braun & Clarke, 2006). All discussions from semi-structured interviews, as well as discussions involving children's drawings will be audio-recorded and transcribed in preparation for thematic analysis. Firstly, the transcribed data will be read through multiple times to identify any initial patterns or interesting features throughout. These identified patterns or features will then be coded and organised into meaningful groups based on similarities. Following this, the codes will be analysed by looking for relationships, similarities, and differences between the codes, and then codes will then be combined to produce overarching themes; these themes will reflect important ideas/thoughts which repeatedly occur throughout the data. Given the findings of those discussed within the literature review, there are some themes which I predict will emerge through analysing the data. While analysing data from semi-structured interviews, I would expect to see themes emerge surrounding detrimental impact of negative emotions on learning, and beneficial impact of positive emotions on learning. Likewise, while analysing data from children's drawings and the associated discussions, I would predict emerging themes to include ideas around supportive adults and children within school, opportunities to be outdoors, circle time/worry boxes to share feelings, and adults and children having a sense of humour. Nevertheless, given that there is a lack of research exploring pupils' perspectives on these areas, and that this research will be conducted in a different cohort of children to that of previous research, there is a probability that novel themes will emerge, in addition to those predicted. Given that this research involves specific research questions to explore pupils' perspectives, the most appropriate approach to thematic analysis would be a more theoretical approach rather than inductive. Compared to an inductive approach, which analyses the whole data set, and a research question emerges as a result, a more theoretical approach to analysis involves analysing the data with the specific research questions in mind, and identifying themes which help to provide answers to the specific research questions (Braun & Clarke, 2006). Whilst this approach does not provide as much rich insight into the overall data set, it provides a more focused, in-depth insight into the specific area of interest, meaning it is an effective approach for investigating pupils' perspectives on a limited research area.

Ethical Considerations

Prior to conducting this research, a checklist will be completed, confirming that this research meets the ethical requirements of both the Faculty of Education, University of Cambridge, and the British Educational Research Association (BERA) (2018). Following this, informed consent will be sought out before commencing with the research; letters will be sent out to parents/carers of participating children, detailing the study, and asking for signed consent. They will also be informed that any data collected will be stored both securely and confidentially, viewed only by the researcher, and destroyed when no longer required. Despite children not being able to formally consent, Taber (2013) argues it is still essential to inform children what the study involves and ask them whether they are happy to participate. Thus, children will also receive details of what the study involves for parents/carers to explain to them, and a box to tick to confirm their participation in the study.

Both at the beginning of the study and throughout, children will be made aware of their right to withdraw; it is important that children are given multiple opportunities to withdraw, and their continued participation should not be assumed by the researcher (BERA, 2018). Additionally, in the consent form, it will be explained to parents/carers that children will be audio-recorded during interviews, purely as a means for analysing discussions post-interview, which will be destroyed once transcribed. Despite this, children will not be made aware that they are being audio-recorded – this is to avoid participant bias, where participants change their attitudes, thoughts, or behaviours to match what they perceive to be the desired results of the research (Brito, 2017). Given that this study is focused on understanding pupils' perspectives, it is essential that the study methodology does not interfere with children's openness and willingness, by making them feel uncomfortable or pressured. Because of this, and the nature of potentially sensitive topics being discussed throughout the study, children will be provided with a debrief at the end of the study. This will involve outlining the aims and purpose of the study, explaining that discussions were recorded and the reason for doing this, and providing the opportunity for the children to ask any questions that they have. To support the children, they will be directed to the wellbeing lead within the school (or other appropriate adult) to seek advice or support if they require.

Implications for future practice

The research and writing involved in this research proposal has contributed immensely to my professional development and future practice as a teacher. I now have a more thorough understanding

of the complexity of emotions and how various emotions can impact on learning, both positively and negatively. I have gained an appreciation for how negative and positive emotions may differ in their impact on learning success, depending on the level of arousal produced and the individual experiencing the emotions; researchers suggest that high-arousal emotions, whether negative or positive, can be detrimental for learning success, and individuals high in emotional intelligence are better adapted to cope with such emotions. Thus, within my future practice, I will ensure to help support children in identifying, understanding, and managing their own and others' emotions, in order to help them to develop their emotional intelligence, as this should result in positive outcomes in terms of their academic achievement. To do this, I aim to implement some effective strategies from the findings of this research within my classroom, as well as speaking to children within my class regularly to understand the efficacy of these strategies, both from their perspective and more objectively, by monitoring changes over time in their ability to discuss and manage their emotions.

