

Est.
1841

**YORK
ST JOHN
UNIVERSITY**

Belle Sophia Caswell

Can mindfulness strategies support children's wellbeing and promote engagement
in learning within a mainstream classroom?

Submitted in accordance with the requirements for the degree of
BA (Hons) Primary Education (5-11) with QTS

York St John University
School of Education, Language and Psychology

May 2023

Word count: 6342

The candidate confirms that the work submitted is her own and that appropriate credit has been given where reference has been made to the work of others.

This copy has been supplied on the understanding that it is copyright material. Any reuse must comply with the Copyright, Designs and Patents Act 1988 and any licence under which this copy is released.

© 2023 York St John University and Belle Caswell

The right of Candidate's Name to be identified as Author of this work has been asserted by him/her in accordance with the Copyright, Designs and Patents Act 1988.

Contents

Introduction.....	3
Literature Review.....	5
Research Methods.....	11
Findings.....	14
Discussion.....	22
Conclusion.....	26
References.....	27
Appendices.....	32

Acknowledgements

I would like to thank the teachers and children involved in the study for their participation in the questionnaires, interviews and observations. I would like to thank the consistent support from my lecturers over the last three years. Finally, I would like to thank my friends and family for their support throughout my teacher training.

Abstract

Child wellbeing is a growing concern within education (Chu, Saucier, and Hafner 2010; Yang 2016; Carroll and Johnson 2020). Therefore, strategies which can support children's wellbeing within school are important. Research suggests child wellbeing highly influences their engagement in learning. Therefore, educationalists are looking into strategies which can support both wellbeing and engagement.

The theoretical foundations underpinning this research project are the importance of schools supporting child wellbeing and the link between child wellbeing and engagement in learning.

The research was conducted within a year 1 class of twenty two students. Using an action research approach around the question 'How Mindfulness strategies can support child wellbeing and engagement in learning', data was collected through a mixed methods approach producing both qualitative and quantitative data. Interviews with children and open questions within a teacher questionnaire produced qualitative data. Observations via the Leuven scale of wellbeing and involvement, as well as open questions within the questionnaire and student interviews produced qualitative data.

The research findings suggest that mindfulness strategies can support both children's wellbeing and engagement in learning as they co-dependent one another. This paper offers suggestions for

current and future teachers in how they can consider supporting their student's wellbeing and in turn engagement in learning.

Can mindfulness strategies support children's wellbeing and promote engagement in learning within a mainstream classroom?

1. Introduction

Is there a link between children's wellbeing and achievement in school? This research paper evaluates active research into whether mindfulness strategies can support both children's wellbeing and their engagement in learning. The mindfulness strategies themselves consisted of breathing exercises, yoga and meditation. Each of these three strategies were implemented for three weeks over a nine-week period. Through observations, questionnaires and interviews, this study aimed to demonstrate how teachers can practically implement mindfulness to support children's wellbeing and engagement in learning. The Leuven scales of engagement and involvement were both used by the researcher when observing a class of year 1 children before and after participating in mindfulness over the nine-week period. Teacher perspectives regarding the effectiveness of strategies to support children's wellbeing and overall opinions on mindfulness were gathered from a questionnaire. The opinions of the child participants are incorporated into this project from interviews with a focus group of six children, randomly selected. This allowed a reflection of which specific mindfulness strategies were most effective from the children's perspective. By taking account both children's and teacher's perspectives, an analysis can be made into whether an engaging and beneficial system of mindfulness can be developed and incorporated into a child's education.

2. Literature Review

Within this literature review there are some important aspects to consider.

- Why and how should schools support children's wellbeing?
- The link between student wellbeing and engagement in learning
- Mindfulness and its effect on children's wellbeing and engagement in learning

2.1 Why and how should schools support children's mental wellbeing?

Primary schools have a significant role in supporting children's wellbeing. Felver et al. (2017) indicate that there can be a misconception that healthy wellbeing is simply the absence of a mental illness, however instead it should be viewed as an individual's overall positive state of functioning. The research of Hayes et al. (2019) reflects that attributes of healthy wellbeing within primary aged children include a strong sense of purpose, self-esteem, and resilience, as well as the ability to manage and express emotions in a healthy manner.

Wellbeing is holistic and includes the psychological, emotional and social wellbeing of individuals and therefore it should be acknowledged that all factors of wellbeing are mutually reassuring (Weare 2015; Kibbat-Zin 2015). Education should be responsible for the whole development of a child, supporting their emotional, social and academic development (Best 2008; Mahmoudi 2012). This is reflected in the Teacher's Standard 5, stating teachers should adapt their teaching to the needs of all pupils to support different stages of development (DfE, 2021).

Unfortunately, the topic of children's psychological wellbeing is complex and has not always been a high priority within education, due to stigmas surrounding mental health (Mukolo, Heflinger, and Wallston 2010; Yang 2016). However, Graham et al. (2011) explain that there has been progression within society's attitude towards wellbeing and this is highlighted in the recent government Green Paper, a document providing information how schools can support children's mental health. This paper acknowledges children should be supported in their social, emotional and psychological wellbeing. This is a positive sign that educationalists are acknowledging that more can be done within schools (DfE, 2022).

According to a recent survey conducted by the Office for National Statistics, around one in six children aged 5 to 16 in the UK were identified as having poor wellbeing (ONS 2020). The research of Graham et al. (2011) found that the main factors affecting children's wellbeing are environmental, genetic or stress related. The impact of COVID-19 on children's wellbeing is also an important factor to consider (Gupta and Jawanda 2020; Fore 2020). Ashikkali, Carroll and Johnson (2020) evaluated the indirect impacts of COVID-19 and found that it has been one of the most significant and global factors on children's wellbeing. Fore (2020) highlights that the addition of long periods out of school due to the virus has also caused children to struggle and settle into a routine of engagement when returning. Therefore, it can be reasonably argued that it is even more vital that current teachers aim to implement strategies to support their student's wellbeing, because schools can provide a safe, supportive environment within children's lives (Weare 2015; Burton 2017).

From the literature discussed above, it is clear that children's wellbeing is important for educationalists to consider. However, Burton et al. (2017) observed that it is the practical action and strategies implemented into individual classrooms which will make a significant change. If schools create a positive school culture it will support student's wellbeing by providing a safe and inclusive learning environment. This supportive environment provides emotional safety, where children feel valued, accepted, and respected. Emotional safety creates a positive and nurturing atmosphere that promotes positive wellbeing. The research of Kutsyuruba, Klinger and Hussain (2015) showed that strong student-teacher relationships form the foundations of a supportive and inclusive classroom environment. O'Keeffe (2013) indicates that positive relationships provide

opportunities for students to develop empathy, compassion, and emotional intelligence, all of which are essential for their wellbeing and growth into adolescence and beyond into adulthood.

Some may argue that it is the responsibility of wider professionals and parents to support children's wellbeing, and that schools should simply focus on the academic progression of students. However, if teachers collaborate with parents, school counsellors and mental health professionals, this is likely to improve children's wellbeing yet further, with help from both inside and outside the classroom (Nokali, Bachman and Votruba-Drzal 2010; Reinke 2011). Hayes et al. (2019) advocate the importance of teachers modelling and teaching emotional regulation and coping skills such as mindfulness exercises, positive self-talk and problem-solving strategies. Emotional regulation techniques often involve children learning to communicate and express emotions appropriately (Reinke 2011; Ekrun and Linnenbrink-Garcia, 2014). This suggests that if students are taught how to identify, understand, and regulate their emotions within school, this will in turn support their emotional wellbeing for their whole lifetimes. Lawson (2009) explains that teachers should continuously evaluate and reflect on their strategies to ensure that they are effective. Teachers should not presume implemented strategies are always the most effective. Therefore, this research paper intends to evaluate a variety of differing mindfulness strategies.

