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University of Southampton

Faculty of Environmental and Life Sciences

School of Psychology

What do young people say helps or hinders their sense of school belonging and how does teacher involvement in a gratitude diary intervention impact on feelings of gratitude and belonging?

by

Rachael Young

Thesis for the degree of Doctorate in Educational Psychology

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Abstract

Faculty of Environmental and Life Sciences

School of Psychology

Doctorate in Educational Psychology

What do young people say helps or hinders their sense of school belonging and how does teacher involvement in a gratitude diary intervention impact on feelings of gratitude and belonging?

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The concepts of gratitude and belonging are associated with the field of positive psychology and have been found to correlate with measures of wellbeing. However, whilst there are many quantitative studies correlating sense of school belonging with various outcome measures, there are few studies that seek the views of young people directly about what helps or hinders sense of school belonging. In chapter 2, I describe a systematic review and thematic synthesis of twelve studies that explored children's own views and experiences, which could then inform school practice. Mixed method and qualitative papers that sought views of young people from 5-19 were eligible for inclusion. I inferred that Being accepted for who you are, Wanting to learn but not always feeling able to, Feeling cared for (or not) and How you connect (or don't) to school were all important factors in helping or hindering school belonging. Implications for schools, as well as suggestions for future research are discussed.

One intervention that has been linked to increases in school belonging is the use of gratitude diaries. Although results are mixed, with some studies showing no effect of a gratitude diary compared to a neutral events diary, other studies have found evidence to suggest that recording gratitude regularly increases children's overall level of gratitude, as well as their sense of school belonging (SoSB). Chapter 3 describes an empirical study that sought to add another variable to the study of this topic: the impact of teacher involvement in a gratitude diary intervention, based on literature that suggests teachers have an important role to play in increasing children's gratitude and SoSB. Children in a large junior school in the south of England were randomly assigned by class to one of four conditions: gratitude diary with teacher involvement, gratitude diary without teacher involvement, events diary with teacher involvement and events diary without teacher involvement. Measures of gratitude and SoSB were taken at baseline, on completion of the intervention and at follow up, and an ANOVA was used to analyse the results. Although there were no significant effects of the diary or teacher conditions over time, there was an interaction between diary and teacher for measure of gratitude, indicating that teacher involvement led to more gratitude in those completing a gratitude diary but less gratitude for those completing an events diary. Teacher involvement also led to improvements in gratitude from the end of the study to follow up for both diary conditions. The strengths and weaknesses of the study are discussed. It is tentatively suggested that teacher involvement may be beneficial for universal gratitude interventions but that further research is needed, including whether gratitude may be more beneficial as a targeted intervention.

Table of Contents

| | |
|--|-------------------------------------|
| Table of Contents | 3 |
| Table of Tables | 7 |
| Table of Figures | 8 |
| Research Thesis: Declaration of Authorship..... | 9 |
| Acknowledgements..... | 10 |
| Definitions and Abbreviations..... | 11 |
| Chapter 1 Introduction | 13 |
| 1.1 Gratitude..... | 13 |
| 1.2 Wellbeing..... | Error! Bookmark not defined. |
| 1.3 Aims, rationale and personal reflexivity | 13 |
| 1.4 Ontology and Epistemology..... | 15 |
| 1.5 Dissemination plan..... | 16 |
| Chapter 2 What do children and young people say helps and hinders their sense of school belonging? A systematic review and thematic synthesis. | 16 |
| 2.1 Abstract | 16 |
| 2.2 Introduction | 17 |
| 2.2.1 School Belonging | 18 |
| 2.2.2 Factors affecting school belonging..... | 18 |
| 2.2.3 Effects of school belonging on different groups | 19 |
| 2.3 Methodology | 20 |
| 2.3.1 Selection and search strategy | 20 |
| 2.3.2 Quality appraisal..... | 22 |
| 2.3.3 Data extraction and synthesis | 24 |
| 2.4 Findings | 30 |
| 2.4.1 Theme one: Being accepted for who you are | 31 |
| 2.4.1.1 Sub theme one: discrimination | 32 |

Table of Contents

| | | |
|------------------|--|-------------------------------------|
| 2.4.1.2 | Sub theme two: being yourself versus fitting in | 33 |
| 2.4.2 | Theme two: wanting to learn but not always feeling able to | 34 |
| 2.4.2.1 | Sub theme one: the way the curriculum is designed hinders belonging | 35 |
| 2.4.2.2 | Sub theme two: needing support with learning..... | 36 |
| 2.4.3 | Theme three: feeling cared for (or not) | 37 |
| 2.4.3.1 | Sub theme one: relationships with teachers | 37 |
| 2.4.3.2 | Sub theme two: relationships with peers | 39 |
| 2.4.4 | Theme four: how you connect (or don't) to school | 41 |
| 2.4.4.1 | Sub theme one: feeling like you could participate | 41 |
| 2.4.4.2 | Sub theme two: having a say over the systems and policies that affect you | 42 |
| 2.4.5 | Theme five: belonging changes over time and space..... | 44 |
| 2.5 | Discussion | 45 |
| 2.5.1 | Summary of findings..... | 45 |
| 2.5.2 | Strengths and limitations of the included studies | 47 |
| 2.5.3 | Strengths and limitations of the review process..... | Error! Bookmark not defined. |
| 2.5.4 | Implications for educational psychologists | 48 |
| 2.5.5 | Suggestions for future research..... | 49 |
| 2.5.6 | Conclusions | 50 |
| Chapter 3 | How does teacher involvement in a gratitude diary impact on feelings of gratitude and belonging?..... | 51 |
| 3.1 | Abstract..... | 51 |
| 3.2 | Introduction | 51 |
| 3.2.1 | Effects of gratitude | 52 |
| 3.2.2 | Gratitude interventions..... | 52 |
| 3.2.3 | Gratitude in children and young people | 53 |
| 3.2.4 | Gratitude and sense of school belonging | 54 |

Table of Contents

| | | |
|------------|--|-----------|
| 3.2.5 | Role of teacher in gratitude and sense of school belonging | 54 |
| 3.2.6 | Current study..... | 56 |
| 3.3 | Method | 57 |
| 3.3.1 | Ethics..... | 57 |
| 3.3.2 | Participants | 57 |
| 3.3.3 | Design..... | 58 |
| 3.3.4 | Measures | 58 |
| 3.3.4.1 | The Belonging Scale..... | 58 |
| 3.3.4.2 | Questionnaire of appreciation in youth (QUAY) | 59 |
| 3.3.5 | Procedure..... | 59 |
| 3.3.6 | Statistical analysis | 62 |
| 3.4 | Results | 62 |
| 3.4.1 | Main analyses..... | 63 |
| 3.4.1.1 | Gratitude (QUAY)..... | 63 |
| 3.4.1.2 | Sense of school belonging..... | 65 |
| 3.4.1.3 | Gender..... | 66 |
| 3.4.1.4 | Randomisation checks..... | 67 |
| 3.4.1.4.1 | QUAY | 67 |
| 3.4.1.4.2 | SoSB | 67 |
| 3.4.1.5 | By class analysis..... | 67 |
| 3.5 | Discussion | 68 |
| 3.5.1 | Discussion of findings | 68 |
| 3.5.1.1 | Hypothesis 1 | 68 |
| 3.5.1.2 | Hypothesis 2 | 69 |
| 3.5.1.3 | Hypothesis 3 | 70 |
| 3.5.1.4 | Findings from exploratory analyses | 70 |
| 3.5.2 | Strengths and limitations..... | 71 |
| 3.5.3 | Future research | 74 |
| 3.5.4 | Implications for practice..... | 74 |

Table of Contents

| | |
|--|------------|
| 3.5.5 Conclusion | 75 |
| Appendix A Adapted CASP appraisal records | 76 |
| Appendix B Thematic synthesis – participant characteristics | 97 |
| Appendix C Figures to show the thematic synthesis process | 100 |
| Appendix D Reflective log examples for systematic review | 101 |
| Appendix E Thematic synthesis – descriptive and analytical themes | 102 |
| Appendix F Ethics application..... | 108 |
| Appendix G The Belonging Scale..... | 119 |
| Appendix H The Questionnaire of Appreciation in Youth..... | 120 |
| Appendix I School Information Sheet | 121 |
| Appendix J School Consent Form | 125 |
| Appendix K Parent Information Sheet..... | 126 |
| Appendix L Script and guidance notes for teachers | 130 |
| Appendix M Diaries | 136 |
| M.1 Front cover of diaries | 136 |
| M.2 Inside events diary..... | 136 |
| M.3 Inside gratitude diary | 137 |
| Appendix N Tables showing a 3 x 2 x 2 x 3 ANOVA for QUAY and Belonging Scale..... | 138 |
| Glossary of Terms | 140 |
| List of References | 141 |

Table of Tables

| | | |
|---------|--|-----|
| Table 1 | Inclusion and exclusion criteria | 21 |
| Table 2 | Results from the quality appraisal of included studies using the adapted CASP criteria | 23 |
| Table 3 | Study characteristics..... | 26 |
| Table 4 | Class and year group in each condition | 58 |
| Table 5 | Demographic information for each group | 62 |
| Table 6 | Descriptive statistics for Gratitude scores across time points | 63 |
| Table 7 | Descriptive statistics for sense of school belonging scores across time points | 65 |
| Table 8 | SPSS results from QUAY | 138 |
| Table 9 | SPSS results from Belonging Scale..... | 139 |

Table of Figures

| | | |
|-----------------------|--|-----|
| Figure 1 | PRISMA flow diagram | 21 |
| Figure 2 and Figure 3 | Mean gratitude scores over time for children completing diaries without teacher involvement and with teacher involvement | 65 |
| Figure 4 and Figure 5 | Mean SoSB scores over time for children completing diaries without teacher involvement and with teacher involvement | 66 |
| Figure 6 | NVivo coding extract for code 'feeling judged | 100 |
| Figure 7 | An example of the three stages of thematic synthesis | 100 |

Research Thesis: Declaration of Authorship

Print name: Rachael Young

Title of thesis: What do you young people say helps or hinders their sense of school belonging and how does teacher involvement in a gratitude diary intervention impact on feelings of gratitude and belonging?

I declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. None of this work has been published before submission

Signature: Date: 31.05.2024

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Definitions and Abbreviations

| | |
|--------------------|--|
| ANOVA | Analysis of Variance |
| AP..... | Alternative Provision |
| CASP | Critical Appraisal Skills Programme |
| α | Cronbach Alpha coefficient (test of internal reliability) |
| CYP | Children and Young People |
| df..... | Degrees of Freedom |
| EBSA..... | Emotionally Based School Avoidance |
| EP..... | Educational Psychologist |
| ERGO..... | Ethics and Research Governance Online |
| F..... | F statistic comparing variances of groups in ANOVA |
| QUAY..... | Questionnaire of Appreciation in Youth |
| HM Government..... | His Majesty's Government |
| IELC..... | Intensive English Language Centres |
| N | Number |
| NA | Negative Affect |
| NEET..... | Not in Education, Employment or Training |
| η_p^2 | Partial Eta Squared Effect Size |
| <i>P</i> | Probability (statistical significance) |
| PA..... | Positive Affect |
| PICOSS..... | Population, Intervention, Comparator, Outcomes, Setting and Study Design |
| PPA..... | Planning, Preparation and Assessment |
| PRISMA..... | Preferred Reporting Items for Systematic Reviews and Meta Analyses |
| SD | Standard Deviation |
| SEN | Special Educational Needs |
| SENCo..... | Special Educational Needs Coordinator |
| SoSB..... | Sense of School Belonging |

Definitions and Abbreviations

SPSS..... Statistical Package for the Social Sciences

STEM Science, Technology, Engineering, Mathematics

TA..... Thematic Analysis

US United States (of America)

USA United States of America

Chapter 1 Introduction

My thesis is comprised of three chapters. Chapter one sets the context for the thesis, situating it within the literature and providing a rationale for the research. Chapter two is a systematic literature review and thematic synthesis exploring the views of children and young people (CYP) on what helps and hinders their sense of school belonging. Chapter three is an empirical study which seeks to understand whether having teacher involvement in a gratitude intervention improves children's gratitude and sense of school belonging (SoSB). Chapter 2 has been written with the intention of submission to the Journal of Positive School Psychology. Chapter 3 has been written with the intention of submission to the Educational and Child Psychology journal.

1.1 Gratitude and wellbeing

Gratitude has been described in the literature both as a trait (or virtue) and as an emotional state (Froh et al., 2008). In this thesis, it is viewed as a trait that can be modified over time through intervention. Gratitude is the feeling a person experiences when they think about the good things in their lives (Baumsteiger et al., 2019). As an emotion, it is considered to be the perception that a person has received a positive outcome (Emmons & McCullough, 2003). It has also been described as a behavioural response to receiving a benefit, which involves expressing thanks (McCullough et al., 2001). It has been suggested that experiencing gratitude can encourage people to act prosocially towards others (McCullough et al., 2001). Studies with adults, as well as children, have attempted to increase a person's gratitude by recording it, such as through letters and diaries. (e.g., Baumsteiger et al., 2019; Emmons and McCullough, 2003; Froh et al., 2008). Gratitude has been linked to wellbeing (Emmons & McCullough, 2003; Froh et al., 2008; McCullough et al., 2002). Wellbeing has been described as positive affect, such as happiness, which affects the whole person (see Watkins, 2004). Diener (1984) found that subjective wellbeing correlated with high positive affect, low negative affect and high satisfaction with life.

1.2 Aims, rationale and personal reflexivity

There were a number of factors that influenced my decision to explore SoSB and gratitude in young people. One is my interest in positive psychology as, rather than focusing on an individual's difficulties, this area of psychology focuses on creating the conditions that they need to flourish (Seligman & Csikzentmihaly, 2000). Broaden-and-build theory (Fredrickson, 2001) suggests that unpleasant emotions narrow a person's focus, whilst pleasant emotions

build personal resources and lead to greater wellbeing. This is something that I draw on daily in my practice, especially during consultations with school staff and parents, and something that I believe can create lasting change. Gratitude is one intervention that may encourage the development of positive emotions, thereby promoting wellbeing. However, results from previous studies are mixed, with some finding significant effects from gratitude diary interventions (Baumsteiger et al., 2019; Cripps, 2019; Diebel et al., 2016; Diniz et al., 2023) and others suggesting no difference in measures of wellbeing compared to a control (Bowen, 2023; Owens & Patterson, 2013; Shuttleworth et al, 2018). The difference in findings from these studies could perhaps be explained by how enjoyable the children found the activity of recording gratitude or whether they found it an obligation. Bowen (2023) explored this and created two different diaries – one that aimed to be positively reinforcing and presented gratitude as an enjoyable activity and one that was negatively reinforcing, presenting gratitude as something to do to avoid being perceived as ungrateful. Although there were no significant differences between the amount of gratitude experienced in these conditions, this thesis builds on Bowen (2023) by using the same format as the positively reinforcing diaries in an attempt to present recording gratitude as a pleasurable activity.