Moreover, the research involved in this proposal has provided me a new perspective: helping pupils to develop their emotional intelligence does not appear as daunting as first thought. Whilst emotional intelligence can be taught explicitly, implementing small changes within the classroom, such as circle-time discussions or having a 'worry box', can provide immense benefit for the promotion of pupils' emotional intelligence, by allowing pupils to practise identifying, understanding, and managing their own and others' emotions. Therefore, in my future classroom, I will ensure to integrate a variety of informal opportunities for children to build and develop these skills, so that pupils' both understand their emotions, and how to manage them effectively.

More generally, this research has emphasised the importance of researching pupils' perspectives, as pupils deserve the right to discuss matters which directly impact on them (BERA, 2018). When making changes within school which affect children, it is essential that children themselves are asked for their thoughts and opinions as they are "the best sources of information about themselves" (Docherty & Sandelowski, 1999, p.177). The research carried out for writing this proposal has allowed me to further my understanding of how to investigate pupils' perspectives, knowledge which I will draw upon when trying to make meaningful and impactful changes for the children I teach in the future.

References

Almalki, S. (2016). Integrating quantitative and qualitative data in mixed methods research—challenges and benefits. *Journal of Education and Learning*, *5*(3), 288–296.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101.

British Educational Research Association (BERA). (2018). *Ethical guidelines for educational research*. Retrieved from https://www.bera.ac.uk/researchers-resources/publications/ethicalguidelines-for-educational-research-2018

Brito, C. F. (2017). Demonstrating experimenter and participant bias. In *Activities for teaching statistics and research methods: A guide for psychology instructors* (pp. 94–97). American Psychological Association.

Cabanac, M. (2002). What is emotion? *Behavioural Processes*, *60*(2), 69–83.

Carmona-Halty, M., Salanova, M., Llorens, S., & Schaufeli, W. B. (2021). Linking positive emotions and academic performance: The mediated role of academic psychological capital and academic engagement. *Current Psychology*, *40*(6), 2938–2947.

Cohen, L., Manion, L., & Morrison, K. (2017). *Research methods in education* (8th ed.). Routledge.

Collins, B. (2013). Empowerment of children through circle time: Myth or reality? *Irish Educational Studies*, *32*(4), 421–436.

DeJonckheere, M., & Vaughn, L. M. (2019). Semistructured interviewing in primary care research: A balance of relationship and rigour. *Family Medicine and Community Health*, *7*(2), e000057.

Docherty, S., & Sandelowski, M. (1999). Focus on qualitative methods: Interviewing children. *Research in Nursing & Health*, *22*(2), 177–185.

Einarsdottir, J., Dockett, S., & Perry, B. (2009). Making meaning: Children's perspectives expressed through drawings. *Early Child Development and Care*, *179*(2), 217–232.

Fargas-Malet, M., McSherry, D., Larkin, E., & Robinson, C. (2010). research with children: Methodological issues and innovative techniques. *Journal of Early Childhood Research*, *8*(2), 175–192.

Flutter, J. (2007). Teacher development and pupil voice. *The Curriculum Journal*, *18*(3), 343–354.

Fredrickson, B. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, *56*(3), 218–226.

Fredrickson, B. (2004). The broaden-and-build theory of positive emotions. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *359*(1449), 1367–1378.

Goleman, D. (2020). *Emotional intelligence: 25th anniversary edition*. Bloomsbury Publishing.

Grewal, D., & Salovey, P. (2006). Benefits of emotional intelligence. In M. Csikszentmihalyi & I. S. Csikszentmihalyi (Eds.), *A Life Worth Living: Contributions to Positive Psychology* (pp.104-119). Oxford University Press.

Hall, S. (2010). Supporting mental health and wellbeing at a whole-school level: Listening to and acting upon children's views. *Emotional and Behavioural Difficulties*, *15*(4), 323–339.

Heary, C., & Hennessy, E. (2006). Focus groups versus individual interviews with children: A comparison of data. *The Irish Journal of Psychology*, *27*(1–2), 58–68.

Hinton, C., Miyamoto, K., & Della-Chiesa, B. (2008). Brain research, learning and emotions: Implications for education research, policy and practice. *European Journal of Education*, *43*(1), 87–103.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, *30*(3), 607–610.

Lindsley, D. B. (1951). Emotion. In *Handbook of experimental psychology* (pp.473–516). Wiley.

Linnenbrink, E. (2007). The role of affect in student learning: A multi-dimensional approach to considering the interaction of affect, motivation, and engagement. In P. Schutz & P. Reinhard (Eds.), *Emotion in education* (pp.107–124). Academic Press.

Malik, F., & Shujja, S. (2013). Emotional intelligence and academic achievement: Implications for children's performance in schools. *Journal of the Indian Academy of Applied Psychology*, *39*, 51–59.

Mavroveli, S., Petrides, K. V., Shove, C., & Whitehead, A. (2008). Investigation of the construct of trait emotional intelligence in children. *European Child & Adolescent Psychiatry*, *17*(8), 516–526.