2.2 The link between student wellbeing and engagement in learning

It has been shown that it is vital for teachers to support children's wellbeing. To expand this point, teachers should aim to improve children's wellbeing to increase children's levels of engagement (Roodra et al. 2011; Pianta, Hamre and Allen 2012; O'Keefe 2013). The teachers standard 5 highlights that teachers must have a strong understanding of how a range of factors can inhibit pupils' ability to learn (DfE, 2020). This supports the argument that poor wellbeing can inhibit children's engagement in learning, as these issues are co-dependent. If children are engaged in their learning, they are more likely to develop emotional coping skills, feel a sense of purpose and build social connections, and if children experience positive emotions, they are consequently more likely to engage in their learning (Reinke 2011; Burton 2017; Fore 2020).

The meta-analytic study of Roodra, et al. (2011) found that children who had higher levels of wellbeing where they felt safe, happy and supported within the classroom proved to have greater levels of engagement in learning and thus academic progression. Both the educational research of Spratt (2016) and of Brännlund, Strandh, and Nilsson (2017) provide further evidence for this link. Although these studies were conducted with secondary children, these co-dependent factors should be considered throughout all of an individual's education.

As mentioned above, it is vital that teachers provide a supportive and inclusive environment, this not only supports children's wellbeing, as explained above, but also increases children's

engagement in learning. Pianta, Hamre and Allen (2012) found that when teachers create a positive and inclusive classroom atmosphere, children were more likely to actively participate and engage in learning. This supportive environment can be achieved through inclusive teaching practices, collaborative learning, and promoting open discussions (Ferguson 2000; Causton-Theoharis 2009; Yang 2016). The various relationships within a school are also critical. Strong relationships between students and teachers, parents and teachers, and teachers and wider professionals are all vital to help ensure that the best support is given for children's engagement in learning (Reinke 2011; Cook and Shepherd 2012).

Ekrun and Linnenbrink-Garcia (2014) found that children who were taught how to regulate their emotions gained an increase in focus, attention, and motivation, leading to better academic performance and overall engagement. Emotional regulation techniques help children to cope with stress and anxiety, which otherwise hinder concentration and learning. By teaching children mindfulness strategies to manage their stress, children can develop a calmer state of mind conducive to academic achievement. Boekaerts and Pekrun (2015) state that it is important to note that emotional regulation techniques should be taught and reinforced consistently, incorporating age-appropriate strategies and considering individual differences. However, Ekrun and Linnenbrink-Garcia's study was conducted with high school students and - as Boekaerts and Pekrun (2015) explain - young children can find it harder to gain emotional awareness, hence regulation strategies may be more challenging to implement within primary schools.

Nevertheless, there is wide literature to support the implementation of emotional-regulation strategies within primary schools as it is vital that individuals are taught how to approach life's challenges and setbacks with a positive and resilient mindset from a young age. Liccardi et al. (2017) found that when children develop these skills, they can navigate social interactions more effectively, leading to better relationships with peers and teachers. Positive social interactions and a sense of belonging in the learning environment contribute to increased engagement and motivation (Liccardi et al. 2007; Indriyani, Syaharuddin and Jumriani 2021) as well as mental wellbeing. Nokali, Bachman and Votruba-Drzal (2010) also found that emotional-regulation techniques can also help children develop a positive emotional connection to the learning process itself. They suggest that by encouraging curiosity, enthusiasm, and a growth mindset, children will become more emotionally invested in their education thus resulting in further academic achievement within primary and secondary schools. The recent studies of Amholt et al. (2020) and Kiuru et al. (2020) both also found benefits in supporting student wellbeing to increase engagement in learning and thus academic progression.

However, Cohen, Manion and Morrison (2018) warn that researchers should not assume that correlation equals causation. Felver et al. (2017) argue that it cannot be assumed that support in

wellbeing will undoubtedly increase levels of engagement, as other factors could also be influential. However, there is strong research to support the proposition that wellbeing and engagement in learning are mutually reassuring. Children who have strong wellbeing are more able to deal with life's challenges, to be more engaged in their learning, and to fulfil their academic potential.

2.3 Mindfulness and its effect on children's wellbeing and engagement

As mentioned above, specific coping skills can be modelled and carried out within the classroom to support children's wellbeing and engagement in learning, one being the act of mindfulness. Mindfulness can be defined as a practice and a state of being that involves intentionally focusing one's attention on the present moment (Germer 2004; Siegel 2009; Kabat-zin 2015; Weare 2018). Felver et al. (2017) and Hayes et al. (2019) both expand this definition, stating that mindfulness trains individuals to intentionally focus on sensations, thoughts, and emotions that arise and without their getting overwhelmed with distractions. Mindfulness practice often involves formal techniques, such as meditation or body scans, focused breathing and yoga where individuals intentionally focus their attention on specific objects or sensations (Siegel 2009; Bostic et al. 2015). There is growing research suggesting that mindfulness is a successful engagement strategy which can be implemented within classrooms to support both children's wellbeing and engagement.

Both the research of Ricate et al. (2015) and Amundsen et al. (2020) show that mindfulness can enhance students' social-emotional skills, such as empathy, compassion, and resilience. These skills are important for building positive relationships with peers and teachers, and for managing stress. Weare (2018) explains that mindfulness supports psychological wellbeing by fostering a non-judgmental and accepting attitude towards experiences, reducing stress, promoting emotional regulation, and enhancing self-awareness. It can therefore be a valuable strategy in maintaining mental health and improving children's overall quality of life. Rix and Bernay (2014) show that mindfulness can improve children's attention and focus, thereby enhancing their learning experiences. When students are trained to focus better, they are more likely to understand and retain information, and to participate more actively in classroom activities (Bostic et al. 2015; Ager, Albrecht and Cohen 2015).

The research of Bannirchelvam and Costello (2017) highlights that mindfulness strategies can promote self-awareness and self-regulation, which are each important skills for both student wellbeing and engagement in learning. When students are aware of their thoughts and feelings, they can better manage them and make more conscious choices about their behaviour and learning (Miller, Connolly and Maguire 2013; Weare 2018). Ricardo (2018) indicates that mindfulness can result in increased positive behaviour and academic progression for students,

due to reduction in stress and anxiety. Further research conducted by Yang (2016) found that after participating in mindfulness sessions children felt calmer which improved their behaviour and engagement in learning and thus their academic achievement.

Although there is strong evidence to support the use of mindfulness, Crescentini et al. (2016) explain that mindfulness is only effective when it is implemented practically and carefully within the class routine. The research of Axelrod and Santagata (2022) highlighted some children felt uncomfortable at first when strategies were implemented into the classroom. Burton (2017) and Bethune (2018) highlight that it is also important to consider that children may have greater benefits from alternative strategies, such as those mentioned above (i.e., a supportive environment and collective support). Miller, Connolly and Maguire (2013) expand this point, stating not only that certain strategies will affect children differently, but that specific mindfulness strategies will also have greater effects on some individuals. However, when conducting this research, a strong consideration was made to the effect that multiple strategies can be used simultaneously including different forms of mindfulness. It is suggested that further research into a variety of mindfulness strategies, specifically within a primary educational setting, is needed (Ricate et al. 2015; Weare 2018; Axelrod and Santagata 2022) thus helping to justify this research project.

To conclude this review of the relevant literature, it is clear that mindfulness has a significant impact of children's wellbeing and engagement in learning. Through reducing stress, improving attention, promoting self-regulation and developing social and emotional skills, mindfulness strategies can support children to be more present, engaged and successful in their learning.

3. Research methods

Teacher-initiated research is fast growing and a regularly conducted form of research, but it is important to justify the research methods conducted and to ensure that guidelines are followed (Punch 2009; Cohen, Manion and Morison 2018).

3.1 Research approach

This small-scale research project took an action-research approach to investigate the effectiveness of mindfulness strategies on children's wellbeing and engagement. Action-research typically follows a cyclical process that includes the following stages: identifying a problem, planning, data collection, analysis action and reflection (Opie 2004; Costello 2016; McNiff 2021) therefore this cycle will be followed. More specifically, this study is a school-based action research project. School-based action research is considered an appropriate research method within education as it aligns research with practice, promotes collaboration, and fosters continuous improvement, thus making it especially valuable (Koshy 2005; Lawson 2009; McNiff 2021). The three mindfulness strategies that this action-research implemented were breathing exercises, yoga and meditation. Ager, Albrecht and Cohen (2015) highlight that these three strategies are the most common and practical mindfulness strategies that can be effectively implemented within primary classrooms.