As it has been suggested that gratitude interventions may also lead to greater sense of school belonging (Diebel et al., 2016), I was also interested in finding out more about the concept of belonging to school and how this might be increased. The number of children absent from school has risen over the last few years (HM Government, 2024) and I was interested to know what role SoSB may play in combatting this trend and what schools could do to encourage greater affiliation with school. I decided to take a qualitative approach as there seemed to be a wealth of literature showing the correlations between SoSB and outcome measures such as wellbeing and academic achievement, but this did not offer any insights into why students felt (or did not feel) a sense of belonging to their school or what actions could be taken to continue or improve this.

Another factor that influenced my decision to explore SoSB and gratitude in young people is my background as a teacher. I taught for thirteen years before starting the educational psychology doctorate and, over the years, had different experiences of belonging to the class and wider school. I reflected that when I felt the most belonging, I also felt the most gratitude and this was reflected in the positive messages I gave to my pupils. During the worst times, the messages I gave were often focused on what I saw as disruptive and disrespectful behaviour and it was much harder to notice gratitude. I wondered whether in both cases a cycle had been created where behaviour of the children affected my perception of them and the messages I gave them, which in turn affected their behaviour. This relationship between teacher responses and pupil behaviour is supported by literature. For example, Skinner and Belmont (1993) found reciprocal

effects of student motivation on teacher behaviour. Students who were more engaged received more involvement and support from teachers, whilst those that were disengaged received responses that further undermined their motivation. In addition, using multiple regressions on a sample of 452 middle school students, Wentzel (2002) found that negative feedback from teachers was the most consistent negative predictor of academic and performance and social behaviour.

Interventions that promote teacher wellbeing are likely to be needed as a report published by Ofsted (2019) found that life satisfaction was higher among the general public than among school staff and that teacher's wellbeing was low. Furthermore, quality of teacher-student relationships have been found to impact on teachers' wellbeing (Spilt et al., 2011).

There is research that suggests the importance of teacher-pupil relationships for sense of school belonging (Uslu & Gizir, 2017; Allen et al., 2018, 2021a, 2021b; Slaten et al., 2015). I felt that teachers, therefore, should be involved in gratitude interventions and that this previously unstudied approach could have an impact on both gratitude and SoSB through teachers' own positive emotions being increased, giving them the personal resources that they need to be able to communicate positive messages to their class, and thereby improving the teacher-pupil relationship and increasing the gratitude of both, as well as sense of school belonging.

It is hoped that the findings from chapter 2 and chapter 3 can inform educational practice both in terms of increasing the sense of school belonging that pupils feel (chapter 2), as well as helping educational professionals, including EPs, to make decisions about the appropriateness of gratitude interventions for pupils, as well as the role of teacher involvement in increasing pupils' gratitude and sense of belonging (chapter 3).

1.3 Ontology and Epistemology

Chapter 2 is a qualitative study, whilst chapter 3 is a quantitative study. Chapter 2 presents my interpretation of what both participants and the authors from twelve qualitative studies say helps or hinders SoSB. Chapter 3 is an empirical study that attempts to induce gratitude through the introduction of two independent variables: diary condition and teacher involvement.

The philosophy that incorporates both qualitative and quantitative studies is critical realism. It assumes that reality is multi-layered: real, actual and empirical (Bhaskar, 1978). The empirical domain is what can be observed and experienced (and measured); in the actual domain individuals perform actions or don't, which leads to events or non-events; and the real domain consists of all of the hidden structures that enables action to be taken (or not taken) in the actual domain.

Critical realism acknowledges the role of subjective interpretation (Taylor, 2018). This aligns with my interpretations of the views of young people and researchers in chapter 2 and acknowledges the role of the researcher in constructing that knowledge that cannot be objectively measured. The themes that were generated from the data are dependent on the meaning I assign to them.

Additionally, critical realism asserts that there is a reality that operates independently of our knowledge or awareness of it. Observable events are the actualisation of unobservable internal mechanisms (Zhang, 2023). Therefore, the empirical study in chapter 3 fits within this epistemology.

1.4 Dissemination plan

My intention is to publish chapter 2 and 3 in peer-reviewed journals. The journal I have chosen for Chapter 2 is Journal of Positive School Psychology. This international journal provides a forum for positive psychology in educational settings. The journal I have chosen for chapter 3 is Educational and Child Psychology. This journal focuses on the application of psychology to education with the aim of stimulating conversations and deepening understanding of the issues affecting education. Its audience is diverse and includes psychologists and educational professionals.

As well as publication, I plan to disseminate the results of both chapters to my current placement local authority through a presentation, as well as presenting my findings of chapter 3 to the school that agreed to take part in the research.

Chapter 2 What do children and young people say helps and hinders their sense of school belonging? A systematic review and thematic synthesis.

2.1 Abstract

Sense of belonging is considered to be a basic human need and is central to many theories concerned with human flourishing. Sense of school belonging is correlated with a range of outcomes for children and adolescents, including academic success, self-esteem and depression. Whilst there is a lot of quantitative research focusing on the factors of sense of

school belonging, the aim of this systematic literature review was to get a deeper understanding of what young people feel helps or hinders their sense of school belonging. A thematic synthesis approach was used to synthesise qualitative findings from twelve studies. Qualitative and mixed methods papers that included the views of children and young people from 5 to 19 were eligible for inclusion. The following themes were generated through this synthesis: Being accepted for who you are, Wanting to learn but not always feeling able to, Feeling cared for (or not) and How you connect (or don't) to school. These themes support the findings of previous studies and provide implications for how sense of school belonging might be developed in practice. Opportunities for future research as well as the strengths and limitations of this systematic literature review and thematic synthesis are discussed.

2.2 Introduction

Sense of belonging is proposed to be a fundamental human motivation (Baumeister & Leary, 1995). Evidence for this theory includes the research of Tajfel et al. (1971) who found that arbitrarily assigning participants to groups was enough for them to allocate greater rewards for in-group members than outgroup members. Baumeister and Leary (1995) suggest that humans are driven to form and maintain positive, lasting relationships and that interactions need to be frequent and pleasant and in the context of stable relationships where each other's welfare is of concern. They propose that a lack of belongingness can have negative consequences, such as stress and possibly health problems. They also found in experimental studies that threats to belonging can affect cognitive performance (Baumeister & DeWall, 2005; Baumeister et al., 2002).

Many other theories that focus on motivation and/or human flourishing, have belongingness as a core feature. For example, Maslow's hierarchy of needs (1943) suggests that love and belonging come above having physiological and safety needs met, but before self-esteem and self-actualisation. Maslow recognised that a sense of belonging was important for an individual's self-esteem so that they could achieve their potential, and went further to suggest that, in our society, not having love and belongingness needs met is a reason for maladjustment and psychopathology.

Similarly, Ryan and Deci (2000) suggested that intrinsic motivation (doing a task for the satisfaction of the task itself) was more likely to flourish in the context of security and relatedness. They also suggested that extrinsically motivated behaviours are more likely to occur when they are modelled or prompted by significant others that an individual is attached to and that internalisation would occur where there was adequate support and opportunities for

relatedness, e.g., positive school behaviours were more likely when children felt cared for by their parents and teachers (Ryan et al., 1994).

2.2.1 School Belonging

Bronfenbrenner's (1979) ecological systems theory highlights the importance of relationships and the social context that surrounds a child. There are five systems proposed in this model that influence the child, from the microsystem, which includes the influence of school, friends and family, to the macrosystem, which includes culture and politics (and the chronosystem, which takes into account transitions and other events in a child's life). Bronfenbrenner suggested that each of these systems are interconnected with the others.

School belonging is considered a multi-dimensional construct, including individual and school-level factors (Allen et al., 2016; Allen et al., 2021b; Goodenow, 1993a). Goodenow (1993a) identified three factors of school belonging within the Class Belonging and Support Scale – teacher support, peer support and belonging/alienation. The more updated Psychological Sense of School Membership Scale yielded similar results, with items targeting belonging and alienation focused more on institutional affiliation rather than classroom affiliation.

Goodenow (1993a) defined school belonging as feeling 'accepted, respected and supported by others' (page 80). She found that quality of psychological membership in school was correlated with school motivation. As well as motivation, research has shown correlations between sense of school belonging and a range of other outcomes, such as health (Viner et al., 2012), mental wellbeing and happiness (Allen et al., 2024; Long et al., 2021; Marraccini et al., 2017; O'Rourke and Cooper, 2010) and academic success (Dotterer et al., 2011; Roeser et al., 1996, Sanchez et al., 2005;). Arslan et al. (2020) found that school belonging was a predictor of life satisfaction. Conversely, lack of school belonging has been associated with depression in adolescents (Parr et al., 2020). Parker et al. (2021) found that school belonging at age 15 was a significant predictor of young people who are not in education or employment (NEET) at ages 16-20. Juvonen (2006) suggests that sense of belonging is both a positive outcome and a motivator of behaviour.

2.2.2 Factors affecting school belonging

Previous research has highlighted the role of the student-teacher relationship in sense of school belonging (Allen et al., 2018, 2021a, 2021b; Slaten et al., 2015; Uslu & Gizir, 2017). High quality student relationships have been associated with lower levels of bullying (Turner et al., 2014), and students' perception that teachers effectively intervened has been positively correlated with sense of school belonging (Cunningham, 2007). Positive relationships with teachers has

also been associated with lower levels of depression in students (LaRusso et al., 2008), which has also been shown to correlate with sense of school belonging (Parr et al., 2020). As mentioned above, academic success has been associated with sense of school belonging (e.g., Dotterer et al., 2011). Foster (2008) found that students were more hopeful about their academic performance when they perceived that their teachers cared about them. Similarly, Muller (2001) found that teacher care was correlated with success in mathematics. It was also found that having a caring teacher could mitigate the effects of being at risk of drop out, which has been found to be negatively correlated with sense of school belonging (see Parker et al., 2021). Similarly, Slaten et al. (2015) found that sense of belonging created through relationships with teachers was a motivator for students to stay in school rather than drop out. Goodenow (1993b) found that students' perceptions of teacher care influenced their sense of school belonging. This relationship may be cyclical, as teachers also report their relationships with students as being important for teachers' own wellbeing (Cedillo-Berber et al., 2019).

Peer relationships have also been found to impact on young people's sense of school belonging (Allen et al., 2018; Hamm and Faircloth, 2005; Uslu and Gizir, 2017). Uslu and Gizir (2017) found, in a sample of 815 primary school children in Turkey, that peer relationships could significantly predict sense of school belonging (SoSB) for both boys and girls. In a meta-analysis, Allen et al. (2018) found that peer support was significantly related to SoSB. One of the reasons given for why peers have such a profound effect on SoSB is because of the sense of security that comes with acceptance from friends (Hamm and Faircloth, 2005). However, Freire et al. (2024) found that, although children with special educational needs (SEN) were more likely to be rejected by peers, they did not differ on SoSB compared to those without SEN, suggesting that peer relationships may not be the most important predictor of SoSB.

2.2.3 Effects of school belonging on different groups

Battistich et al (1995) found that whilst school belonging was associated with a range of student outcome measures, the strongest interaction was between school community and poverty level, with school community having a greater impact on the most disadvantaged pupils. Sense of belonging may have a different impact and/or may be more important for particular groups of adolescents. Graham and Morales-Chicas (2015) found that when students believe their identity (such as their ethnicity) is respected, they report stronger perceptions of belonging. Wilhelm et al. (2022) suggest that schools play an important part in creating welcoming environments for those from immigrant backgrounds. Kia-Keating and Ellis (2007) found that, amongst a group of Somali adolescents, belonging was associated with higher self-efficacy and lower depression regardless of past adversities.

Although there is a growing body of research on school belonging generally, as well as some that is focused on specific groups of children and young people, most of the research on school belonging involves measuring sense of school belonging quantitatively and examining the correlations between SoSB and other outcomes. Whilst there are benefits to this research, one of the limitations is that causation cannot be established, which affects the conclusions that can be drawn. Other factors could account for academic success, motivation and wellbeing other than school belonging. Another limitation is that it does not explain *why* students feel a high or low level of school belonging and what they would like their school to do to improve their sense of belonging, which could be used to inform interventions and school improvement. Qualitative methods allow for a richer, more in depth understanding of the factors that affect school belonging and what schools can do to address these.

This paper describes a qualitative synthesis using thematic synthesis (Thomas and Harden, 2008). Qualitative and mixed method papers were included with the aim of exploring the research question: what do children and young people (CYP) say helps or hinders their sense of school belonging (SoSB)?

2.3 Methodology

2.3.1 Selection and search strategy

Following scoping searches, a systematic search strategy was used based on the Preferred Reporting Items for Systematic Reviews and Meta analyses Approach (PRISMA, Page et al., 2021) (Figure 1). The final search was conducted in January 2024. Three electronic databases were searched based on relevance to psychology and education (APA PsycInfo, Web of Science and Proquest). The following search terms were included: *“school belonging” OR “school connectedness” OR “school attachment” OR “school bonding” OR “school relatedness” OR “school membership” AND “views” OR “opinions” OR “perceptions” OR “beliefs” OR “attitude*” OR “experience*” AND “child*” OR “young person” OR “adolescen*” OR “teen*” OR “youth*” OR “pupil*” OR “student*”*. Searches were restricted to title and abstract fields. Inclusions and exclusions were made, following the initial search, in PsycInfo, using the subject headings (e.g. qualitative studies, student attitudes etc.) as well as excluding books, selecting the language etc. However, Proquest and Web of Science did not have these functions.

The search strategy was developed by the researcher, with advice from the research supervision team and a member of library staff at the University of Southampton. The search yielded 1598 papers. A further 1283 were removed before screening by utilising the functions in PsycInfo mentioned above to apply the inclusion and exclusion criteria (Table 1). 291 records were

removed following screening of titles and abstracts. The full texts of 24 papers were screened for eligibility, of which 12 were excluded and 12 included in the thematic synthesis.