Mavroveli, S., & Sánchez-Ruiz, M. J. (2011). Trait emotional intelligence influences on academic achievement and school behaviour. *British Journal of Educational Psychology*, *81*(1), 112–134.

Mega, C., Ronconi, L., & De Beni, R. (2014). What makes a good student? How emotions, self-regulated learning, and motivation contribute to academic achievement. *Journal of Educational Psychology*, *106*(1), 121–131.

Paltridge, B., & Phakiti, A. (2010). *The continuum companion to research methods in applied linguistics*. Bloomsbury Publishing.

Paris, S. G., & Paris, A. H. (2001). Classroom applications of research on self-regulated learning. *Educational Psychologist*, *36*(2), 89–101.

Pekrun, R. (2014). Emotions and learning. *Educational Practices Series*, *24*(1), 1–31.

Pekrun, R., Götz, T., Titz, W., & Perry, R. P. (2002). *Positive emotions in education*. 149–173.

Pérez-González, J.-C., Saklofske, D. H., & Mavroveli, S. (2020). Trait emotional intelligence: Foundations, assessment, and education. *Frontiers in Psychology*, *11*, 608.

Petrides, K. V., Furnham, A., & Mavrveli, S. (2008). Trait emotional intelligence: Moving forward in the field of EI. In G. Matthews, M. Zeidner, & R. D. Roberts (Eds.), *The Science of Emotional Intelligence: Knowns and Unknowns* (pp. 151-166). Oxford University Press.

Pintrich, P., & De Groot, E. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology*, *82*(1), 33–40.

Pozo-Rico, T., & Sandoval, I. (2020). Can academic achievement in primary school students be improved through teacher training on emotional intelligence as a key academic competency? *Frontiers in Psychology*, *10*, 2976.

Psycometriclab. (n.d.). Obtaining the TEIQue. (Questionnaire). Retrieved from https://psychometriclab.com/obtaining-the-teique/

Puertas-Molero, P., Zurita-Ortega, F., Chacón-Cuberos, R., Castro-Sánchez, M., Ramírez-Granizo, I., & González-Valero, G. (2020). Emotional intelligence in the field of education: A meta-analysis. *Annals of Psychology*, *36*(1), 84–91.

Rowe, A. D., & Fitness, J. (2018). Understanding the role of negative emotions in adult learning and achievement: A social functional perspective. *Behavioral Sciences*, *8*(2), 27.

Salovey, P., & Grewal, D. (2005). The science of emotional intelligence. *Current directions in psychological science*, *14*(6), 281–285.

Sánchez-Álvarez, N., Berrios Martos, M. P., & Extremera, N. (2020). A meta-analysis of the relationship between emotional intelligence and academic performance in secondary education: A multi-stream comparison. *Frontiers in Psychology*, *11*, 1517.

Sedgwick, P. (2012). Pearson's correlation coefficient. *BMJ*, *345*, e4483.

Søndergaard, E., & Reventlow, S. (2019). Drawing as a facilitating approach when conducting research among children. *International Journal of Qualitative Methods*, *18*, 1609406918822558.

Sylwester, R. (1994). How emotions affect learning. *Educational Leadership*, *52*(2), 60–65.

Taber, K. (2013). *Classroom-based research and evidence-based practice: An Introduction*. SAGE.

Trigwell, K., Ellis, R. A., & Han, F. (2012). Relations between students' approaches to learning, experienced emotions and outcomes of learning. *Studies in Higher Education*, *37*(7), 811–824.

Valiente, C., Swanson, J., & Eisenberg, N. (2012). Linking students' emotions and academic achievement: When and why emotions matter. *Child Development Perspectives*, *6*(2), 129–135.

Wang, Y., Chen, J., & Yue, Z. (2017). Positive emotion facilitates cognitive flexibility: An fMRI study. *Frontiers in Psychology*, *8,* 1832.

Waterman, A. H., Blades, M., & Spencer, C. (2001). Interviewing children and adults: The effect of question format on the tendency to speculate. *Applied Cognitive Psychology*, *15*(5), 521–531.

Weare, K. (2013). Developing mindfulness with children and young people: A review of the evidence and policy context. *Journal of Children's Services*, *8*(2), 141–153.

Zimmerman, B. (1989). A social cognitive view of self-regulated academic learning. *Journal of Educational Psychology*, *81*(3), 329–339.

Zimmerman, B. J. (1990). Self-regulated learning and academic achievement: An overview. *Educational psychologist, 25*(1), 3-17.

Appendix 1

Semi-structured interview schedule

Semi-structured interview schedule:

Questions numbered 1-4 represent pre-determined questions which will be asked to the children. Questions listed using the '–' symbol represent questions which children may naturally cover within their answers, but will be used to prompt children if they find themselves unsure of how to answer the question, or are touching on something interesting within their answer but are unsure how to articulate it and need prompting.