However, there is some potential criticism towards action-research in schools; Cain (2011) highlights that the research has the potential to be biased as it is often conducted by teachers directly involved in the classroom. Mertler (2013) expands this criticism by stating that reliability can also be challenged, as action-research typically takes place with a small number of participants within a specific educational setting. However, both Johnson (2012) and Kemmis et al. (2016) indicate that although action-research has some drawbacks it is still a valuable approach to improve educational practice, when conducted carefully. Overall, action-research in schools empowers educators to become active agents of change within their own schools (Lawson 2009; Cohen 2017). There is a lack of research into children's wellbeing and engagement, as identified in the literature review, and therefore this action-research is further justified.

3.2 Participants

The data for this research was collected from eight teachers and twenty two students in a year 1 class within a SE3 placement school. The participants for the teacher questionnaires and for the whole class observations were selected according to convenience. However, random sampling was used to select the focus group of six students within the year 1 class. Cohen, Manion and Morrison (2017) support the use of random sampling to reduce biased selection.

3.3 Data collection

The data from this research was collected through a mixed-method triangulation approach, consisting of questionnaires, observations and interviews, producing both qualitative and quantitative data. This was an appropriate approach as triangulation reduces bias and increases reliability whilst providing a practical problem-driven approach to research (Cohen, Manion and Morrison 2017). A mixed-method approach can also be deemed specifically appropriate for action-research as it is more comprehensive and provides a deeper understanding of a phenomena from different perspectives (Cohen, Manion and Morrison 2017). In this case, the opinions on mindfulness were collected from both teachers and children. However, Punch (2009) indicates that the complexity of mixed-method research may be less feasible for researchers with limited resources, or with time constraints. Due the time restraints of placement this was indeed a challenge, nonetheless the benefits of mixed-method research were more prominent for this research and therefore remained appropriate choices.

Observations

The first data was collected through general observations of the 22 children within the year 1 class. This took place once a week before and after a mindfulness session over a nine-week period. More focused observations via the Leuven scale of engagement and wellbeing were conducted upon six children before and after a mindfulness session. Barber (2013) and MacRae and Jones (2020) both advocate the Leuven scale as an appropriate choice as it seeks the relationship between child wellbeing and engagement, which reflects the aims of this research project. Quantitative data was collected, given that the Leuven scale is conducted through a five-point scale (Appendix 2).

Questionnaires

The other data-collection method was a staff questionnaire (Appendix 1) which included both open and closed questions, thereby gathering both qualitative and quantitative data. Questionnaires within educational research are an efficient data-collection method, which allows multiple teachers to respond simultaneously and therefore gains a larger sample size in a short time frame (Punch 2009; Xerri 2017). Cohen, Manion and Morrison (2018) advocate the collaboration of qualitative and quantitative data within educational research as researchers can gain a deeper understanding of educational phenomena, ensure validity and reliability, and generate more impactful insights to inform educational practice and policy.

Interviews

The final data-collection method used were semi-structured interviews with the selected focus group of 6 children, thereby producing qualitative data. These interviews took place at the end of the research project to consolidate the children's perspective of the mindfulness sessions over the nine-week period. Pupil voice was therefore incorporated into the data, as highlighted by Cohen, Manion and Morrison (2017) as being an important element of educational research. Although as indicated earlier when involving children in research the researcher must be aware of the potential influence upon children's responses. Therefore, as supported by Mcmillan and Schumacher (2014), the interviews took place intentionally in the familiar setting of their classroom to ensure the children were comfortable and less easily influenced.

3.4 Data analysis

As the mixed-method approach produced both qualitative and quantitative data, two forms of data analysis were carried out as follows:

Qualitative data from the open questions within the questionnaires and interviews, as well as the whole class general observations were analysed using a thematic approach assigned to identify themes from participant responses. Thematic analysis can increase the reliability of qualitative data and is a common analysis-method used within educational research (Clarke and Braun 2013; Terry et al. 2017).

Quantitative data collected from the focus group observations via the Leuven scale was analysed numerically. The data from the observations was then generated into bar charts and line graphs, as Punch (2009) explains that this provides a visual aid to the patterns of the results.

3.5 Ethical considerations

This research project followed precautions and was given ethical approval via the York St. John University ethical clearance guidelines. Informed consent was given from the headteacher of the primary school who was the gatekeeper. The gatekeeper was given access to the research proposal, and an ethical clearance form was signed before the research was conducted, thereby providing passive consent. This was more practical than gathering parental consent for each individual child. The participants were made aware of the research as the students were given an age-appropriate explanation as to why it was being conducted. Teachers were also provided with the research proposal. The children were also protected from harm as data-collection was kept anonymous. To further the protection of the data, the General Data Protection Regulations were followed in that physical data was securely stored, and electronic data was stored in files on password protected devices. These actions helped to ensure that the research was carried out

ethically throughout (Stutchbury and Fox 2009; Head 2020).

4. Findings

The findings from the observations, questionnaires and interviews of this research project indicate that mindfulness can very much be an effective strategy at supporting both children's wellbeing and also engagement in learning, thereby indicating the key factors of positive wellbeing including emotional, social and psychological wellbeing. The findings also indicate the positive behavioural and academic benefits of mindfulness. However, it should be acknowledged the findings show not all children will benefit from the same mindfulness strategies and therefore teachers should evaluate their implemented strategies.

4.1 Teacher Questionnaire

Question	Quantitative data (Score 1-5 and number of participants)	Qualitative data Themes produced from analysis:
Do you implement mindfulness into your classroom?	Yes – 8 Participants No – 0 Participant	
What is your opinion on mindfulness and why?		Themes: <ul style="list-style-type: none"> • Effective • Supportive • Positive • Practical
What barrier do you face towards implementing mindfulness strategies within your classroom?		Themes: <ul style="list-style-type: none"> • Lack of time • Resourcing • Ensuring curriculum coverage • Lack of training
'Mindfulness strategies can improve children's wellbeing'. Scale 1-5	1- 2- 3- 4- 5 – 8 participants	
'Mindfulness strategies can improve children's engagement in learning'. Scale 1-5	1 - 2 - 3 - 4 – 1 participant 5 – 7 participants	

'There is a link between children's wellbeing and engagement in learning.' Scale 1-5	1 - 2 - 3 - 4 – 1 participant 5 – 7 participants	
'All children can benefit from mindfulness strategies'	1 - 2 - 3 - 4 – 2 participants 5 – 6 participants	

As seen in table 1, the findings from the questionnaire answered by eight teachers within the school produced both qualitative and quantitative data from the open and closed questions:

Quantitative data produced from the questionnaire firstly indicates most teachers are familiar with mindfulness as seven out of eight stated they use it within their classroom. All eight teachers strongly believe mindfulness strategies can improve children's wellbeing all scoring 5 and overall believe it can also improve engagement with seven teachers scoring 5 and one individual scoring 4. When asked if they believe there is a link between wellbeing and engagement in learning seven out of eight teachers scored 5 and one individual scored 4. Finally, six out of eight teachers scored 5 when asked if they believe all children can benefit from mindfulness, with two individuals scoring 4. Overall, these high scores indicate positive attitudes towards mindfulness and its effects on children's wellbeing and engagement from teacher's perspectives.

Qualitative data produced themes which also indicate positive attitudes from teachers surrounding mindfulness describing it as effective, positive, practical and supportive. However, some barriers towards implementing mindfulness were indicated producing the themes of lack of time, lack of resourcing, ensuring curriculum coverage and lack of training.

4.2 Whole class observations

Week	Mindfulness strategy	General whole-class observation notes
1	Guided Mindful breathing	<ul style="list-style-type: none"> • Most children engaged in breathing exercise. • Some behaviour issues- individuals talking when carrying out breathing. • Some children struggled to sit still on carpet when carrying out breathing exercises. • Class seemed calmer and more engaged in their English writing after mindfulness strategy. Their writing seemed to be of a higher standard.