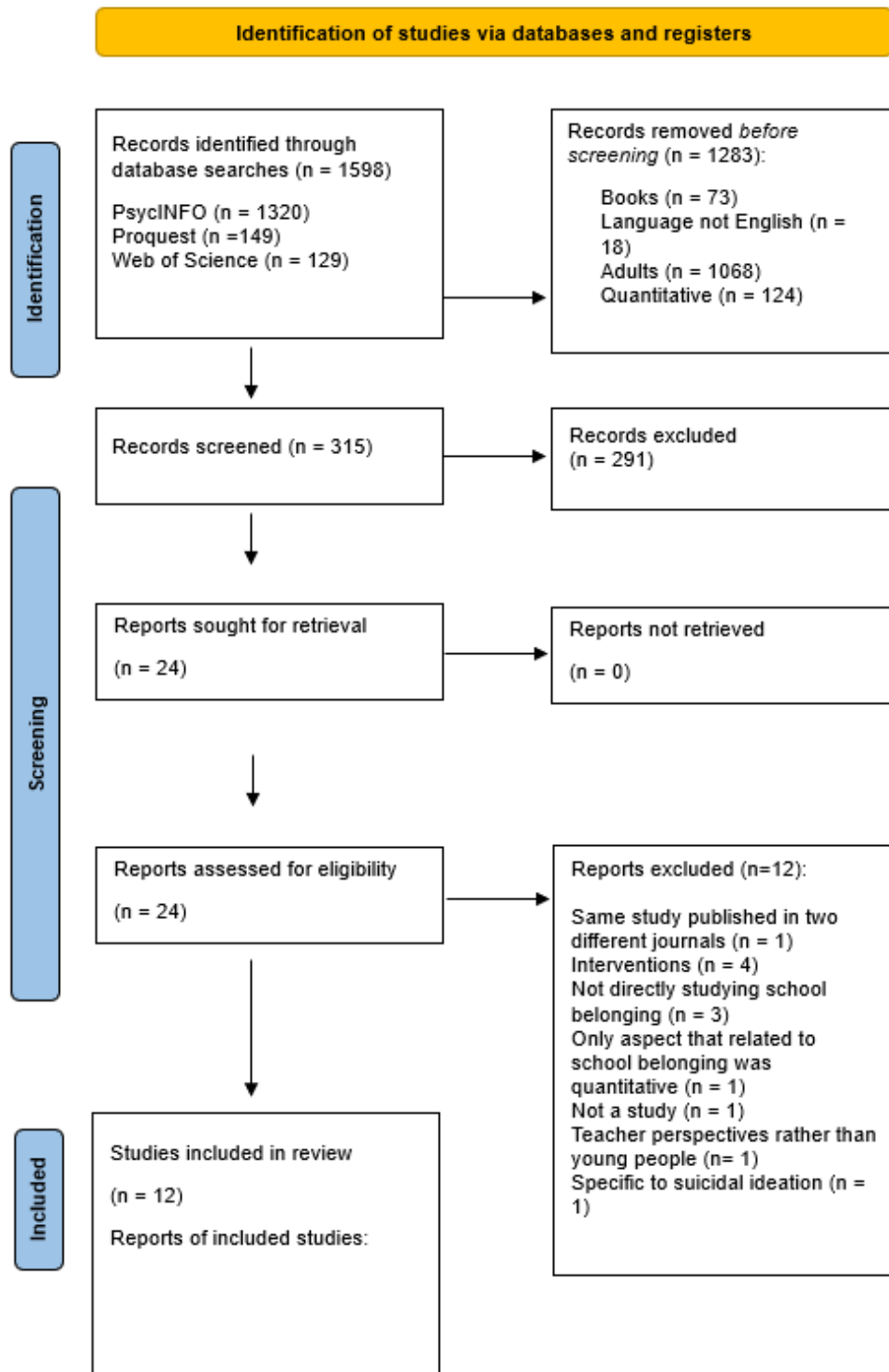


Figure 1 PRISMA flow diagram

Table 1 Inclusion and exclusion criteria

| PICOSS | Inclusion | Exclusion |
|------------|--|---|
| Population | <ul style="list-style-type: none"> Participants mean age is 19 or below | <ul style="list-style-type: none"> Participants' mean age is over 19 |

| | | |
|--------------|---|---|
| | <ul style="list-style-type: none"> • Attending or have attended school | <ul style="list-style-type: none"> • Clinical population (e.g., those who have been in hospital due to mental health needs) |
| Intervention | <ul style="list-style-type: none"> • Research that captures the views and experiences of participants' school belonging | <ul style="list-style-type: none"> • Research is based on a specific intervention relating to sense of school belonging • Research has a narrow focus related to sense of school belonging, e.g. identity or bullying |
| Comparator | n/a | n/a |
| Outcomes | <ul style="list-style-type: none"> • Participants' views and experiences of what helps or hinders sense of school belonging | <ul style="list-style-type: none"> • Research just looks at participants' definitions of sense of school belonging but not factors that affect them • Research is focused on parent or teacher views but does not include the views of young people |
| Setting | <ul style="list-style-type: none"> • An educational setting: school, college, language unit attached to school etc. • Any country as long as research is available in English | <ul style="list-style-type: none"> • Hospital • Community centre (if belonging to a place other than school is being researched) • Research is not available in English |
| Study design | <ul style="list-style-type: none"> • Mixed methods or qualitative research • Primary research | <ul style="list-style-type: none"> • Research is purely quantitative • The only element of a mixed methods paper that focuses on participants' views is quantitative • Not primary research, e.g., books. |

2.3.2 Quality appraisal

Quality appraisal was carried out by the researcher using the Critical Appraisal Skills Programme (CASP) (2018) checklist for qualitative research. The CASP checklist is considered an appropriate tool for appraising qualitative research (Long et al., 2020). However, it has been critiqued for not considering theoretical underpinnings (Long et al., 2020). Long et al. (2020)

added another question to the checklist regarding ontological and epistemological position, which has been used in a previous systematic review (O’Keefe, 2023). The adapted checklist was also used in this systematic review (Appendix A).

In line with Thomas and Harden’s (2008) approach, qualitative appraisal was not used to exclude studies from the synthesis. All papers were considered useful in answering the research question. However, higher quality papers were coded first, meaning that lower quality papers did not lead to as many new codes and that higher quality papers were more represented in the findings. However, lower quality papers added additional evidence to the codes and themes that were created, as well being used to create new codes where appropriate. Table 2 shows the results from the appraisal process.

Table 2 Results from the quality appraisal of included studies using the adapted CASP criteria

| Adapted CASP criteria | Number of studies | | | | |
|---|-----------------------|------------------|-------------------|------------|-----------------|
| | Compl etely met | Somew hat met | Partiall y met | Not met | Canno t tell |
| Was there a clear statement of the aims of the research? | 12 | 0 | 0 | 0 | 0 |
| Is a qualitative methodology appropriate? | 12 | 0 | 0 | 0 | 0 |
| Was the research design appropriate to address the aims of the research? | 12 | 0 | 0 | 0 | 0 |
| Are the study’s theoretical underpinnings (e.g. ontological and epistemological assumptions; guiding theoretical framework(s)) clear, consistent and conceptually coherent? | 5 | 0 | 6 | 1 | 0 |
| Was the recruitment strategy appropriate to the aims of the research? | 11 | 0 | 0 | 0 | 1 |

| | | | | | |
|--|----|---|---|---|---|
| Was the data collected in a way that addressed the research issue? | 12 | 0 | 0 | 0 | 0 |
| Has the relationship between researcher and participants been adequately considered? | 4 | 0 | 2 | 0 | 6 |
| Have ethical issues been taken into consideration? | 7 | 1 | 2 | 2 | 0 |
| Was the data analysis sufficiently rigorous? | 9 | 0 | 0 | 0 | 3 |
| Is there a clear statement of findings? | 12 | 0 | 0 | 0 | 0 |
| Is the research valuable? | 12 | 0 | 0 | 0 | 0 |

2.3.3 Data extraction and synthesis

Methods used for data extraction and synthesis were based on Thomas and Harden's (2008) thematic synthesis approach. Inductive coding was used to allow the researcher to be fully immersed in the data and themes generated based on the views of CYP, rather than having to fit their views and experiences into predetermined codes. An inductive approach also fits with the researcher's epistemological position of critical realism. It involves line by line coding to identify key concepts and then generating themes from patterns observed in the data. However, it must be noted that although inductive coding relies on having no preconceived ideas from the raw data, the researcher's knowledge of the literature (including previous themes found in sense of belonging research), as well as the themes that had been identified by the authors of each paper included, affected their ability to be completely inductive.

Data was extracted from the methodology section of the papers to create the study summary (table 3) and participant summary (Appendix B) tables. For the thematic synthesis, data was extracted from the results/findings sections. Both participant quotes and author comments were included for analysis. Data was copied from the papers and pasted into NVivo14. Where papers used a mixed methods approach, only the qualitative data was extracted. Thomas and Harden's (2008) three stage synthesis approach was used to analyse the data. First, each line was coded with at least one label, then descriptive themes were developed based by looking at the similarities and differences between codes. New codes were developed to represent these new groups of codes. The third and final stage involved 'going beyond' (Thomas and Harden,

2008, page 7) to develop deeper meaning from these descriptive themes, culminating in the development of analytic themes (see Appendix C for an example of this process). At this stage, the researcher considered the research question and how the themes answered this. At each stage of the process, codes, descriptive themes and analytic themes were discussed with the research team and changes made based on the reflections that were prompted by these discussions. A reflective log was kept to support the researcher to go back and forth between the whole data set and the codes to check that the codes and themes accurately represented the data set, as well as promoting consideration of the deeper meaning behind codes and themes (Appendix D).

Table 3 Study characteristics

| Study | Author and citation date | Country and setting | Recruitment method | Participants | Methodology | Data collection methods | Data analysis method |
|-------|-----------------------------|---|-----------------------|---|-------------|----------------------------|---|
| 1 | Sobitan (2022) | UK, secondary school | Purposive sampling | Adolescents with refugee backgrounds | Qualitative | Interviews | Interpretative Phenomenological Analysis |
| 2 | Barrett (2021) | US, alternative high school) provision | Purposive sampling | Adolescents attending alternative provision | Qualitative | Interviews | Thematic Analysis (Braun and Clarke, 2006) |
| 3 | Lapinsky (2019) | US, middle school | Purposive sampling | Adolescents with emotional and/or behavioural difficulties | Qualitative | Interviews | Interpretative Phenomenological Analysis |

Chapter 2

| | | | | | | | |
|---|-------------------------------|--|----------------------|--|---------------|---|--|
| 4 | Wilhelm et al. (2022) | US, middle and high schools | Purposive sampling | Somali, Hmong and Latino adolescents | Qualitative | Focus groups | Thematic analysis |
| 5 | Wallace, Ye and Chhuon (2012) | US, youth development programmes | Purposive sampling | Adolescents | Mixed methods | Focus groups | Two-cycle coding process (Saldana, 2009) paired with iterative writing of analytic memos (Strauss, 1987) |
| 6 | Shaw (2019) | UK, secondary schools | Convenience sampling | Adolescents | Mixed methods | Group interviews | Thematic analysis (Braun and Clarke, 2006) |
| 7 | Due et al. (2016) | Australia, Intensive English Language Centres (IELC) | Purposive sampling | 5-13 year olds with refugee backgrounds that had been in the country less than 12 months | Qualitative | Focus groups/interviews utilising photo elicitation | Deductive thematic analysis (Braun and Clarke, 2006) |

Chapter 2

| | | | | | | | |
|----|-------------------------------|---|---|-----------------------|---------------|--------------------------------------|--|
| 8 | Gowing and Jackson (2016) | Australia, secondary college | Convenience sampling (school volunteered) | Adolescents and staff | Mixed methods | Questionnaire, focus groups, diaries | Thematic analysis (Braun and Clarke, 2006) |
| 9 | Green et al. (2016) | US, early college (middle and high school) specialising in accelerated learning/mastery | Purposive sampling | Adolescents | Qualitative | Interviews | Coding based on theoretical framework |
| 10 | El Zaatari and Ibrahim (2021) | United Arab Emirates, secondary public schools | Purposive sampling | Adolescents, teachers | Mixed methods | Interviews | Thematic analysis |
| 11 | Saravi et al. (2020) | Mexico, two public high schools | Purposive sampling | Adolescents, teachers | Qualitative | Interviews, focus groups | Thematic analysis |

Chapter 2

| | | | | | | | |
|----|------------------------|-------------------------------------|-----------------------|-----------------------------------|-------------|------------|--|
| 12 | Myles et al. (2019) | UK, middle and secondary schools | Purposive sampling | Female adolescents with autism | Qualitative | Interviews | Thematic analysis (Braun & Clarke, 2006; Clarke & Braun, 2013) |
|----|------------------------|-------------------------------------|-----------------------|-----------------------------------|-------------|------------|--|

2.4 Findings

CYP's views on what helps or hinders school belonging were collected using focus groups, interviews, open ended questions in questionnaires and through student diaries. Research took place in a number of different countries and included a range of different populations, including refugees, children receiving support for special educational needs (SEN) and students that graduated from an alternative provision. The majority of participants were between 11 and 16, with a small number of primary aged participants and a small number of participants over 18 (with a mean age of 19). In most studies there was a balance of males and females, although one study focused on the views of autistic girls (Myles et al., 2019) so males were not included.

550 codes were originally generated across the 12 papers, with duplications deleted and similar codes grouped together. From this grouping process, 36 descriptive themes were generated, from which four analytical themes and eight subthemes were created to answer the research question of what helps or hinders sense of school belonging (Appendix E). A further analytical theme was generated to capture participants' and authors' thoughts about the changing nature of belonging, although this did not directly address the research question. Additional codes that did not relate directly to the research question were grouped together under the heading 'what is belonging' but were not used to generate analytical themes.

The analytical themes generated were:

- Being accepted for who you are (with subthemes of Discrimination and Being yourself versus fitting in),
- Wanting to learn but not always feeling able to (with subthemes of The way the curriculum is designed hinders learning and Needing support with learning),
- Feeling cared for (or not) (with subthemes of Relationships with teachers and Peer relationships) and
- How you connect (or don't) to school (with subheadings of Feeling like you could participate and Having a say over the systems and policies that affect you).
- The last theme that did not directly answer the research question was Belonging changes over time and space.