1) What are emotions?

2) What is learning?

3) What are negative emotions?

- Can you give any examples?

4) How do negative emotions affect your learning?

- Are negative emotions always bad for learning?

5) What are positive emotions?

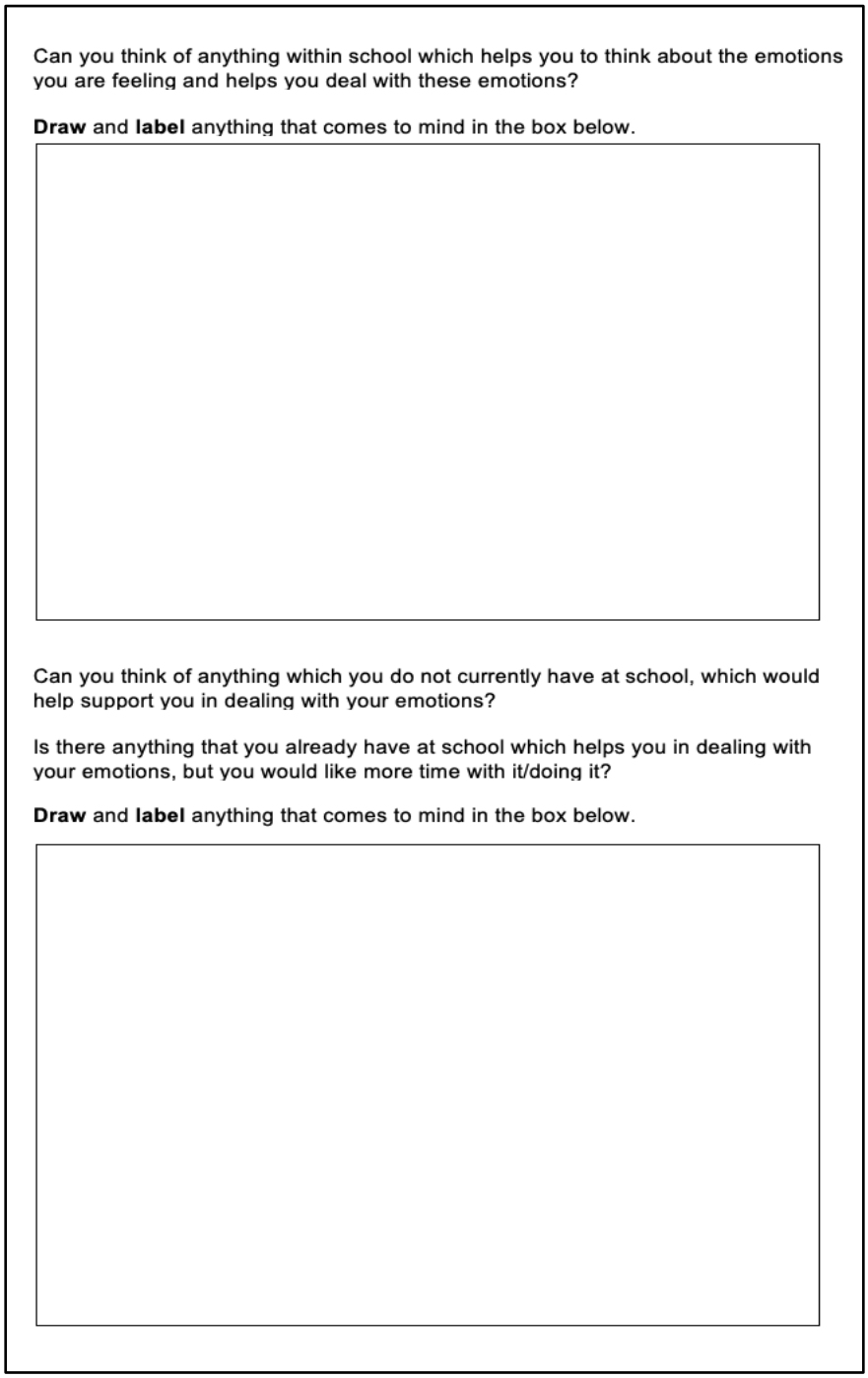
- Can you give any examples?

6) How do positive emotions affect your learning?

- Are positive emotions always useful for learning?

Appendix 2

Pupils' drawings sheet


Can you think of anything within school which helps you to think about the emotions you are feeling and helps you deal with these emotions?

Draw and **label** anything that comes to mind in the box below.

Can you think of anything which you do not currently have at school, which would help support you in dealing with your emotions?

Is there anything that you already have at school which helps you in dealing with your emotions, but you would like more time with it/doing it?

Draw and **label** anything that comes to mind in the box below.

Blank Page