2	Guided Mindful breathing	<ul style="list-style-type: none"> • All children engaged in the breathing exercise. • All children engaged, except one individual with SEND was not. • Children seemed happy when carrying out the mindfulness exercise. • Children seemed calmer when lining up for lunch time.
3	Guided Mindful breathing	<ul style="list-style-type: none"> • All children engaged in mindful breathing. • Children seem to enjoy the breathing exercises and able to carry it out independently. • No behaviour issues. • Good engagement and factual recall in maths lesson after mindfulness session. • Observed children carrying out breathing exercises in the playground and provision areas.
4	Guided Yoga	<ul style="list-style-type: none"> • Some children found the yoga positions funny. • Overall Children seemed happy doing the positions. • A couple children seemed uncomfortable doing some of the guided yoga. • Reduced movement on the carpet during maths input after yoga.
5	Guided Yoga	<ul style="list-style-type: none"> • Overall children seemed excited to do guided yoga. • Only one recorded behavioural issue • A couple of children seemed uncomfortable. • Overall children seemed happy after completing yoga as they became more familiar with the positions.
6	Guided Yoga	<ul style="list-style-type: none"> • Children seemed more relaxed when sat on the carpet after. • Observed children doing yoga on the playground. • Overall children seemed happy after completing yoga as they became more familiar with the positions.
7	Guided meditation	<ul style="list-style-type: none"> • Around 5 children struggled to engage – and to stay still and not talk. • Not all children shutting eyes. • Some children seemed sleepy after guided mediation. • Overall children seemed calm afterwards.
8	Guided meditation	<ul style="list-style-type: none"> • Overall improvement in engagement of meditation.

		<ul style="list-style-type: none"> • One behavioural issue when carrying out meditation. • Children seemed relaxed in RE carpet input after mindfulness exercise and had good factual recall on prior learning.
9	Guided meditation	<ul style="list-style-type: none"> • Overall progression seen across the 9 weeks. • A couple of children talking when teacher guiding meditation. • Teacher and TA commented on improved behaviour and engagement across the 9 weeks. • Children observed practicing mindfulness strategies independently in groups in the playground and provision areas. • Overall teachers and TA said believe they have seen an increase in children's workload and overall academic achievement.

Table 2 displays qualitative observation notes from whole class observations of 22 year 1 students over the nine-week period they engaged in mindfulness sessions.

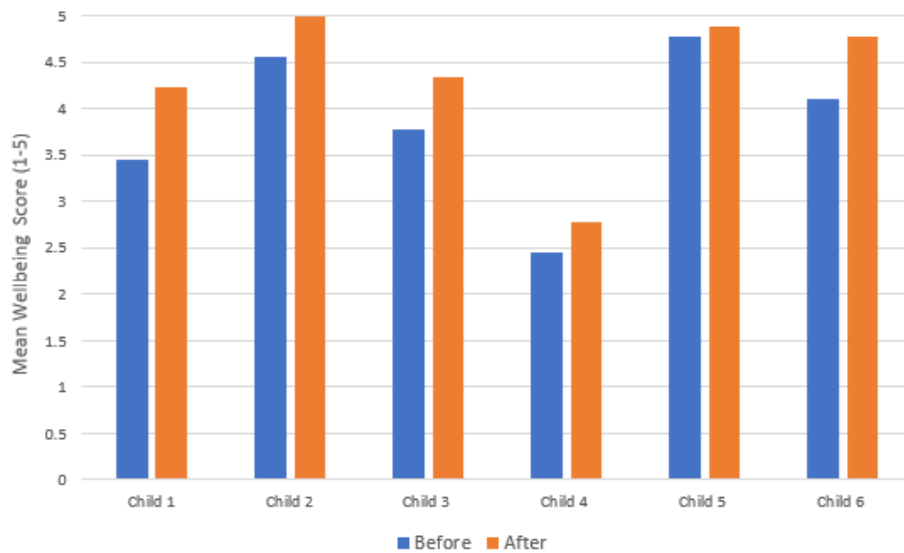
The general observations of the whole class indicate a positive effect of wellbeing, engagement, behaviour and achievement after the 9 week mindfulness sessions. Both immediate progressions in the week by week observation notes and overall progression in the final week observation is seen.

However, it should be acknowledged some behavioural issues and reluctance from children were observed in the early stages of implementation, but the observations suggest these factors improved. When looking at the final week observation notes, positive effects are observed from multiple teachers and the TA upon children's wellbeing and engagement as well as their behaviour and academic achievement overall.

4.3 Focus group observations

Leuven scale of wellbeing observation findings

Bar chart to show the mean before and after wellbeing score of each child over the 9 week period.

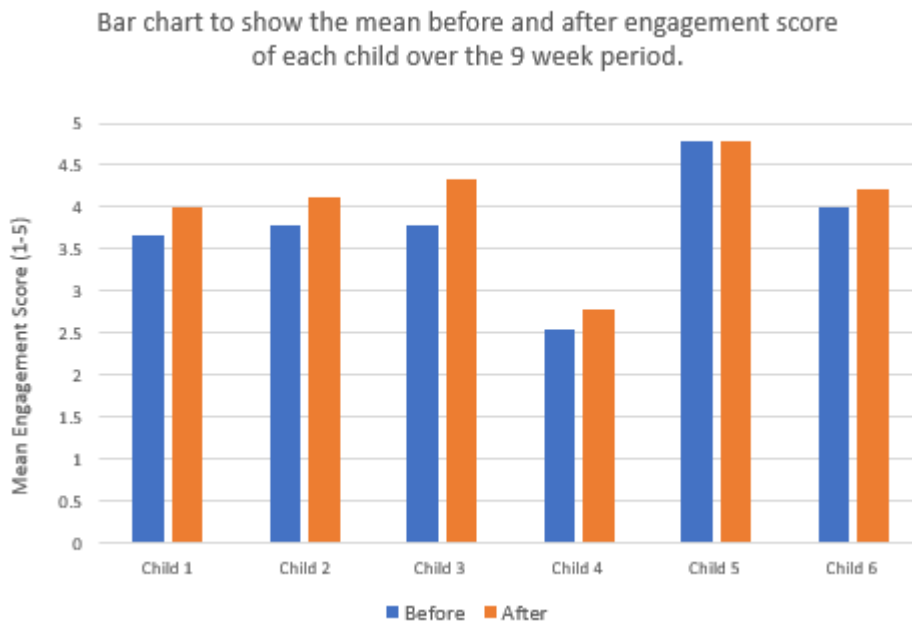


As seen in figure 1, the mean wellbeing score produced from the collaboration of all nine before and after scores via the Leuven scale of wellbeing is displayed in a bar chart for each child.

The bar chart allows a visual overview of the progression in all six children as each child's mean score increased over the nine-week period. Overall, all six children within the focus group increased in wellbeing across the 9 weeks of implemented mindfulness strategies.

Although all children can be seen to make a progression, the bar chart also shows individual children had different levels of progression with some scoring higher than others.

Leuven scale of involvement observation findings



As seen in figure 1.2 the mean engagement score produced from a mean score via the Leuven scale of involvement is displayed in a bar chart.

Similar findings from the wellbeing bar chart above can be seen, all children also progressed in their engagement scores apart from child 5 who scored consistently high throughout the research. However, the findings also indicate as explained above individual children had different levels of progression with some scoring higher than others. The reasoning behind these differences will be evaluated within this research paper's discussion.