In the quotes below, the number of the paper is based on quality appraisal (see Appendix B for corresponding study).

2.4.1 Theme one: Being accepted for who you are

The importance of being accepted was mentioned in nine of the papers. This theme included having respect for an individual's identity, which included their culture, religion, background, disability or their sexual orientation

'... even though they don't like my religion, they still respect my opinion, and they asked me about the God of Muslims and stuff' (participant comment, paper 1).

When an individual's culture or religion was not understood or valued, this hindered their sense of belonging. This could be students making comments about what they were wearing or making fun of their religion. Unfortunately, sometimes they felt alienated and a sense of unbelonging because of their teacher's lack of understanding about their culture or religion or feeling that they did not do enough to support them when they were teased by peers.

'Some teachers, they just laugh and sit there' (participant comment, paper 4)

Having their culture and religion recognised and valued was an important aspect of belonging for young people but it was important for them to be seen as individuals and not just as part of a particular group, as illustrated by this comment.

'SLH [Somali, Latino and Hmong] students gravitated toward teachers who they felt attempted to get to know them as individuals with unique backgrounds and interests rather than as token members of their ethnic groups' (author comment, paper 4).

The importance of having an individual identity and being recognised as unique by both students and teachers was something that was mentioned across papers.

One of the ways that participants felt that this acceptance could be demonstrated was through an inclusive environment where everyone had the chance to participate.

'Of course, even if someone has a disability, the person should still give other people with disabilities a chance' (author summary of participant interview, paper 3).

Participants commented on the impact of not being accepted by peers, including being ignored.

'If I was in the conversation at all I was always like... we always talked about what they wanted to talk about... sometimes I was not listened to at all...' (participant comment, paper 12).

One way that participants felt that they were not accepted for who they were was when they were unfairly labelled based on past behaviour.

‘Teachers aren’t fair because there are teacher’s pets and there are some students who cause problems. But even then sometimes the students who cause problems are just trying to do the right thing to turn around their act. But the teachers don’t realize that and other things like that you know’ (participant comment, paper 3).

This lack of acceptance and/or understanding was also related to the theme of feeling cared for, particularly by teachers, which is discussed later. Some participants commented on what it was that others did, which created a feeling of acceptance in school. For some, it was being listened to and made to feel welcome. Many participants mentioned not being judged, which helped them feel that they belonged.

‘The teachers are really understanding . . . they are really open, as I said earlier, and welcome. So I feel like I could be myself here and not like be judged or anything like that.’ (participant comment, paper 9).

Participants in one study (paper 2) commented that feeling accepted then gave them opportunities to participate in their school community, leading to a greater sense of school belonging. Participants commented that to improve belonging, the contributions of every student should be valued, rather than particular students who looked or behaved a certain way.

‘Participants were clear that to encourage belonging within schools, increased understanding and appreciation of diversity were necessary’ (author comment, paper 3).

Some participants also felt that it was the duty of the individual to be accepting of others in order to belong, not just expecting others to be accepting of them.

‘Just get to know the people who reach out to you, even if you think, oh, they aren’t popular. Why would I have to get to know them?’ (participant comment, paper 3).

2.4.1.1 Sub theme one: discrimination

Some young people referred to themselves or others not being accepted due to an aspect of their identity and spoke about being unfairly treated because of this. This led to them feeling marginalised or isolated, which hindered their sense of belonging. Participants explained that they were excluded or harassed for their sexual orientation or their ethnicity.

‘the experience of being abused based on having a different accent and skin colour exacerbated the feelings of ‘othering’’ (author comment, paper 1).

The discrimination of these students was, unfortunately, not just due to lack of acceptance from

peers, but also included negative teacher perceptions based on stereotyping.

‘Once I was on a field trip and we were with some teachers and we bought some necklaces, like most of my friends, they walked out and then the teacher asked if I stole it. And I felt like why are you asking that, because of my ethnicity or something? And I said, “No, I was not stealing”’(participant comment, paper 5).

As mentioned earlier in the theme of being accepted for who you are, participants felt that they were not always seen as individuals, but labelled as belonging to a particular group, in this case based on ethnicity.

2.4.1.2 Sub theme two: being yourself versus fitting in

Lots of participants talked about the importance of being themselves and talked about changing an aspect of yourself in order to fit in as ‘pretend belonging’ rather than authentic belonging. Being themselves was about self-acceptance and being comfortable with who they were, rather than trying to fit a particular mould. For these participants, they believed that being their authentic selves would be or should be enough to be accepted and liked by peers.

‘People like you for who you are, not for how you dress and stuff like that’ (participant comment, paper 3).

However, some participants disagreed and felt that it was important to try to fit in and be like everyone else. For them, changing their clothes or behaving in a particular way was necessary to achieve a sense of belonging.

‘If you don’t dress right, people don’t like you’ (participant comment, paper 3)

For some participants, they felt that they couldn’t belong to school because they did not fit the mould, whilst some students naturally fit in because they were in the majority.

‘That’s really it, you’ve got to be straight and white’ (participant comment, paper 3).

Whilst this was seen as a negative by some students, others saw belonging as being ‘average’ (page 109, paper 3) and did not want to be the same as anyone else. Therefore, for them unbelonging was a positive thing.

Some participants talked about taking responsibility for belonging by making the effort to fit in rather than just expecting others to include them. If they were comfortable with themselves, they’d make the effort to talk to more people, which would lead to greater belonging.

‘This year you have talked with more people and were more open to meeting new people. This has helped you make more friends who you can trust and now you feel a greater sense of belonging’ (author comment, paper 3).

Some participants talked about changing their behaviour in order to fit in with others. This was especially true of the young people interviewed in paper 12, who felt that they had to conform to the female stereotype in order to be accepted.

‘I do whatever they’re doing....yeah it helps because then it’s doing the sort of thing that they like. Then you’ll know that they’ll like what you’re doing’ (participant comment, paper 12).

The comments above suggest that young people felt that they had to hide their true selves in order to be accepted by their peers. This was also the case for young people with emotional and behavioural difficulties, as illustrated in the quote below.

‘They might be able to have friends and look like they are members. They might, however, be faking it a bit if they have to deny the aspects of themselves related to disability (author summary of participant interview, paper 3).

2.4.2 Theme two: wanting to learn but not always feeling able to

The importance of learning was mentioned in nine of the papers. Participants talked about wanting to learn but struggles with learning and falling behind peers impacted their sense of school belonging. For some, high academic expectations were important and helped them to engage with school.

‘There were students, however, whose sense of belonging seemed grounded in the strong academic environment and opportunities provided by the school’ (author comment, paper 9).

As learning was the primary reason for young people to be at school, many felt that it was important for them to work hard at their studies and have a good attitude to learning. However, this meant that when there were difficulties with learning, it knocked their confidence and made it difficult for some students to attend, even affecting their hopes for the future.

‘I got to the point where I did not even want to think about getting a job or going to college because I genuinely did not see them as possibilities in my life’ (participant comment, paper 2).

Struggles with learning affected engagement in classes, as well as the relationships between students and staff, because young people were not motivated to work as hard in the subjects that they were finding more challenging, and this affected the way that they interacted with the teachers.

‘I feel like there are some kids who if they do not understand the topic they are not as respectful to the adults’ (participant comment, paper 3).

In one paper, the author made the distinction between academic belonging and social belonging. They suggested that difficulties with learning affected self-efficacy, which impacted on academic belonging. This paper focused on the views of students who were attending at STEM (Science, Technology, Engineering and Mathematics) school where academic expectations were high. This was beneficial for some students and their sense of belonging. However, for others that found the learning more challenging, it was not as positive an experience.

‘The mastery program . . . makes the students who don’t have their grades in mastery feel like complete idiots, but still [laughs] I guess that, I guess they kind of deserve that. And by “they” I mean “me”’ (participant comment, paper 9).

Whilst, for some students, how they did academically was not considered important, for others, not being able to meet the academic demands in school affected their sense of school belonging.

2.4.2.1 Sub theme one: the way the curriculum is designed hinders belonging

Even when they could meet the academic demands, some students found the rigidity of the curriculum, the focus on testing, as well as the amount of homework they were having to complete, put them off school. Participants discussed that their interests were not taken into account and that some teachers prioritised completing the curriculum over their learning needs as well as their wellbeing. Some participants could not see the relevance of what they were being asked to do for getting a job and many wanted more opportunities to use practical skills.

‘I like to learn hands on more, and that would like help me a lot in school’ (participant comment, paper 3).

Some young people commented that the way that the curriculum was designed actually hindered their sense of belonging. When teachers did not make the effort to make the subject matter engaging, did not take into account their interests or learning styles, it hindered their sense of belonging. However, when there was a subject that they were passionate about and wanted to study, they wanted to belong there.

‘Participants discussed academic classrooms (math, English, science, history, etc.) as being more traditional in terms of what they taught and how they taught it, and this led most participants to feel less belonging within academic classrooms because it was misaligned with the way they liked to learn’ (author comment, paper 3).

2.4.2.2 Sub theme two: needing support with learning

Support with learning, provided by adults, was seen as very important to young people, especially to the young people in paper two, who had gone to an alternative provision (AP) after being excluded from mainstream. Having this support from adults was not only helpful for the students’ self-efficacy, it also signalled that the teachers cared about them, which they did not feel about their previous school.

‘I had an advisor, a really good advisor...and she was really good to me...And obviously, she talked to me. She’s like, “Oh, you’re a little behind. Your GPA is really low. We can get to work. We can get it to work...”’ (participant comment, paper 2).

Making sure students had understood the learning before moving on was seen as important for many students. They discussed the importance of teachers ensuring that students had understood and were confident in an aspect of learning rather than rushing on too quickly to cover the required content. Teachers at the AP in paper two were often credited with giving the academic support, as well as the encouragement with learning that young people felt had been missing at their previous mainstream school. This was also related to the relationships that students had with their teachers which is discussed in the next theme.

‘And to see the pride that she had in actually teaching her students, making sure they’re grasping what’s going on...’ (participant comment, paper 2)

Although there was some overlap with feeling cared for, support with learning included teachers understanding their difficulties, as well as their particular learning style. This involved teachers understanding them as individuals and responding to their needs accordingly. These adaptations to suit individual learning needs were considered important for developing sense of

belonging.

‘That’s a really important thing. Just like not all teachers are like that, though. That can make you feel really alienated. Like I’m not like these other kids. I don’t learn like these other kids’ (participant comment, paper 3).

The author in p3 commented that struggling with learning had a direct impact on belonging because it may cause students to be ‘called out’ by others. Standing out in this way meant that they felt they did not belong to the class.

Many students commented that they would like more support with learning but that it was not always available to them, which hindered their sense of belonging.

‘...she felt that students would be visibly struggling and there would be no acknowledgement or response from staff...’ (author comment, paper 2).

In addition, sometimes they felt that, not only were they denied this support, but that teachers were not interested in helping them and had low expectations of their abilities.

‘they’re more like ‘you don’t need to worry, you’re going to fail’ (participant comment, paper 4).

2.4.3 Theme three: feeling cared for (or not)

The importance of feeling cared for was mentioned in 11 of the 12 papers. Whilst relationships with other adults in the school were mentioned a few times by participants, the key relationships were between them and their teachers, as well as with peers.

‘Students reported that they feel as though they belong at STEM School because of the open social environment, characterised by close relationships with peers and teachers’ (author comment, paper 9)

2.4.3.1 Sub theme one: relationships with teachers

There was some overlap between this subtheme and needing support with learning, as mentioned above, as teachers were also seen as responsible for supporting students with their learning and, perceiving that this support had not been given, this affected their relationship, as illustrated in the following comment.

Chapter 2

‘Teachers who the students felt did not prioritize time to help them struck many students as caring less about them personally, which undermined student motivation to learn from these teachers’ (author comment, paper 4).

The importance of having teachers who care was mentioned by many of the young people across eight of the papers. Some of the participants interviewed in paper two expressed disappointment that teachers at their previous mainstream school had seemed not to care that they were not attending school and hadn’t checked on them or found out why. This perceived lack of care was contrasted with the care that they felt they received at their new schools.

‘the participants make it clear that the care that was offered by the staff at their alternative schools was overt, committed and demonstrable’ (author comment, paper 2).

Sometimes young people felt that teachers did not see them as individuals and were not concerned with how they felt. They simply did their job, which was to teach, and expected the students to do what they were told. It left them feeling invisible, which affected their sense of belonging.

‘They do not care about what we are suffering from, like stress. They want us to obey their orders without any negotiation’ (participant comment, paper 10).

Having a poor relationship with their teacher affected their sense of belonging, which then affected their ability to engage in lessons.

‘when you have a bad teacher, it is hard to belong in their class. When this is the case, you don’t feel engaged with the work and you don’t want to be there’ (part of author summary of interview, paper 3).

Young people talked about the importance of teachers taking the time to engage with them and get to know them. They talked about the importance of how they talked to them, such as using an appropriate tone and treating them with respect. When students felt that they mattered, this helped with their sense of belonging.

‘Teachers who actually listen and provide students with options help the most with belonging’ (author comment, paper 3).

When it seemed that teachers were on their side and believed in them, that helped them believe in themselves, engage with the learning, and make progress academically.

‘you can learn this...you can do this, like I’m smart enough...and the only thing holding me back is myself’ (participant comment, paper 2).

Some young people felt that they were not understood by teachers and this led to alienation and a negative perception, which hindered their sense of belonging.

‘Ella reported that she felt some teachers disliked her because of their perception that she does not listen. For Ella, this seemed to demonstrate the teachers’ misunderstanding of her needs’ (author comment, paper 12).

Some also mentioned being treated unfairly by teachers. They expressed that it was difficult to connect with teachers who they felt had negatively stereotyped them, again overlapping with the theme of being accepted for who you are.

‘One of the key ways in which participants talked about improving belonging was through having teachers be fairer’ (author comment, paper 3).

Many young people mentioned that having teachers check on them or being able to go to key adults that they had a good relationship with, helped their sense of belonging.

‘Pupils discussed particular areas in school where they feel safe and are able to check in with staff or peers’ (author comment, paper 12).