Children's engagement and wellbeing observations line graph

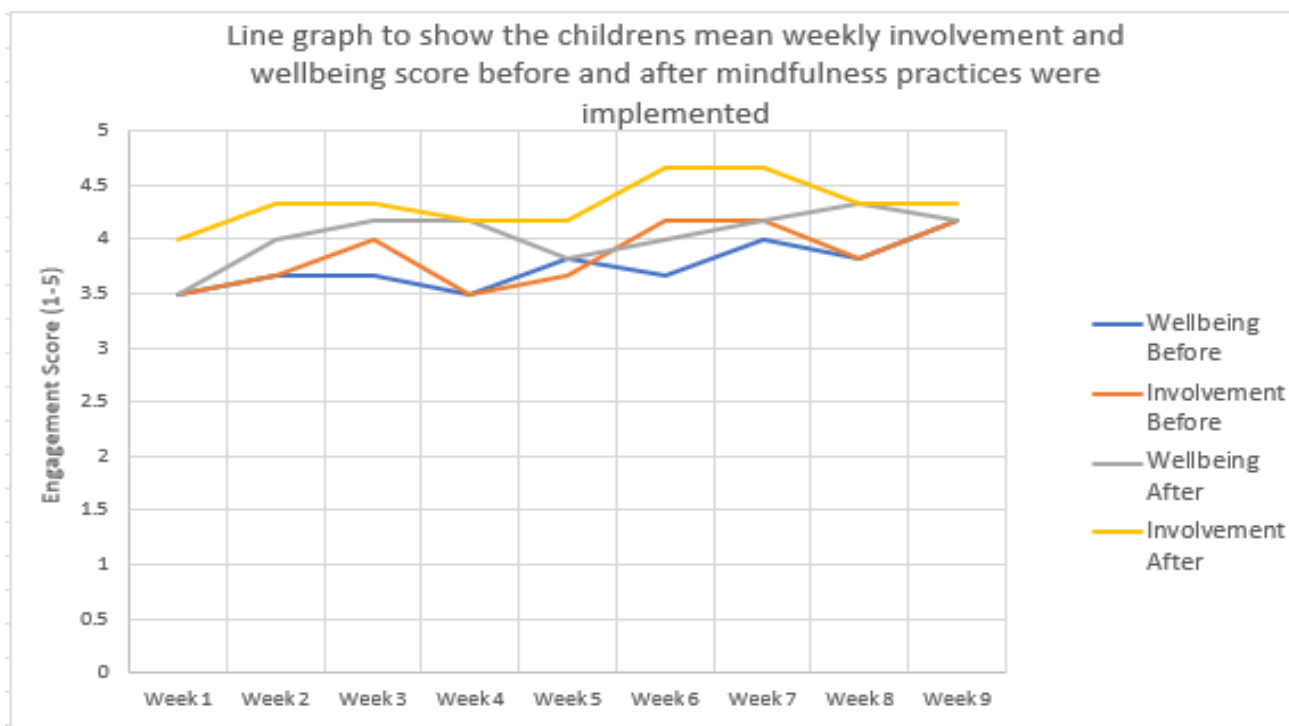


Figure 2 visually shows the progression in all six children’s wellbeing and engagement over the nine-week period. The results were produced by adding each individual child’s scores and calculating a mean for each of the nine weeks. An overall increase in children’s mean engagement scores is shown across the nine weeks. However, there is a slight decrease in engagement during week 4 and 5 when guided meditation was implemented but increased again during week 6. An overall increase in children’s mean wellbeing scores is also shown. However, again there is a slight decrease in wellbeing during week 4 and 5 suggesting wellbeing and engagement are co-dependent.

4.4 Child interviews from focus group

Question	Quantitative Answers	Qualitative Answers
‘Did you enjoy doing the mindfulness strategies in class?’	Yes - 6 participants No - 0 participants	
‘How did the mindfulness strategies make you feel?’		Main themes: <ul style="list-style-type: none"> • Happy • Calm • Relaxed • “I feel calm when I lie down” • “I stop moving on the carpet as much” • “I have a calm body”

		<ul style="list-style-type: none"> • “makes me feel calm and really happy” • “I feel really relaxed” • “relaxed”
<p>‘Which Mindfulness strategy did you like the most?’</p>	<ul style="list-style-type: none"> • Guided breathing exercises - 5 participants • Yoga - 1 participant • Guided meditations - 0 participants 	<ul style="list-style-type: none"> • “I like the breathing then the yoga but not the yoga because I don’t like stretching”. • “I like the breathing I don’t know why I do but I do” • “I like the breathing because it’s really fun” • “I can do the breathing on my own” • “I like using my hands when I breathe” • “I like the yoga because it makes me relaxed but also I laugh sometime”
<p>‘Do you think after doing a mindfulness strategy you could concentrate more in class?’</p>	<p>Yes – 5 participants No – 1 participant</p>	<ul style="list-style-type: none"> • “I feel ready to learn” • “I can listen to the teacher better after because I have a calm body” • “yeah I don’t move on the carpet as much” • “ Yeah I can listen good” • “Yes I don’t talk to my friends and do all my work” • “No I don’t think so”
<p>‘Do you do mindfulness strategies at home?’</p>	<p>Yes - 4 participants No - 2 participants</p>	<ul style="list-style-type: none"> • “Mummy does it too with me” • “I like to do the breathing with my sisters at home” • “I only like to do it at school with the teacher” • “I like to do the breathing on my own when I’m playing at home” • “only sometimes”

		<ul style="list-style-type: none"> • “Yeah I teach my little brother breathing at home”
--	--	--

As seen in table 3 both quantitative and qualitative data were produced from the child interview questions above:

Quantitative data was produced from closed questions within the interview. When asked ‘did you enjoy doing the mindfulness strategies in class?’ all 6 children replied yes reflecting positive attitudes towards mindfulness. When asked ‘Which Mindfulness strategy did you like the most?’ five children stated mindful breathing and one child stated yoga highlighting breathing exercises were the most popular among the children. When asked ‘do you think after doing a mindfulness strategy you could concentrate more in class?’ five children stated yes, and one child stated no. When asked ‘Do you think after doing a mindfulness strategy you could concentrate more in class?’ five out of six children replied yes suggesting they feel a positive change after practicing mindfulness. Finally, four out of six children stated they do mindfulness at home suggesting it is useful beyond school for some individuals.

Qualitative data produced from the open questions produced themes when analysed. In response to the question ‘How did the mindfulness strategies make you feel?’ the three main themes produced were happy, calm and relaxed all indicating a positive perspective of mindfulness from children. Direct quotes are also seen in the findings table ensuring insuring pupil voice is kept within the research.

5. Discussion

This section of the research paper will aim to discuss the reasoning behind the findings from this research project in relation to literature. The discussion will also highlight any potential limitations of the study and implications for future practice. The findings taken from the questionnaires, observations and interviews to produce key themes of discussion seen below. Acknowledgements of the behavioural and academic benefits of mindfulness which became apparent in this research will also be discussed. A final discussion combining all the findings will then be made.

Overall themes from findings:

- Social, emotional and psychological wellbeing and engagement in learning
- Behavioural benefits
- Academic benefits

5.1 Questionnaires

The opinions of the teachers collected from the questionnaires suggest an overall positive view of mindfulness and also support the theory that child wellbeing and engagement are co-dependent thus supporting the research in the literature review. This suggests it is not negative views towards the effectiveness of mindfulness preventing its implementation, but barriers faced by teachers seen in the themes found such as lack of time and training. Browning and Romer (2020) support this as their results from teacher interviews found teachers wanted to implement mindfulness into their classroom but struggled to practically achieve this regularly. Although seven out of eight teachers stated they implement mindfulness, this does not indicate if it is practiced regularly. However, many educational researchers advocate that mindfulness strategies can be easily implemented into a primary classroom daily routine if teachers carefully evaluate the best strategies for their students (Burnett 2009; Ricarte 2025; Weare 2018).

However, unfortunately not all teachers within the school completed the questionnaire reducing the sample size. The research of Burnett (2009) into mindfulness within education stated high teacher workload can be a factor preventing teachers' participation in their research perhaps suggesting the reason not all teachers in this study completed the questionnaire. Cohen, Manion and Morrison (2017) highlight intrusion into the life of the participant can be an ethical issue of questionnaires. However, Mutch (2013) states a questionnaire is still an appropriate collection method as teacher interviews would have taken more time. The questionnaire was also kept short and was kept anonymous to reduce the ethical issue surrounding intrusion to life but also increasing the reliability and validity of the data as anonymity can lead to more truthful answers (Lochmiller and Lester 2015; Cohen, Manion and Morrison 2019). Therefore, the positive views of mindfulness from teacher's perspectives are more likely to be true and valid.

5.2 Observations

The overall findings from the whole class observations support the positive results of the focus group observations but provide a larger sample size increasing reliability and validity. However, Punch (2009) indicates twenty two students is still a small sample size and this should be acknowledged. From the whole class observations, the impact on behaviour and academic achievement was also shown as well as wellbeing and engagement in learning. However, it should be highlighted the whole class observations also note some individuals struggled with behaviour and confidence to participate when practicing mindfulness. However, these individuals improved in these areas as they became more familiar with the mindfulness practices. Ager, Albrecht and Cohen (2015) support this observed improvement, stating mindfulness is often a challenging concept for young children to grasp and requires time to develop. Miller, Connolly and Maguire

(2013) state that not all children will benefit the same from strategies this is reflected in the different levels of mean scores seen in the bar charts. However overall, the majority of the class made progress in all areas.

When comparing the findings from the focus group observations a link between children's wellbeing and engagement in learning can be seen. For example, child 4 had low scores of wellbeing and thus low scores of engagements whereas child 5 had high scores of both wellbeing and engagement. These findings support the reading within the literature review, that wellbeing and engagement in learning are mutually reassuring. However, these differences in scores between children also suggest mindfulness can affect in varied ways. Jirout et al. (2019) argue this is due to other external such as home environment and internal factors such as SEND.

However, observations via the Leuven scale may have been biased as Hine and Lavery (2014) indicate individual observations may be biased especially when conducted by the researcher. However, moderations of the observations were made by other teachers within the school therefore reducing this limitation and increasing the validity of the data produced. Another limitation to be highlighted is that the observations could have been over a longer period. McNiff (2021) highlights this is important to allow the cyclical action research process to occur multiple times. Therefore, future research could look into the long term effects of mindfulness over a longer period of time.

5.3 Interviews

Overall, the interviews with six children show the children felt mindfulness had supported both their wellbeing and engagement in learning. From the interviews, mindful breathing was seen as the most popular within the focus group. Mindful breathing exercises were also seen as the most popular in the whole class observations notes when stating groups of children could be seen practicing mindful breathing in their own time within the provision areas and on the playground at break. Cloutier (2011) explains mindful breathing can often be popular among young children as it is a strategy children can practice independently. This can be reflected in children stating they carry out mindful breathing at home with one child quoting "Yeah, I teach my little brother breathing at home. This compares to other strategies such as guided meditation and yoga which often require an adult (Rix and Bernay 2014; Axelrod and Santagata 2022).

However, Lewis (2001) acknowledges an ethical concern when interviewing children. As the participants were in year 1 (five and six year olds) a possibility of adults influencing their responses may have challenged the validity of the data produced as the children may not have understood the questions (Punch 2009; Cohen, Manion and Morrison 2018). However leading questions were avoided as which Manion and Morrison (2018) highlight can reduce the mentioned

ethical concern when interviewing young children. The interviews also took part in the familiar classroom environment increasing the likelihood of the children feeling comfortable and confident to answer independently (Cain 2011; McNiff 2021).

As stated previously Miller, Connolly and Maguire (2013) acknowledge individual children may respond to mindfulness differently. This is reflected in the contrast of opinions from children as two stated “mummy does it too with me at home” and “I like to do the breathing with my sisters at home” whereas one child said, “I only like to do it at school with my teacher”. This is also reflected in the children’s responses to the question ‘Which Mindfulness strategy did you like the most?’ as 5 children answered mindful breathing and one answered yoga. Therefore, Reinke (2011) explains it is vital teachers do not assume one specific strategy will be the most beneficial for all children.

5.4 Overall discussion of findings

The findings from all mentioned research methods will now be combined to provide an overall discussion regarding the effects of mindfulness on children’s wellbeing and engagement in learning. An acknowledgement of the effects of mindfulness on children’s behaviour and academic achievement will also be made. Some implications for future practice will also be evaluated and discussed.

The effects of mindfulness strategies on wellbeing and engagement in learning

Drawing all the discussions together overall mindfulness can be seen as a positive strategy from the both the opinions of teachers and students and the evidence of the observations.

Positive views specifically towards mindful breathing exercises are seen in the findings of the child interviews and teacher questionnaires. No children stated they liked the guided mediation the most therefore this could suggest why weeks 4 and 5 had a slight decrease in wellbeing and engagement scores. Crescentini et al. (2016) explain this could be because young children can find meditation hard as it requires a very still state of mind.

Therefore, the findings show specific mindfulness strategies can be deemed more effective than others overall within the class and between individual children. Therefore, it can be suggested further research into more mindfulness strategies such as body scanning, mindful walking and mindful observations could be done (Sauer-Zavala 2013; Vickery and Dorjee 2016).

The effects of mindfulness on children’s academic achievement and behaviour

The behavioural and academic benefits of mindfulness are two factors which became apparent within this research. Cloutier (2011) found when mindful breathing was implemented into classrooms children’s academic scores increased. Norton and Griffith (2020) found when a whole

school mindfulness programme was implemented within high schools the number of detentions decreased. Borg (2015) states positive behaviour and academic achievement are co-dependent and is a fundamental educational theory. Therefore, perhaps more research into the effects of mindfulness specifically on children's behaviour or academic achievement could be done. To conclude this discussion, this research has had an impact on my future practice as a future teacher. I aim to play an important role in ensuring my teaching supports the wellbeing of my students and hope to advocate the implementation of mindfulness to other teachers. Teachers should always reflect on their practices and consider new practices supported by research.

6. Conclusion

Overall, the results of this study clearly indicate that mindfulness can have a positive impact on children's holistic wellbeing and on their engagement in learning, as well as their behaviour and academic achievement. The research also reinforces the link between wellbeing and engagement in learning. Mindfulness practices can therefore be a useful tool in promoting emotional wellbeing and reducing stress and anxiety in primary school children. However, further research is needed to determine the most effective ways to implement mindfulness programs in schools and to measure their long-term effects. Ultimately, it is important to note that that mindfulness practices should be used as part of a comprehensive approach to supporting children's engagement in learning and should not be seen simply as a replacement for other forms of support or intervention.

When looking at the implications of this research paper it should be acknowledged that, although mindfulness can clearly be effective and bring various benefits to children, nonetheless specific mindfulness strategies may be more effective for some individuals than for others. Therefore, teachers should take into consideration the particular needs of their individual students to evaluate the most suitable and practical strategies to be implemented into their classrooms.

By incorporating mindfulness strategies into the classroom, teachers can help to create a more supportive and positive learning environment. These practices can help students develop skills to manage stress and anxiety, improve focus and engagement, enhance behaviour and promote positive wellbeing. When students feel supported and engaged in their learning experiences, they are more likely to succeed academically and develop a lifelong love of learning.

Reference list:

- Ager, K., Albrecht, N. and Cohen, M., (2015). *Mindfulness in schools research project: Exploring students' perspectives of mindfulness-What are students' perspectives of learning mindfulness practices at school?* *Psychology*, 6(7), pp.896-914.
- Amholt, T.T., Dammeyer, J., Carter, R. and Niclasen, J., (2020). *Psychological well-being and academic achievement among school-aged children: A systematic review.* *Child Indicators Research*, 13, pp.1523-1548.
- Amundsen, R., Riby, L.M., Hamilton, C., Hope, M. and McGann, D., (2020). *Mindfulness in primary school children as a route to enhanced life satisfaction, positive outlook and effective emotion regulation.* *BMC psychology*, 8(1), pp.1-15.
- Ashikkali, L., Carroll, W. and Johnson, C., (2020). *The indirect impact of COVID-19 on child health.* *Paediatrics and child health*, 30(12), pp.430-437.
- Axelrod, M.I. and Santagata, M.L., (2022). *Evaluating a mindfulness-based intervention to improve academic engagement.* *Journal of applied School Psychology*, 38(3), pp.262-282.
- Bannirchelvam, B., Bell, K.L. and Costello, S., (2017). *A qualitative exploration of primary school students' experience and utilisation of mindfulness.* *Contemporary School Psychology*, 21, pp.304-316.
- Barber, J., (2013). *Leuven wellbeing scales.* *Early Years Educator*, 15(6), pp.32-34.