2.4.3.2 Sub theme two: relationships with peers

Relationships with peers, both in terms of particular friendships and getting along with students more generally, were mentioned by many of the young people and featured in all of the papers. This subtheme also overlapped with the earlier theme of being accepted, as friends were also viewed as making them feel accepted, whilst not being included by peers hindered their sense of belonging.

‘true friends... they actually understand and just don’t not like me for my autism’ (participant comment paper 12).

As well as the importance of having friends, participants talked about the importance of feeling like they belonged to certain groups, such as teams.

‘You’re committed to that team. You already are part of that team. Every person on the team’s a big part of the team’ (participant comment, paper 3).

Chapter 2

Not all young people felt that you had to belong to a particular group to belong; some felt that it could be helpful to move between groups. However, this was dependent on knowing lots of other students. For this reason, some participants suggested that being at a large school was helpful for increasing sense of belonging as it afforded the opportunity to meet and get to know lots of people.

‘I think that you can belong without a group. Like I think that some people they can just jump around. They can do their own thing and be happy. They can have multiple friends’ (participant comment, paper 3).

When it came to friendships, some students felt that it was important to have a shared background. Paper seven sought views of children from refugee backgrounds and many students commented that they made friendships with children they could identify with, such as those who spoke the same language or had the same culture. This was also mentioned by pupils with refugee backgrounds in paper one. Young people mentioned that they could talk to people who had a similar background to them because they were more likely to understand them and having people around who were similar to them helped their sense of belonging and, in some cases, made them feel safe.

‘10 of the 15 students indicated that they sought friendships with children from similar cultural, ethnic or linguistic backgrounds to themselves, and that these relationships increased their sense of school belonging’ (author comment, paper 7).

Sometimes there was segregation in the community and that same segregation was reflected in the school, with students grouping themselves according to racial similarities rather than groups being diverse. Diversity had been mentioned by some pupils as helping belonging (see theme one), and one student commented that students coming together from different backgrounds created a sense of belonging because, although they were different, they all shared a minority status.

‘we were all coming from different places, but we all had a sense of belonging there together’ (participant comment, paper 2).

Having shared values, a similar mindset and common interests were all things that young people reported as being important for the development of friendships.

‘I think in this school specifically, there's a lot of artsy kids and people that are interested in the same things that I am’ (participant comment, paper 3).

In some cases, conflict with peers was a reason that young people felt they did not belong, such as having rumours spread about them, being treated unfairly or getting into conflicts. Bullying was reported to affect enjoyment of school, as well as feelings of safety.

‘Bullying can make it harder for people to belong, much harder for people to belong’
(participant comment, paper 3).

Although some young people suggested that teachers did not have any effect on peer relationships and could not support the development of friendships, they were considered important in putting a stop to bullying. In addition, sometimes, the school or teachers were held responsible for impacting on peer relationships at a practical level due to timetabling or groupings within their classes making it difficult for peers to interact with each other.

‘...participants talked about having their good friends in different groups and not being able to talk with them during the school day due to the schedule’ (author comment, paper 2).

2.4.4 Theme four: how you connect (or don’t) to school

Some young people felt that they belonged to the school just because they attended, even though this attendance was compulsory. However, participants did not comment on whether this represented a weaker connection to school than might have been felt had they experienced more proactive efforts to engage them.

‘Year 10 pupils raised the point that they were part of the school not through choice but because they had to be there’ (author comment, paper 6).

However, for others, participation or their lack of it, as well as the rules and policies of the school, contributed to their feelings of belonging or unbelonging.

2.4.4.1 Sub theme one: feeling like you could participate

There was a cyclical relationship between participation in school life and sense of school belonging. Participation in school life was one way that young people felt they belonged and they were also more motivated to participate in school life when they felt a sense of belonging.

Trips were one way of fostering a sense of belonging and seemed to be particularly important for those children from refugee backgrounds. Another way that young people felt that they

participated was through attending clubs that were offered by the school, which helped their sense of school belonging because they felt more included. Sometimes, attending a club would lead to representing the school at an event, which made young people feel a greater sense of belonging to their school.

‘I feel like I am representing my school and I am trying to do all of my best to win’
(participant comment, paper 10).

This comment shows that it was not just what the school could offer students that created a sense of belonging. It was important to young people that they could give something back to the school, too.

However, one author commented that for a group of children with refugee status, they were not yet participating in any extra-curricular activities, which may have affected their sense of school belonging.

‘This could be indicative of their newly arrived status (in that they had not had the opportunity to engage with activities out of school as yet), but it could also indicate an issue for this group of students in relation to school belonging’ (author comment, paper 7).

One benefit of being part of a club was the ability to make connections with peers, representing an overlap between this subtheme and the subtheme of relationships with peers.

‘participants felt their participation in these activities did help with their belonging, but participants did not think the impact was significant. Often the main advantage was that it allowed them to meet more people’ (author comment, paper 3).

Another way that students discussed being able to participate in school is by having their views taken into account and having greater say over their learning.

‘if a change in belonging was going to happen teachers and administrators needed to start listening to students and giving students the autonomy to enact solutions’ (author comment, paper 3).

2.4.4.2 Sub theme two: having a say over the systems and policies that affect you

Policies, which included rules, were related to belonging in that young people felt a lack of

Chapter 2

agency over the policies that were adopted at school as their views sometimes weren't sought. One young person talked about a rule that no one should sit in the cafeteria alone. However, having someone sit with a peer because they had to, rather than choosing to, just added to that individual's isolation.

'It's just so awkward. You know this kid doesn't want to be talking to you, but they have to' (participant comment, paper 3).

This example illustrates a school that was trying to increase the belonging that young people felt. Unfortunately, their good intentions had the opposite effect.

Policies that young people perceived as inflexible also affected their sense of school belonging. For example, being given a detention due to lateness and having to sit in isolation hindered this young person's sense of belonging. The reason behind the lateness had not been sought from the young person, or their views on it, but the policy had been generally applied.

'And I was like, if that's going to happen every time I'm late to school, I'm not going' (participant comment, paper 2).

Some rules were seen as unfair and too harsh. Participants talked about detentions and having to stand at the back of the classroom. In one school, the uniform policy was considered too strict and actually unsafe, as girls had to wear skirts (paper 11), yet the young person did not feel they could do anything about it.

When the values of the school, which were reflected in the policies, did not align with personal values and these values weren't taken into account, this caused conflict for the students and hindered their sense of belonging. This conflict is illustrated in the quote below.

'...speaking English was seen as an important element of the school's identity, and that not wishing to speak English was likely to lead to a dislike of school in Australia' (author comment, paper 7).

On the other hand, some school policies promoted school belonging and showed that a young person's needs and views were valued. In the AP that was discussed in paper 2, students were given advisors to provide them with 1:1 support. This '*...provided an overarching institutional structure that allowed them a relational connection*' (author comment, paper 2). In other words, the policy of the school to provide these advisors, who developed a relationship with the young people (a previous theme identified as being important for belonging), helped them feel cared for and promoted a sense of school belonging.

2.4.5 Theme five: belonging changes over time and space

There were some codes that did not fit into the themes mentioned above. Some were related to definitions of belonging, which were not directly relevant to the question being investigated. However, there was one theme that was generated that was related to all of the themes mentioned and was related to the idea that belonging is not static and not all encompassing – belonging could change over time, could be different in different spaces and could relate to groups within the school rather than a young person having an overall sense of school belonging. This suggested that there was hope for young people who had not felt a sense of belonging in school up to now.

For children who had recently arrived in Australia, they took photographs of the places they felt a sense of belonging to.

‘such spaces and activities frequently revolved around activities that did not rely on knowledge of English, such as art and sport’ (author comment, paper 7).

Some students found it difficult to feel an overall sense of school belonging, even though they were relatively happy with their friends and teachers.

‘like I don’t feel part of it even though when I’m inside I feel safe with my friends. I have a laugh, I have time with teachers...’ (participant comment, paper 6).

Some middle school students did not feel a sense of school belonging at that time but thought that this may change at high school, when their peers had matured.

In some cases, young people felt that simply having time in school increased their sense of belonging, with some students reporting a greater sense of belonging in year eight compared with year seven (paper 6).

Finally, if students did not feel a sense of belonging to their school, that did not mean that they would not find it in the future. School represented a relatively short time in their lives where their choices were limited and decisions predominantly made for them. In work, they may find more autonomy, as well as other people that they had more in common with.

‘After they completed school, they could choose where they wanted to belong and they were confident they would be able to find people they belonged with’ (author comment, paper 3).

2.5 Discussion

2.5.1 Summary of findings

This paper used a thematic synthesis approach (Thomas and Harden, 2008) to explore young people's views of what helps or hinders their sense of belonging. Four themes were generated: being accepted for who you are, wanting to learn but not always feeling able to, feeling cared for (or not) and how you connect (or don't) to school.

It was found that young people feeling like they were accepted for who they were was important for SoSB. This included having their background, culture, religion and disabilities recognised, but not being discriminated against because of this. It also involved being recognised as an individual, which meant others taking the time to get to know them, rather than stereotyping them. Being accepted also involved being listened to and included and not having to change yourself to fit in with a particular ideal (although some felt that this was necessary, even if it was 'pretend belonging'). Whilst most participants talked about being accepted as something others should do for them, some talked about taking individual responsibility for being accepted by making the effort to get to know peers and being open-minded. The importance of being accepted has been found in other research on sense of belonging (e.g., Alink et al., 2023; Baumeister & Leary, 1995; Goodenow, 1993a)

This relates to the theme of self-presentational strategies identified by Wallace et al. (2012), who found that participants talked about the importance of being known as an individual, and the judgements made about them and the efforts they made to fit in with peers and present a particular persona. Similarly, Myles et al. (2019) found that inclusion was an important part of belonging and Wilhelm et al. (2022) found teacher acknowledgement of students' unique identities to be an important factor in belonging. Saravi et al. (2020) discovered that stigmatisation was a factor affecting belonging and Barrett (2021) found that anonymity and isolation affected participants' SoSB.

The second theme of wanting to learn but not always being able to included participants' low self-efficacy in relation to learning, which sometimes caused them to disengage with learning and affected (and was affected by) the relationships they had with their teachers. Participants frequently talked about support with their learning being important for their belonging and feeling alienated when they fell behind or the support was not given. Learning was seen as an important factor for belonging because school is primarily a place for learning and not keeping up with academic demands led to the feeling that they did not fit in. The rigidity of the curriculum (as well as some teachers) was also mentioned and participants expressed a wish to have their

learning styles taken into account, as well as learning skills that were relevant to their interests and future careers, and also for teachers to make the effort to make learning fun and engaging. Learning has been found to be a factor of belonging in other studies. Anderman (2003) found that students reported a higher sense of belonging when academic tasks were perceived as interesting and useful. Similarly, Stevens et al. (2007) found that sense of belonging was increased when teachers prioritised learning over how well students performed on tests.

Within the papers included in this study, Gowing and Jackson (2016) found that learning was an important factor of belonging, whilst the importance of teacher instructional approaches was found by Wilhelm et al. (2022). Falling behind was a theme identified by Barrett (2021) as hindering belonging. Green et al. (2016) also found a distinction between academic belonging and social belonging.

Theme three was about feeling cared for and included relationships with teachers as well as peer relationships. Peer relationships were mentioned in all of the papers included in the review and were arguably seen as more important by participants than relationships with teachers. There was overlap between this theme and other themes of being accepted and wanting to learn as participants wanted to be accepted by teachers and peers, and support with learning given by teachers was often seen by participants as an indication that teachers cared about them. Positive relationships with teachers and peers involved not being judged, being listened to and having opportunities to make connections with others, such as through clubs and teams. Teachers were sometimes seen as being able to support students with their relationships with peers, such as by ensuring there was not bullying and that they thought about timetabling and groupings to facilitate peers spending time together. Teacher-student relationships have been cited by many researchers as essential for SoSB (Allen et al., 2018, 2021a, 2021b; Slaten et al., 2015) and were mentioned in all but one (Myles et al., 2019) of the papers included in this study. Similarly, peer relationships have been found as a factor for SoSB in a number of studies (Allen et al., 2018; Hamm & Faircloth, 2005;) and were found in every paper included in this study.

The fourth theme of how you connect (or don't) to school showed that young people enjoyed opportunities to participate in school, both in regards to extra-curricular activities and to have their voices heard in relation to their learning and the policies that affected them. Similar to the theme of wanting to learn, participants wanted more autonomy over their learning as well as fairer policies that had more flexibility and took into account their individuality. Previous research has highlighted the importance of extracurricular activities for promoting sense of school belonging (O'Donnell et al., 2023). They found that participation in extra-curricular activities predicted SoSB two years later. However, Allen et al. (2018) found that extra-curricular activities specifically did not predict SoSB.

Having a say over the rules and policies that affect young people, have also been shown in the literature as affecting SoSB. This theme of connecting to school was also similar to themes found in Barrett (2021), Due et al. (2016), El Zaatari et al. (2021), Gowing and Jackson (2016), Saravi et al. (2020), Sobitan (2022) and Wallace et al. (2012).

Allen et al. (2016) suggested that Bronfenbrenner's (1979) ecological framework could be used to explain school belonging, with the different levels applicable to the different facets of school. The findings presented in this discussion fit this model, with some aspects of belonging relating to the individual (such as academic self-efficacy), relationships at the group or classroom level, whilst the environment and the whole school also help or hinder belonging, such as being able to have a say over policies and accessing extra-curricular activities.

In summary, these findings suggest that being accepted, having positive relationships with peers and teachers, having support with learning, feeling part of the school community and having a say over the policies that affect young people help them feel a sense of belonging. However, feeling excluded, a lack of positive relationships, inadequate support with learning and feeling that their views aren't taken into account hinder CYP's sense of belonging to school.

2.5.2 Strengths and limitations of the review

One of the strengths of the included studies is the quality of the papers. 10 out of the 12 papers scored 8 or more on the adapted CASP checklist (Long et al., 2020). The aims of all papers were clear, qualitative methods were appropriate in all cases and all studies made a valuable contribution to the literature on SoSB. In addition, two of the studies were carried out in non-western countries and three of the papers focused on immigrant or refugee populations, expanding the literature beyond white, western populations. Also, one of studies sought the views of young people who were attending an alternative provision, one was based on the experiences of children with emotional and behavioural difficulties, and another focused on sense of belonging experienced by females with autism. This review thus incorporates the experiences of a diverse range of young people, which adds to the breadth of SoSB research.