- Best, R. (2008) *'Education, Support and the Development of the Whole Person.'* *British Journal of Guidance & Counselling*. Vol.36(4). pp. 343-351.
- Bethune, A., (2018). *Wellbeing in the Primary Classroom.* 1st ed. London: Bloomsbury Publishing.
- Boekaerts, M. and Pekrun, R., (2015). *Emotions and emotion regulation in academic settings.* In *Handbook of educational psychology* (pp. 90-104). Routledge.
- Boekaerts, M. and Pekrun, R., (2016). *Emotions and Emotion Regulation in Academic Settings.* In: L. Corno and E. Anderman, ed., *Handbook of Educational Psychology*, 3rd ed. Oxon: Routledge, pp.76-90.
- Borg, E., (2015). *Classroom behaviour and academic achievement: How classroom behaviour categories relate to gender and academic performance.* *British Journal of Sociology of Education*, 36(8), pp.1127-1148.
- Bostic, J.Q., Nevarez, M.D., Potter, M.P., Prince, J.B., Benningfield, M.M. and Aguirre, B.A., (2015). *Being present at school: Implementing mindfulness in schools.* *Child and Adolescent Psychiatric Clinics*, 24(2), pp.245-259.
- Bostic, J.Q., Nevarez, M.D., Potter, M.P., Prince, J.B., Benningfield, M.M. and Aguirre, B.A., (2015). *Being present at school: Implementing mindfulness in schools.* *Child and Adolescent Psychiatric Clinics*, 24(2), pp.245-259.
- Brännlund, A., Strandh, M. and Nilsson, K., (2017). *Mental-health and educational achievement: the link between poor mental-health and upper secondary school completion and grades.* *Journal of Mental Health*, 26(4), pp.318-325.
- Browning, A. and Romer, N., (2020). *Mindfulness-Based Practices for Schools.* West Ed.
- Burnett, R., (2009). *Mindfulness in schools. Learning lessons from the adults—secular and Buddhist.*
- Burton, M., Barrell, R., Howard, C. and Levermore, D., (2017). *Children's Mental Health and Emotional Well-Being in Primary Schools.* 1st ed. London: SAGE Publications
- Cain, T., (2011). *Teachers' classroom-based action research.* *International Journal of Research & Method in Education*, 34(1), pp.3-16.

- Causton-Theoharis, J. and Theoharis, G., (2009). *Creating inclusive schools for all students. The Education Digest, 74(6)*, p.43.
- Chu, P.S., Saucier, D.A. and Hafner, E., (2010). *Meta-analysis of the relationships between social support and well-being in children and adolescents. Journal of social and clinical psychology, 29(6)*, pp.624-645.
- Clarke, V. and Braun, V., (2013). *Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning. The psychologist, 26(2)*.
- Cloutier, S.E., (2011). *Mindful breathing in the classroom to increase academic scores. Teaching Innovation Projects, 1(1)*.
- Cohen, L., Manion, L. and Morrison, K. (2017). *Research Methods in Education*. 8th ed. New York: Routledge.
- Cohen, L., Manion, L. and Morrison, K. (2017). *Research Methods in Education*. 8th ed. New York: Routledge.
- Cook, B.G. and Shepherd, K.G. (2012). *Facilitating the effective implementation of evidence-based practices through teacher-parent collaboration. Teaching Exceptional Children, 44(3)*, pp.22-30.
- Costello, P.J.M. (2011). *Effective action research: developing reflective thinking and practice*. New York: Continuum.
- Crescentini, C., Capurso, V., Furlan, S. and Fabbro, F., (2016). *Mindfulness-oriented meditation for primary school children: Effects on attention and psychological well-being. Frontiers in psychology, 7*, p.805.
- Denscombe, M. (2014). *The Good Research Guide: for small-scale Social Research Projects*. 5th ed. Maidenhead, England: Mcgraw-Hill/Open University Press.
- Department for Education (2011) *Teachers' Standards*. Available at: <https://www.gov.uk/government/publications/teachers-standards> (Accessed: 2 Jan 2023).
- El Nokali, N.E., Bachman, H.J. and Votruba-Drzal, E., (2010). *Parent involvement and children's academic and social development in elementary school. Child development, 81(3)*, pp.988-1005.
- Felver, J.C., Tipsord, J.M., Morris, M.J., Racer, K.H. and Dishion, T.J., (2017). *The effects of mindfulness-based intervention on children's attention regulation. Journal of Attention Disorders, 21(10)*, pp.872-881.
- Ferguson, D.L., Desjarlais, A. and Meyer, G., (2000). *Improving Education: The Promise of Inclusive Schooling*.
- Fore, H.H., (2020). *A wake-up call: COVID-19 and its impact on children's health and wellbeing. The Lancet Global Health, 8(7)*, pp. e861-e862.)
- Forster, C. and Eperjesi, R. (2021) *Action Research for Student Teachers*, 2nd edition. London: SAGE Publications
- Germer, C., 2004. *What is mindfulness? Insight journal, 22(3)*, pp.24-29.

- Graham, A., Phelps, R., Maddison, C. and Fitzgerald, R., (2011). *Supporting children's mental health in schools: Teacher views. Teachers and Teaching*, 17(4), pp.479-496.
- Norton, K.R. and Griffith, G.M., (2020). *The impact of delivering mindfulness-based programmes in schools: A qualitative study. Journal of Child and Family Studies*, 29, pp.2623-2636.
- Gupta, S. and Jawanda, M.K., (2020). *The impacts of COVID-19 on children. Acta Paediatrica (Oslo, Norway: 1992)*, 109(11), p.2181.
- Hayes, D., Moore, A., Stapley, E., Humphrey, N., Mansfield, R., Santos, J., Ashworth, E., Patalay, P., Bonin, E.M., Moltrecht, B. and Boehnke, J.R., (2019). *Promoting mental health and wellbeing in schools: examining Mindfulness, Relaxation and Strategies for Safety and Wellbeing in English primary and secondary schools: study protocol for a multi-school, cluster randomised controlled trial (INSPIRE). Trials*, 20(1), pp.1-13.
- Head, G., (2020). *Ethics in educational research: Review boards, ethical issues and researcher development. European Educational Research Journal*, 19(1), pp.72-83.
- Hine, G.S. and Lavery, S.D., 2014. Action research: Informing professional practice within schools. *Issues in Educational Research*, 24(2), pp.162-173.
- Indriyani, I.E., Syaharuddin, S. and Jumriani, J., (2021). *Social interaction contents on social studies learning to improve social skills. The Innovation of Social Studies Journal*, 2(2), pp.93-102.
- Jirout, J., LoCasale-Crouch, J., Turnbull, K., Gu, Y., Cubides, M., Garziona, S., Evans, T.M., Weltman, A.L. and Kranz, S., (2019). *How lifestyle factors affect cognitive and executive function and the ability to learn in children. Nutrients*, 11(8), p.1953.
- Johnson, A.P. (2012). *A short guide to action research*. Boston; Montreal: Pearson.
- Kabat-Zinn, J., 2015. Mindfulness. *Mindfulness*, 6(6), pp.1481-1483.
- Kemmis, S., McTaggart, R. and Nixon, R. (2016). *Action Research Planner: Doing Critical Participatory Action Research*. Springer.
- Kiuru, N., Wang, M.T., Salmela-Aro, K., Kannas, L., Ahonen, T. and Hirvonen, R., (2020). *Associations between adolescents' interpersonal relationships, school well-being, and academic achievement during educational transitions. Journal of youth and adolescence*, 49, pp.1057-1072.
- Koshy, V. (2005). *Action research for improving practice a practical guide*. London: Paul Chapman Pub.
- Kutsyuruba, B., Klinger, D.A. and Hussain, A., (2015). *Relationships among school climate, school safety, and student achievement and well-being: a review of the literature. Review of Education*, 3(2), pp.103-135.
- Lawson, A. (2009). *Action research: making a difference in education*. Slough: National Foundation for Educational Research.
- Lewis, A., (2001). *Reflections on interviewing children and young people as a method of inquiry in exploring their perspectives on integration/inclusion. Journal of Research in Special Educational Needs*, 1(3), pp.no-no.
- Liccardi, I., Ounnas, A., Pau, R., Massey, E., Kinnunen, P., Lewthwaite, S., Midy, M.A. and Sarkar, C., (2007). *The role of social networks in students' learning experiences. ACM Sigcse Bulletin*, 39(4), pp.224-237.