One of the limitations of this review is that two of the included papers are theses and, therefore, have not been peer reviewed. However, these were found to be of high quality when quality appraised using the adapted CASP checklist (Long et al., 2020). A limitation highlighted by the checklist is that many of the researchers had not explicitly stated their ontological or epistemological position, which is the item that was added by Long et al. (2020). Although this may have been an oversight, not having a strong ontological or epistemological position could be viewed as a limitation as this gives context to the findings and affects how meaning is interpreted.

In addition, many researchers had not considered the effect that they had on the participants, for example the power dynamic, and ethical issues were not always discussed beyond mention of receiving ethical approval.

One of the strengths of the review process was the search strategy, which was developed in collaboration with the research team as well as through guidance from a member of library staff. Along with clear inclusion/exclusion criteria, this meant that the final papers directly answered the research question. However, Google Scholar and reference harvesting were not utilised, meaning that some papers that could have added to the review may have been missed.

Another strength of the review process is that codes and themes were discussed with the research team and that deeper meaning was sought for analytic codes (in line with Braun and Clarke's 2022 reflexive thematic analysis approach).

Although it is recognised in critical realism that the researcher brings their own experiences and interpretations to qualitative research, the fact that I am a neurotypical, female with experience grounded largely in western culture, could be seen as a limitation. My interpretations are likely to have been different from those of someone from a different culture or with particular experience of some of the issues raised by the participants. However, reflexive thematic analysis embraces researcher subjectivity as a resource and emphasises the importance of being aware of this in order to be reflexive, rather than striving for consensus between researchers or a notion of accurate coding as meaning is not fixed in data (Braun & Clarke, 2023).

2.5.3 Implications for educational psychologists

There are many implications of this research for educational psychologists, as well as school leaders and teachers. Firstly, it confirms the importance of engaging children and young people in tasks that are relevant and interest them, as well as the importance of them having some autonomy over how they learn material in order to develop a sense of belonging. Presenting learning opportunities that are related to students' interests is also recommended by Allen (2016) as part of the socio-ecological framework. Personalising learning is another implication to address the difficulties that some young people expressed regarding learning and the impact that academic demands had on sense of belonging. This has also been shown in the literature to support a sense of belonging (Allen et al., 2016).

Another implication is that it highlights the importance of relationships with teachers so that young people feel like their teachers care, in order to increase their SoSB. Some participants gave concrete examples of how teachers could demonstrate this care: through checking in with

them, noticing when they were absent and following up, and showing care through taking the time to explain the taught material so that students actually learned it and could recognise their progress. Emphasising student progress and encouraging students to recognise their next steps is something that teachers could implement and is also suggested by Allen et al. (2016). Whilst educational psychologists emphasise the importance of a relational approach for supporting children with emotional and behavioural difficulties which involves building positive relationships as well as having a compassionate, trauma-informed approach (Bomber, 2020), this emphasises the connection between support for learning and feeling cared for that leads young people to feel a greater sense of belonging. As previous research has shown that the teacher-student relationship can mitigate against risk of drop out, and the rising number of young people who are absent from education (21.2% persistent absentees in 2022/2023 compared to 10.9% in 2018/2019, HM Government 2024), this finding could support work on emotionally based school avoidance (EBSA).

In addition, this research highlights the importance of peer relationships, the relationship mentioned in all papers, which teachers can impact, through consideration of the timetable and class groupings to facilitate peer interactions, encouraging involvement in clubs and teams. In terms of connecting to the wider school, it emphasises the importance of pupil voice and some flexibility around policies and rules, taking into account individual needs, Allen et al. (2016) suggests that pupils, along with parents and school staff, should be encouraged to contribute to school policies. This research also emphasises the importance of giving young people opportunities to participate in extra-curricular activities such as clubs at lunchtimes and after school, which has been shown to help school belonging (Allen et al. 2016).

2.5.4 Suggestions for future research

This research sought the views of children and young people on the factors that helped or hindered their sense of belonging. Although one of the studies included participants from five to 13, the other studies were with adolescents. More research is needed to seek the views of primary school children as the results could lead to earlier intervention to avoid difficulties with belonging in adolescence. In addition, although the papers included sought the views of different groups of students, more research is needed with underrepresented groups, as well as with young people more generally to discover common themes and allow for greater transferability of findings.

2.5.5 Conclusions

Findings from twelve qualitative studies were synthesised, resulting in the generation of four themes identifying factors that helped or hindered sense of school belonging for children and adolescents. These included being accepted for who they are, wanting to learn but not always feeling able to, feeling cared for and how you connect (or don't) to school. These findings may be useful to those working in educational settings, although they must be interpreted cautiously in the light of limitations to the included studies, as well as the review process. More research is needed, particularly with younger children, as there is currently a scarcity of research that seeks their views.

Chapter 3 How does teacher involvement in a gratitude diary impact on feelings of gratitude and belonging?

3.1 Abstract

The literature regarding the effectiveness of gratitude diary interventions with children is mixed, with some studies finding that recording what they are grateful for leads to increases in gratitude and sense of school belonging (SoSB), compared to recording neutral events, and others reporting no differences. This study aimed to find out whether having teachers completing a gratitude diary alongside their class would impact on children's gratitude and SoSB. Children in a large junior school in the south of England were randomly assigned by class to one of four conditions: gratitude diary with teacher involvement, gratitude diary without teacher involvement, events diary with teacher involvement and events diary without teacher involvement. Measures of gratitude and SoSB were taken at baseline, end of intervention and at follow up and an ANOVA was used to analyse the results. Although there were no effects of diary or teacher conditions over time for measures of gratitude or SoSB, there was an interaction between diary and teacher for measure of gratitude, indicating that teacher involvement led to more gratitude in those completing a gratitude diary but less gratitude for those completing an events diary. Teacher involvement also led to improvements in gratitude from the end of the study to follow up for both diary conditions. The strengths and weaknesses of the study are discussed. It is tentatively suggested that teacher involvement may be beneficial for universal gratitude interventions but that further research is needed, including whether gratitude may be more beneficial as a targeted intervention.

3.2 Introduction

Gratitude is a concept that has been described as an emotion, an attitude, a moral virtue, a habit, a personality trait and a coping response (Emmons & McCullough, 2003). It is generally defined in the literature as a positive response to a benefit or gift (Emmons, 2004; Emmons & Stern, 2013; Froh, et al., 2011; Peterson & Seligman, 2004). Whilst this is sometimes attributed to a particular benefactor, Wood et al. (2010) suggests that it also includes an appreciation of positive aspects of life.

Gratitude is associated with the field of positive psychology, which is focused on the study of positive emotions and character traits and the conditions that can enable individuals to flourish (Gable & Haidt, 2005; Seligman & Csikszentmihalyi, 2000; Seligman et al., 2005). One theory that explains the mechanism through which gratitude can impact on an individual is broaden-and-build theory (Fredrickson, 2001). This theory suggests that negative emotions narrow a

person's focus to deal with specific threats, while positive emotions broaden a person's capacity for thought and action and build personal resources, including intellectual, social and psychological assets, which can lead to improvement in wellbeing over time.

3.2.1 Effects of gratitude

There are a number of benefits associated with gratitude which relate to wellbeing, including happiness (McCullough et al., 2002; Watkins, 2004), hope and optimism (Hill and Allemande, 2011; Witvliet et al., 2019), reduced upward comparisons (McCullough et al., 2002), reduction in stress (Wood et al., 2008) and lower levels of anxiety and depression (Cregg & Cheavens, 2021). Wood et al. (2009) found that trait gratitude predicts levels of wellbeing above the effect of thirty other personality traits. Whilst most research into gratitude and wellbeing has been carried out in western countries, a longitudinal study carried out in Chile by Unanue et al. (2019) found that there was a bi-directional longitudinal link between gratitude and life satisfaction, suggesting a virtuous cycle of human wellbeing.

Gratitude has also been shown to contribute to the building and maintenance of healthy relationships (Emmons & Shelton, 2002; Froh et al., 2010; Wood et al., 2010). The grateful person is motivated to behave prosocially towards the benefactor and the behaviour of the benefactor is thereby reinforced, encouraging them to behave morally in the future (McCullough et al., 2002). Emmons and Stern (2013) suggest that gratitude helps to regulate relationships by solidifying, affirming, and strengthening them.

Whilst many of these studies are correlational, and, therefore, cannot claim a causal effect between higher levels of gratitude and positive emotions, there is a growing body of research on gratitude interventions which has demonstrated the positive benefits of recording or expressing gratitude. Although there is not consensus in the literature about whether gratitude is a state that varies moment to moment or a more stable personality trait, the fact that interventions have been designed that attempt to increase gratitude over time by drawing participants' attention to people or things they are grateful for, suggests that gratitude is a trait that could be modified.

3.2.2 Gratitude interventions

Gratitude interventions, such as participants regularly recording what they are thankful for, have been shown to increase positive emotions (Dickens, 2017; Emmons & McCullough, 2003; Gallup, 1999; Peterson & Park, 2006). In Gallup's (1999) survey of American teens, 90% of respondents indicated that expressing gratitude helped them to feel "extremely happy" or "somewhat happy." In a study by Emmons and McCullough (2003) participants either wrote

about gratitude over the past day or week, or about hassles or events. The researchers also asked them about their life as a whole over the last week and expectations for the coming week. Participants in the gratitude condition reported that they felt better about their lives as a whole and were more optimistic about their future than students in the other two conditions.

However, according to Folk and Dunn (2023), there are an insufficient number of studies involving gratitude interventions that are pre-registered or sufficiently powered to be able to make a judgment about their effectiveness. In one of the only two studies reviewed that were pre-registered and sufficiently powered, Nelson-Coffey et al. (2021) asked a sample of American parents to write a gratitude letter (n = 395) or write about how they had spent the previous week (control; n = 217). Parents who wrote the gratitude letter reported significantly higher levels of positive affect (PA) immediately after the task compared with those in the control condition, but they did not differ in negative affect (NA) or happiness. A similar finding was reported in the second study (Walsh et al., 2022), where a sample of American undergraduates expressed gratitude on three separate days, and then reported their happiness the following day (n per condition \approx 229): compared with the control activity, participants who expressed gratitude by social media or text message reported significantly greater PA, but not significantly lower NA throughout the intervention. Additionally, these benefits disappeared quickly once the study ended.

3.2.3 Gratitude in children and young people

Whilst the research base is growing, there is less known about gratitude in children and young people. This may be because there is not a consensus about when children develop an understanding of gratitude. Whilst some research has found that children as young as five can articulate what they are grateful for (Owens and Patterson, 2013), there are a limited number of studies that have explored gratitude in young children. According to Emmons and Shelton (2002), gratitude probably matures by age 10. One explanation for this is that gratitude requires empathy (Lazarus and Lazarus, 1994), which is sufficiently developed in children by this age (Peterson & Park, 2006).

Froh et al. (2008) found that young adolescents who kept a diary of five things they were grateful for each day for two weeks reported higher levels of gratitude compared to keeping a record of daily hassles or neutral events. Diebel et al. (2016) and Cripps (2019) replicated this finding with primary aged children. Baumsteiger et al. (2019) found that adolescents between 16 and 18 years showed increased levels of gratitude following the completion of a group intervention compared to a control group. A recent meta-analysis that included children and adolescents (Diniz et al., 2023) showed increased levels of gratitude and other positive emotions for those

who received an intervention. However, there was huge heterogeneity between the studies included. Some of the studies incorporated more than one positive psychological intervention other than gratitude (Osborn et al., 2020; Roth et al., 2017), making it difficult to ascertain whether it was specifically the gratitude intervention which was responsible. Some of the studies included also involved a clinical population of children with depression (Kwok et al., 2016; Osborn et al., 2020), making it difficult to be sure of the application to the general school population. The implications of these findings by Diniz et al. (2023) is that there is a need for more gratitude research to be carried out with young people in educational settings.

Some studies have failed to induce higher levels of gratitude in children compared to a control group following intervention (Bowen, 2023; Owens & Patterson, 2013; Shuttleworth, 2018). One reason for this may be that many gratitude interventions are carried out within the same class as the control groups, which may affect fidelity of the intervention. Research has indicated that one aspect of the school environment that leads to the most gratitude is the teacher-pupil relationship (Cedillo Berber et al., 2019; Howells, 2014; Howells & Cumming, 2012). Cedillo Berber et al. (2019) suggest that it is an interactive and dynamic process in the classroom. Therefore, having a gratitude intervention and a control condition within the same class and with the same teacher may inadvertently lead to a higher level of gratitude for the control group as they are part of that interactive and dynamic process.

3.2.4 Gratitude and sense of school belonging

Baumgarten-Tramer (1938) suggested that gratitude is responsible for social cohesion, as it creates a relationship among people, developing their sense of community. Gratitude studies that have been carried out in the school environment have found evidence to suggest that it leads to stronger relationships (Howells and Cumming, 2012), more satisfaction with school (Froh et al., 2008) a greater sense of school belonging (Cripps, 2019; Diebel et al., 2016) and more motivation to help and stay connected to others (Froh et al., 2010). However, not all gratitude diary studies have shown an increase in sense of school belonging compared to recording neutral events (Shuttleworth, 2018).

3.2.5 Role of teacher in gratitude and sense of school belonging

It has been demonstrated in the literature that teachers have an impact on the wellbeing and sense of belonging children feel (Gordon et al., 2004) and children have an impact on teachers' feeling of wellbeing and sense of belonging (Cedillo Berber et al., 2019). It could be hypothesised, then, that having teachers complete gratitude diaries alongside the children in their class might lead to increased gratitude and sense of belonging for both teachers and

students. Liauw et al. (2018) suggest that the role of teachers in supporting gratitude is crucial because they create a classroom environment that relates to students' positive interactions with others. Gordon et al. (2004) found that students most often mentioned their teachers as a reason for feeling appreciative. It has been suggested in the literature that gratitude is reinforcing (Howells & Cumming, 2012; McCullough et al., 2002). Therefore, the more that gratitude is recognised by teachers, the more they are likely to reciprocate, creating more gratitude in pupils and vice versa in a 'beneficent circle of gratitude' (White, 1999, p 47).

In addition, modelling of gratitude has been shown to be beneficial for the development of gratitude in children. Individuals explicitly remember being taught to be grateful (Eisenstein and Bodman, 1993), especially when bestowed by adults (McAdams & Bauer, 2004). Obeldobel and Kerns (2021) found that children's gratitude was higher when parents modelled gratitude. This finding aligns with social learning theory (Bandura, 1977), which suggests that individuals can learn behaviour through the observation of models. Since it has been shown in the literature that gratitude can be induced through intentional activities, it could be reasonably assumed that having gratitude modelled by an adult could increase gratitude even further. Furthermore, sharing of gratitude has shown to be beneficial to increasing wellbeing. Lambert et al. (2013) found that those who completed a daily gratitude diary for four weeks and shared those entries twice per week, reported more satisfaction with life and greater happiness than those who completed a gratitude diary with no sharing. As teachers are likely to share their gratitude (and encourage children to do the same), this could be another benefit of involving teachers in gratitude interventions. Research highlighting the importance of teachers for children's gratitude and vice versa - the reciprocal nature of gratitude that has been highlighted in the literature - as well as research indicating that gratitude can be modelled by adults, led to the hypothesis that teachers could have a role in a study that aimed to increase feelings of gratitude in children.

In summary, there are many studies that have shown gratitude interventions can lead to increased feelings of gratitude, as well as other helpful emotions such as wellbeing, although some studies have been criticised for their lack of rigour. There is a growing body of research into the effects of gratitude diary interventions with CYP and, whilst some studies that have shown increased gratitude, wellbeing and sense of belonging in CYP, there are also studies that have not shown a difference between keeping a gratitude diary and events diary. In addition, studies have shown that positive relationships between teachers and children are important for sense of belonging and impact feelings of gratitude in teachers yet there is no research that has included both children and teachers in the same gratitude intervention.

3.2.6 Current study

As discussed, there is a growing body of research into the effects of gratitude interventions for increasing gratitude and other positive emotions. Recently, the importance of teachers noticing and recording their gratitude has been explored (Garg, 2020; Howells, 2014; Howells & Cumming, 2012). However, to date no research has looked at the effect of both teacher and children regularly recording gratitude together. Therefore, this study aims to address a novel question: how does teacher involvement in a school-based gratitude diary intervention impact on feelings of gratitude and belonging? To address this, the researcher, a trainee educational psychologist, examined the effects of a four-week gratitude diary intervention on gratitude and sense of school belonging, measured using standardised questionnaires. Classes in one primary school were randomly assigned to one of four conditions: gratitude diary with teacher involvement, gratitude diary with no teacher involvement, events diary with teacher involvement and events diary with no teacher involvement.

There were three hypotheses proposed:

Children who keep a gratitude diary with teacher involvement will show the greatest improvements in Gratitude and SoSB in comparison to the other three conditions.

Children who keep gratitude diaries will show greater improvements in Gratitude and SoSB than those who keep events diaries.

Children who keep diaries with teacher involvement will show greater improvements in SoSB than those who keep them independently.

It was felt that there were a few possible mechanisms which might explain these expected impacts. One is the proposition put forward by McCullough et al. (2001) that gratitude is a moral reinforcer, suggesting that those who were in the gratitude condition would be more likely to perform acts that others could be grateful for, which would then encourage others to do the same, leading to more feelings of gratitude. Another was that children being explicitly taught to notice things that they could be grateful for can lead to increased levels of gratitude (Obeldobel and Kerns, 2021), thereby affecting their feelings of gratitude and sense of school belonging (in the teacher condition, this could be explicitly modelled by the teacher). Lastly, those in the gratitude diary with teacher involvement condition could be sharing their entries, facilitated by the teacher, which might reinforce feelings of gratitude: Lambert (2013) found that sharing gratitude was more beneficial than recording it alone.

3.3 Method

3.3.1 Ethics

The study received ethical approval in May 2023 from the University of Southampton's Ethics and Research Governance Committee (ERGO II), number 80736 (see Appendix F for ethics application).

3.3.2 Participants

A priori power calculations were carried out using G* Power version 3.1.9.2 (Faul et al., 2014). The sample size to detect a significant group difference (alpha = .05 and power of 80%) for four groups at three time points was calculated to be 232 with a small effect size (0.1). A small effect size was used because of research showing that positive psychology interventions have a small effect (Bolier et al., 2013).

Participants were recruited from one large junior school in the South of the UK (n = 572). The school was known to the lead researcher and had expressed interest in ways that they could improve children's wellbeing. The lead researcher approached the school and answered questions that the SENCo had about the study as well as those raised by staff following a presentation outlining the study's aims and procedure. Following this, information was communicated to parents, who could use the consent form to opt out of the study.

Two parents chose to opt out of the study and one pupil left the school before the study began. Five children chose not to take part and four were excluded as teachers felt they could not access the questionnaires or the intervention due to their SEN, leaving 560 in the sample. Participants' data was not included in the analysis if their diaries did not contain 10 or more entries (n = 106). Participants' data was also excluded from the analyses of each questionnaire if they did not complete 75% or more of the questions. Furthermore, on the Questionnaire of Appreciation in Youth (QUAY), if they had answered in any way other than NEVER for question 8 (about how often they visited the moon) at any time point, their other answers were manually checked: where they had given the same answer to the other 11 questions, this data was also excluded as it suggested they had not understood the questions. This resulted in 365 participants being included for analysis of the gratitude measure and 378 participants being included for sense of school belonging. Information was collected on participants' gender at follow up with children self-reporting 'boy' 'girl' or 'prefer not to say'. For the gratitude measure, 172 children reported as boys, 177 reported as girls, with 16 preferring not to say. For SoSB, 179 reported as boys, 183 as girls, with 16 preferring not to say.

3.3.3 Design

A randomised control experimental design was used to measure the impact of a four week diary intervention on participants' gratitude and sense of school belonging across three time points – prior to the intervention (T1), at the end of the intervention (T2) and at follow up three weeks later (T3). Classes in each year group (from 3 to 6) were randomly assigned to four conditions: gratitude diary with teacher involvement, gratitude diary without teacher involvement, event diary with teacher involvement and event diary without teacher involvement.

As there were 5 classes in each year group and 4 conditions, each condition included two classes from the same year group, Table 4 shows the classes that were in each condition.

Table 4 Class and year group in each condition

| | | Event diary condition | | Gratitude diary condition | | |
|-------------------------|--|-----------------------|-------------------|---------------------------|-------------------|---------------------|
| | | Teacher involvement | No involvement | teacher involvement | No involvement | teacher involvement |
| Classes and year groups | | Class 5 (year 3) | Class 3 (year 5) | Class 2 (year 5) | Class 1 (year 4) | |
| | | Class 11 (year 5) | Class 4 (year 3) | Class 7 (year 3) | Class 6 (year 3) | |
| | | Class 12 (year 4) | Class 13 (year 4) | Class 8 (year 3) | Class 10 (year 4) | |
| | | Class 15 (year 6) | Class 17 (year 6) | Class 9 (year 4) | Class 16 (year 6) | |
| | | Class 19 (year 5) | Class 18 (year 6) | Class 14 (year 6) | Class 20 (year 5) | |

3.3.4 Measures

3.3.4.1 The Belonging Scale

The Belonging Scale (Frederickson and Dunsmuir, 2009) is designed to measure the extent to which a participant feels a sense of belonging at school and was adapted from the Psychological Sense of School Membership Scale (Goodenow, 1993) to make it suitable for British children and a younger age group. The scale is a 12 item self-report questionnaire containing a three point response scale: 'no not true', 'not sure' and 'true' (Appendix G). It is scored from 1 (no not true) – 3 (true) with 5 items (q3, 5, 8, 9 and 10) being reverse coded. Scores

are averaged and an overall score below 2 is considered a low sense of school belonging (Frederickson et al., 2007). This adapted questionnaire has been reported to have high alpha reliability and consistency (Frederickson et al., 2007). In the current study, these items formed an index with satisfactory to good reliability, $\alpha = .767$ (T1), $.841$ (T2), $.828$ (T3).

3.3.4.2 Questionnaire of appreciation in youth (QUAY)

The Questionnaire of Appreciation in Youth (QUAY, Smith 2020) was used to measure gratitude. This measure has been specifically designed for children and was used as an alternative to the GQ-6. The GQ-6 was intended for use with adults and, whilst it has been validated with a sample of 10-19 year olds (Froh et al. & Watkins, 2011), the current sample included participants as young as seven. The QUAY is a 12 item scale, with one question (question 8) used as a check for attention (Appendix H). Participants' overall scores were calculated by adding the scores for each of the remaining 11 items.

Participants rated items on a 5-point rating scale (1= never, 5 = always). This gave participants a minimum score of 11 and a maximum score of 55. Smith (2020) found good reliability of $.86$. In a recent gratitude study, Bowen (2023) reported satisfactory reliability for the measure of $\alpha = .72$ at T1, $\alpha = .80$ at T2 and $\alpha = .79$ at T3.

In the current study, these items formed an index with satisfactory to good reliability, $\alpha = .784$ (T1), $.820$ (T2) and $.846$ (T3).

3.3.5 Procedure

A large junior school in the South of England was approached and invited to take part in the study. The school was recruited following an email sent directly to the SENCo of the school by the lead researcher. The SENCo at the school then replied asking for more information (see Appendix I for school information sheet) and the lead researcher and SENCo then met over TEAMS to give more information and allow for questions before consent was sought from the headteacher (Appendix J).

Following consent being given by the head teacher, the lead author explained the research to the teachers in one of their weekly team meetings and allowed time for their questions to be asked. Teachers did not formally opt in or out of the study through use of a consent form but could do so verbally. An information sheet was then sent to parents electronically and an opt-out consent form was attached (Appendix K). The method for the data collection was identical pre (T1) and post-intervention (T2) and at follow up (T3). Baseline measures were collected three days before the start of the intervention using the two standardised questionnaires and post-intervention data was collected using the same questionnaires on the last day of the

intervention. Follow up data was collected three weeks after the end of the intervention using the same questionnaires.

Prior to the first questionnaires being administered, the lead author delivered a script to the teacher of each class on the meaning of gratitude and gave instructions on how to fill out the scales on both questionnaires (Appendix L). Questionnaires were administered as a whole class by the class teacher. To control for reading difficulties, the class teacher read out each question whilst each participant completed their questionnaire.

Following the first questionnaires being administered (at T1), the lead researcher assigned unique identification numbers to each child and added them to a printed list of participant names (a look up sheet). This was then copied and each copy securely stored at the school. The lead researcher added the unique identification numbers to the questionnaires, before removing the names of participants and taking them off site. The same unique identification numbers were added to subsequent questionnaires (T2 and T3) and to the diaries so that participants' information was quasi-anonymised before being analysed by the researcher but so that children could still be identified if there was a safeguarding concern.

On the first day of the intervention, the diaries were introduced to each class (Appendix M) and the teacher explained the diaries through use of a script (Appendix L). Participants were not explicitly made aware that there were four different conditions but it was acknowledged in the script that the children may be aware of there being different conditions and to encourage the children to adhere to their particular condition. The teachers were aware of the four different conditions and knew which condition they were in. This is because it was not practical to blind them to the condition given their regular communication with each other. Those teachers who were completing a diary alongside the children in their class were given an identical diary to those received by children, but in A4 size so that the children could better observe them using it. They were advised to share their entries with the class as long as they felt comfortable doing so. The teachers who were not completing a diary alongside their class were advised to find a different task to do during the time that the children spent filling out their diaries each day.

The front cover of each diary looked identical, but contained different instructions inside (Appendix M). The instructions on the inside cover of the gratitude diary were as follows:

Sometimes it is good to think about things that make you feel thankful. These thoughts are like jewels in a treasure chest. Even the smallest jewels are precious.

*Your task is to keep a daily diary for 20 days to write about **3 things** you are thankful for that have happened during your day at school.*

Chapter 3

The following examples were given:

I am thankful for my teacher who helped me when I had a question.

I am thankful for my friend who let me borrow a pencil when I did not have one.

I am thankful for the sunshine today because it made my face feel warm.

The instructions on the inside cover of the event diary were as follows:

*Your task is to keep a diary for 20 days to write about **3 things** that have happened during your day at school.*

The following examples were given:

We had an assembly about harvest.

I played football at lunchtime.

We learned about sound in science.

In each condition, children were encouraged to write only about school, rather than home, in order to minimise the effect of their different experiences outside of school, as the focus of the study was to strengthen sense of belonging at school.

Following collection of the questionnaires at T1, the lead researcher answered any questions the teachers had about the intervention and then left them to implement the diary intervention over the next four weeks. Although they were encouraged to make time every afternoon for the diaries to be completed, it was acknowledged that weekly PPA cover, assemblies and special events may make daily recording unfeasible. Therefore, a suggestion of 15 entries over four weeks was made. The lead researcher returned at the end of the study to distribute the questionnaires (T2) and collect the diaries. They then returned three weeks later to distribute the questionnaires to teachers for the final time (T3). Where there was pupil absence and a questionnaire had not been completed, teachers were encouraged to allow children time to complete them the next day or up to three days following, but not beyond so that their data was not affected by completing the questionnaire at a significantly different time point to the other children. These questionnaires were kept securely at school and then collected by the researcher on the next visit.

All children's diaries were read in full at the end of the intervention to ensure fidelity to the intervention, to count the number of entries and to identify any safeguarding concerns arising from the diaries. However, teachers' diaries were not checked as they did not complete the questionnaires and so their quantitative data did not form part of the study. Any queries arising

from this check were discussed with the research team. One safeguarding query led to the lead researcher contacting the SENCo, who then used the look up sheet to identify the child. Following fidelity checks, all diaries were deemed suitable for inclusion.

3.3.6 Statistical analysis

Exploration of data indicated a negatively skewed distribution for gratitude amongst both diary conditions and teacher involvement/no teacher involvement groups. This was also the case among all groups for sense of school belonging. Research suggests that the F statistic (in ANOVA) is robust to moderate violations of normality when sample sizes are equal, and when they are skewed in the same direction (Field, 2019). Therefore, the decision was made to proceed with the ANOVA.

To test the hypotheses a 3 x 2 x 2 mixed ANOVA was used to explore the differences between the groups (gratitude diary and event diary, teacher involvement and no teacher involvement) at three time points. Assumptions of sphericity were violated for gratitude, $\chi^2(2) = 9.344, p = .009$ and sense of school belonging $\chi^2(2) = 8.526, p = .014$. The probability values were corrected using Greenhouse-Geisser values.