- Lochmiller, C.R. and Lester, J.N., (2015). *An introduction to educational research: Connecting methods to practice*. Sage Publications.
- MacRae, C. and Jones, L., (2020). *A philosophical reflection on the “Leuven Scale” and young children’s expressions of involvement*. *International Journal of Qualitative Studies in Education*, pp.1-13.
- Mahmoudi, S. (2012) ‘*Holistic education: An approach for 21 Century*’, *International Education Studies*, 5(3). doi:10.5539/ies. v5n3p178.
- Mcmillan, J.H. and Schumacher, S. (2014). *Research in education: Evidence-based inquiry*. Harlow, Essex: Pearson.
- McNiff, J. (2021) *Action Research: All You Need to Know*. London: SAGE Publications.
- Mertler, C.A., (2013). *Classroom-based action research: Revisiting the process as customizable and meaningful professional development for educators*.
- Miller, S., Connolly, P. and Maguire, L., (2013). *Wellbeing, academic buoyancy and educational achievement in primary school students*. *International Journal of Educational Research*, [online] 62, pp.239-248. Available at: (Accessed 17 May 2022).
- Mukolo, A., Heflinger, C.A. and Wallston, K.A., (2010). *The stigma of childhood mental disorders: A conceptual framework*. *Journal of the American Academy of Child & Adolescent Psychiatry*, 49(2), pp.92-103.
- Mutch, C., (2013). *Doing educational research*. Nzcer Press.
- O’Keeffe, P., (2013). *A sense of belonging: Improving student retention*. *College Student Journal*, 47(4), pp.605-613.
- Opie, C. (2004). *Doing Educational Research: A Guide to first-time Researchers*. London: Sage.
- Pekrun, R. and Linnenbrink-Garcia, L., (2014). *Introduction to emotions in education*. In *International handbook of emotions in education* (pp. 11-20). Routledge.
- Pianta, R.C., Hamre, B.K. and Allen, J.P., (2012). *Teacher-student relationships and engagement: Conceptualizing, measuring, and improving the capacity of classroom interactions*. In *Handbook of research on student engagement* (pp. 365-386). Boston, MA: Springer US.
- Punch, K.F. (2009). *Introduction to Research Methods in Education*. SAGE.
- Reinke, W.M., Stormont, M., Herman, K.C., Puri, R. and Goel, N., (2011). *Supporting children’s mental health in schools: Teacher perceptions of needs, roles, and barriers*. *School psychology quarterly*, 26(1), p.1.
- Ricarte, J.J., Ros, L., Latorre, J.M. and Beltrán, M.T., (2015). *Mindfulness-based intervention in a rural primary school: Effects on attention, concentration and mood*. *International Journal of Cognitive Therapy*, 8(3), pp.258-270.
- Rix, G. and Bernay, R., (2014). *A study of the effects of mindfulness in five primary schools in New Zealand*. *Teachers’ Work*, 11(2), pp.201-220.

- Roorda, D.L., Koomen, H.M., Spilt, J.L. and Oort, F.J., (2011). *The influence of affective teacher–student relationships on students’ school engagement and achievement: A meta-analytic approach. Review of educational research, 81(4)*, pp.493-529.
- Sauer-Zavala, S.E., Walsh, E.C., Eisenlohr-Moul, T.A. and Lykins, E.L., (2013). *Comparing mindfulness-based intervention strategies: Differential effects of sitting meditation, body scan, and mindful yoga. Mindfulness, 4*, pp.383-388.
- Siegel, R.D., Germer, C.K. and Olendzki, A., (2009). *Mindfulness: What is it? Where did it come from? Clinical handbook of mindfulness*, pp.17-35.
- Stutchbury, K. and Fox, A., (2009). *Ethics in educational research: introducing a methodological tool for effective ethical analysis. Cambridge Journal of Education, 39(4)*, pp.489-504.
- Terry, G., Hayfield, N., Clarke, V. and Braun, V., (2017). Thematic analysis. *The SAGE handbook of qualitative research in psychology, 2*, pp.17-37.
- The Gov white paper (2022)- Acknowledges greater support is needed to support children’s well-being in schools.
- Vickery, C.E. and Dorjee, D., (2016). *Mindfulness training in primary schools decreases negative affect and increases meta-cognition in children. Frontiers in psychology, 6*, p.2025.
- Weare, K., (2012). Evidence for the impact of mindfulness on children and young people. *The mindfulness in schools project in association with mood disorders centre.*
- Weare, K., (2015). What works in promoting social and emotional well-being and responding to mental health problems in schools. *London: National Children’s Bureau*, pp.1-15.
- Weare, K., (2018). *The evidence for mindfulness in schools for children and young people. Manuskript, University of Southampton. Online via: <https://mindfulnessinschools.org/wpcontent/uploads/2018/04/Weare-Evidence-Review-Final.pdf>.*
- Wu, L. and Ma, C., (2022). *An Empirical Study on the Relationship among Mental Health, Learning Engagement, and Academic Self-Efficacy of Senior High School Students. Journal of Environmental and Public Health, 2022.*
- Xerri, D., (2017). Using questionnaires in teacher research. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas, 90(3)*, pp.65-69.
- Yang, L.H. and Link, B.G., (2016). *Measurement of attitudes, beliefs and behaviours of mental health and mental illness. In National Academy of Science.*

Appendices:

Appendix 1- Interview questions for teachers

Questionnaire for teachers.

1. Have you ever implemented mindfulness strategies within your classroom? Yes/no

- Mindful colouring
- Body scan meditation
- Daily gratitude
- Nature connectedness

2. If yes how often do you implement these strategies

- Termly
- monthly
- Weekly
- Daily

3. What barriers do you feel you would face towards implementing classroom mindfulness strategies within your classroom?

4. Every class should have mindfulness implemented within the day

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

5. Mindfulness strategies can improve students' engagement

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

6. All children can benefit from mindfulness.

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

7. There is a link between student wellbeing and student engagement

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

8. There is a link between student wellbeing and engagement.

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

9. Overall, mindfulness strategies have a positive effect on student engagement in learning

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

10. Overall mindfulness strategies have a positive effect on student wellbeing

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

Appendix 2-

Leuven scale record sheet

The Leuven Scales Group Two-Minute Observation Sheet

Date:			Time:							
Areas of Learning										
Prime Areas			Specific Areas							
C&L	PSED	PD	L	M	UtW	EAD				
What is being observed?										
What is the child doing?										
Child's Name	Wellbeing (circle appropriate level)					Involvement (circle appropriate level)				
	1	2	3	4	5	1	2	3	4	5
	1	2	3	4	5	1	2	3	4	5
	1	2	3	4	5	1	2	3	4	5
	1	2	3	4	5	1	2	3	4	5
	1	2	3	4	5	1	2	3	4	5
	1	2	3	4	5	1	2	3	4	5
	1	2	3	4	5	1	2	3	4	5
	1	2	3	4	5	1	2	3	4	5
Key:										
1	Extremely Low	2	Low	3	Moderate	4	High	5	Extremely High	

Appendix 3-

Interview questions for children

Question
'Did you enjoy doing the mindfulness strategies in class?'

'How did the mindfulness strategies make you feel?'
'Which Mindfulness strategy did you like the most?'
'Do you think after doing a mindfulness strategy you could concentrate more in class?'
'Do you do mindfulness strategies at home?'