As children were assigned to conditions by class, the mean scores from the QUAY and Belonging Scale were calculated for each class and another 3 x 2 x 2 mixed ANOVA was used, with the class as the unit of analysis.

3.4 Results

Once exclusion criteria had been applied, the data for 365 participants was analysed for gratitude and data for 378 participants was analysed for sense of school belonging at three time points (T1, T2 and T3) using SPSS. Table 5 shows demographic data for each condition for the QUAY and Belonging Scale.

Table 5 Demographic information for each group

| Diary condition | Questionnaire | Participants | Gender | | |
|-----------------|---------------|--------------|--------|--------|-------------------|
| | | | Male | Female | Prefer not to say |
| | QUAY | 93 | 44 | 47 | 2 |

| | | | | | |
|--|------|-----|----|----|---|
| Event diary/teacher involvement | SoSB | 96 | 45 | 49 | 2 |
| Event diary/no teacher involvement | QUAY | 96 | 48 | 41 | 7 |
| | SoSB | 95 | 47 | 41 | 7 |
| Gratitude diary/teacher involvement | QUAY | 81 | 34 | 44 | 3 |
| | SoSB | 87 | 37 | 47 | 3 |
| Gratitude diary/no teacher involvement | QUAY | 95 | 46 | 45 | 4 |
| | SoSB | 100 | 50 | 46 | 4 |

3.4.1 Main analyses

A 3x2x2 mixed model ANOVA was used to explore whether the intervention groups (gratitude diary and teacher involvement conditions) had induced greater levels of Gratitude compared with the control conditions (events diary and no teacher involvement conditions) across time points. Specifically, we had predicted that children who kept gratitude diaries would show greater improvements in Gratitude and SoSB than those who kept events diaries, and this would interact with teacher involvement so that children who kept a gratitude diary with teacher involvement would show the greatest improvements in Gratitude and SoSB. *Note that when referring to gratitude as measured by the QUAY, the G is capitalised to differentiate it from the gratitude diary condition.*

3.4.1.1 Gratitude (QUAY)

The means and standard deviations for each group at each time point are shown in table 6.

Table 6 Descriptive statistics for Gratitude scores across time points

N = 365

| | Event diary | | Gratitude diary | |
|----|---------------------|------------------------|---------------------|------------------------|
| | Teacher involvement | No teacher involvement | Teacher involvement | No teacher involvement |
| | N = 93 | N = 96 | N = 81 | N = 95 |
| | Mean (SD) | Mean (SD) | Mean (SD) | Mean (SD) |
| T1 | 41.74 (7.14) | 42.74 (5.81) | 42.79 (6.84) | 41.73 (7.35) |
| T2 | 42.06 (7.79) | 43.88 (5.99) | 43.36 (7.72) | 41.81 (7.29) |
| T3 | 43.17 (7.07) | 43.08 (7.05) | 43.80 (6.89) | 40.91 (7.92) |

There was a significant interaction between diary and teacher, $F(1,361) = 4.500, p = .035, \eta_p^2 = .012$, suggesting that teacher involvement had a different effect in each diary condition. As Figures 2 and 3 show, those who completed a gratitude diary alongside their teacher reported the most Gratitude, whilst those in the events diary condition reported more Gratitude when their teacher was not involved. The interaction between time and teacher involvement was also significant, $F(1.950, 703.963) = 3.975, p = .020, \eta_p^2 = .011$. Over time, having teacher involvement was associated with Gratitude increasing between T2 and T3 (figure 3), whilst Gratitude in those pupils doing events or gratitude diaries without their teacher decreased from T2 to T3 (figure 2).

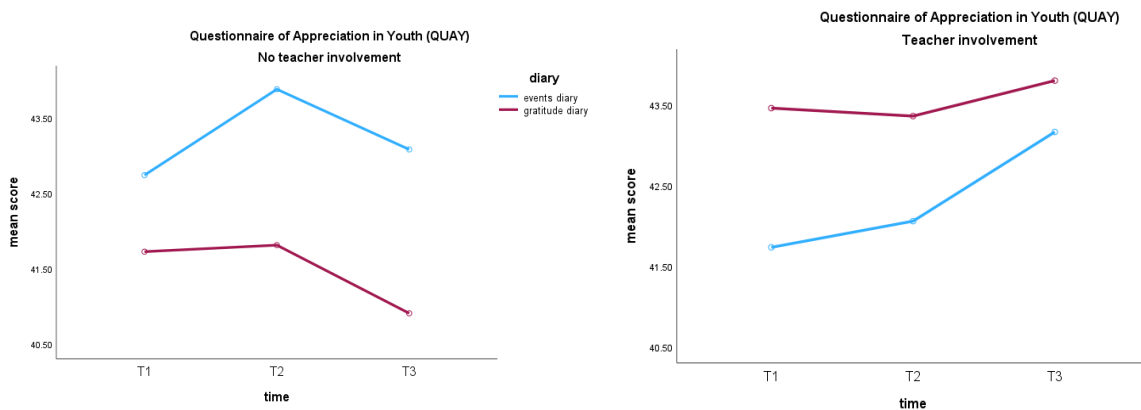


Figure 2 and Figure 3 Mean Gratitude scores over time for children completing diaries without teacher involvement and with teacher involvement

There was no significant effect of time, $F(1.950, 703.963) = 1.739, p = .177, \eta_p^2 = .005$ or diary, $F(1,361) = .340, p = .560, \eta_p^2 = .001$ or teacher involvement, $F(1,361) = .504, p = .478, \eta_p^2 = .001$. There was no significant interaction between time and diary, $F(1.950, 703.963) = .772, p = .460, \eta_p^2 = .002$ or between time, diary and teacher, $F(1.950, 703.963) = .529, p = .585, \eta_p^2 = .001$.

3.4.1.2 Sense of school belonging

The means and standard deviations for each group at each time point are shown in table 7.

Table 7 Descriptive statistics for sense of school belonging scores across time points

N = 378

| | Event diary | | Gratitude diary | |
|----|--|---|--|--|
| | Teacher involvement N = 96 Mean (SD) | No teacher involvement N = 95 Mean (SD) | Teacher involvement N = 87 Mean (SD) | No teacher involvement N = 100 Mean (SD) |
| T1 | 2.44 (.35) | 2.39 (.35) | 2.47 (.38) | 2.42 (.39) |
| T2 | 2.45 (.39) | 2.44 (.35) | 2.47(.46) | 2.40 (.42) |
| T3 | 2.44 (.39) | 2.44 (.38) | 2.48 (.45) | 2.39 (.40) |

A 3 x 2 x 2 ANOVA was used to explore whether the intervention groups (gratitude diary and teacher involvement conditions) had induced greater levels of sense of school belonging compared with the control conditions (events diary and no teacher involvement conditions) across time points. We had predicted that children who keep a gratitude diary would show improvements in SoSB and this effect would be greatest for those who kept their diary with teacher involvement.

Inferential statistical analysis found no real changes or differences between the conditions in SoSB. There was no significant effect of time, $F(1.956, 731.470) = .247, p = .776, \eta_p^2 = .001$ or diary, $F(1,374) = .022, p = .883, \eta_p^2 = .000$ or teacher $F(1,374) = 1.663, p = .198, \eta_p^2 = .004$. There

was no significant interaction between time and diary, $F(1.956, 731.470) = 1.226, p = .294, \eta_p^2 = .003$, time and teacher, $F(1.956, 731.470) = .017, p = .982, \eta_p^2 = .000$ or between teacher and diary, $F(1, 374) = .602, p = .438, \eta_p^2 = .002$. There was no significant interaction between time, diary and teacher, $F(1.956, 731.470) = .919, p = .397, \eta_p^2 = .002$.

Figure 4 shows difference in sense of school belonging scores in the event diary and gratitude diary conditions when there was no teacher involvement. Despite there being no significant differences, the children who did a gratitude diary alongside their teacher seemed to have the highest SoSB scores, although they also had the highest SoSB scores at baseline (figure 5).

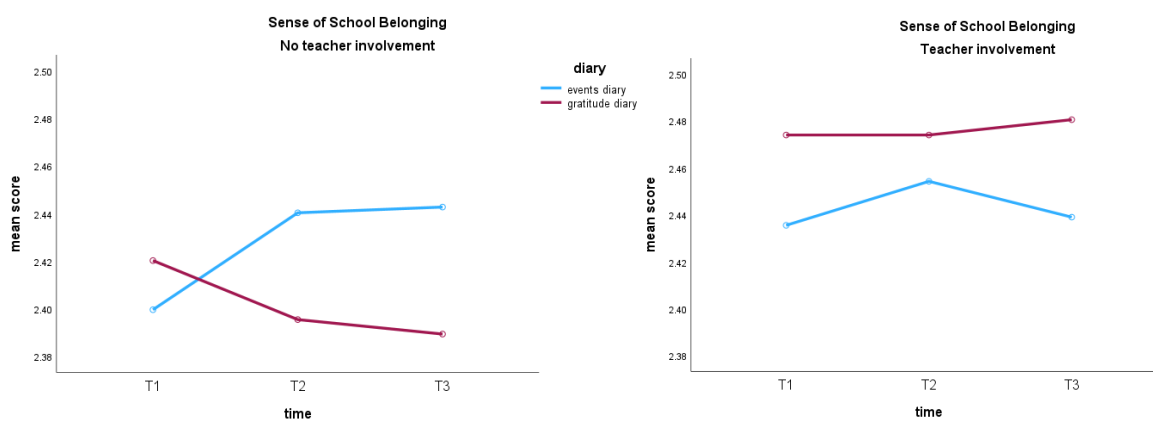


Figure 4 and Figure 5 Mean SoSB scores over time for children completing diaries without teacher involvement and with teacher involvement

3.4.1.3 Gender

As we did not find the predicted effects of diary type and teacher involvement on SoSB, we carried out exploratory analyses to assess whether this could be due to participant characteristics. Previous research (Diebel et al., 2016) has shown that gender may affect the impact of in school gratitude interventions. Analyses for gender were carried out to explore the effects of gender. A mixed $3 \times 2 \times 2 \times 3$ ANOVA was carried out to explore the effects of gender (3) across teacher involvement (2) and diary (2) conditions and time points (3). Appendix N shows the results of these ANOVAs for the measures of Gratitude and SoSB.

Due to the small number of participants that preferred not to give a gender (16), it was decided to exclude these participants from the analysis. Like the $3 \times 2 \times 2$ ANOVA results, there was a significant interaction found between time and teacher, $F(1.953, 666.012) = 5.559, p = .004, \eta_p^2$

= .016, and between diary and teacher, $F(1, 341) = 4.279, p = .039, \eta_p^2 = .012$ for the QUAY. There were no other significant interactions or main effects. SoSB also showed no significant effects when gender was included as a variable (see Appendix N).

3.4.1.4 Randomisation checks

3.4.1.4.1 QUAY

An ANOVA was used to check whether there were significant group differences at baseline for measures of Gratitude. There was no significant effect of diary, $F(1,424) = 0.806, p = .370$ or teacher, $F(1,424) = 0.036, p = .849$ and at baseline there was no significant interaction between the diary conditions and teacher involvement $F(1, 424) = 2.398, p = .122$.

3.4.1.4.2 SoSB

An ANOVA was used to check whether there were significant group differences at baseline for measures of SoSB. There was no significant effect of diary, $F(1, 435) = 2.014, p = .157$, teacher, $F(1,435) = 1.417, p = .235$ or an interaction between diary and teacher, $F(1, 435) = .336, p = .563$ at baseline for SoSB.

3.4.1.5 By class analysis

As children were nested in their classes and some of the variance could have been attributed to class differences, an ANOVA was also carried out using the class means for Gratitude and SoSB at each time point. There were no significant effects found for both measures, suggesting that the results presented above must be interpreted cautiously.

3.4.1.6 Summary of results

In summary, for gratitude measured with the QUAY, there was a significant interaction between diary and teacher conditions, which indicates that the effect of teacher involvement differed between diary conditions. When the teacher was involved, those in the gratitude condition showed more Gratitude; when the teacher was not involved, those in the event diary condition showed more Gratitude. There was also a significant interaction between time and teacher, with children in both diary conditions showing increased Gratitude scores between T2 and T3 when their teacher was involved, whilst Gratitude in groups without teacher involvement decreased from T2 and T3. Whilst the pattern was similar for the Belonging Scale, none of the interactions were significant. Exploratory analyses found no significant difference between males and females for Gratitude or SoSB scores.

3.5 Discussion

Research has shown that gratitude interventions can be beneficial in inducing gratitude and sense of belonging in children (Cripps, 2019; Diebel et al., 2016). However, to date, no gratitude intervention has included the teacher participating alongside the children, despite research that shows that children's gratitude is often related to their teacher and that teachers contribute to children's sense of school belonging (Gordon et al., 2004). This study aimed to explore the effectiveness of a four-week gratitude intervention in a large junior school. It was hypothesised that completing a gratitude diary alongside the class teacher would lead to greater gratitude and sense of school belonging than completing an events diary or completing a gratitude diary without the teacher. The research findings will be presented along with strengths and limitations of the study, implications for practice and directions for future research.

3.5.1 Discussion of findings

To explore the impact of teacher involvement on a gratitude diary intervention and test whether a four week gratitude intervention was successful in inducing Gratitude and SoSB, the QUAY and the Belonging Scale was administered at three time points. There were three hypotheses proposed and this discussion of findings will begin by discussing each one.

3.5.1.1 Hypothesis 1

Children who keep a gratitude diary with teacher involvement will show the greatest improvements in Gratitude and SoSB in comparison to the other three conditions.

None of the conditions in the study showed increases in children's Gratitude or SoSB over time, suggesting that doing a gratitude diary alongside a teacher does not lead to greater Gratitude and SoSB. However, we did find evidence that when a teacher was involved in the gratitude intervention, participants reported higher levels of Gratitude and when there was no teacher involvement, those in the event diary condition reported higher levels of Gratitude. This suggests that, for pupils completing a gratitude diary, having teachers doing it as well has a positive effect on their Gratitude. However it should be noted that this effect was similar at all time points and was present before the children began the intervention.

In addition, when teachers had completed their own diaries, gains in Gratitude seemed to continue beyond the intervention to follow up for both diary types. However, for the classes doing gratitude diaries without teacher involvement, there was a different pattern - Gratitude dropped down between the end of the intervention (T2) and follow up (T3)

Although there was not a significant interaction found between diary and teacher conditions for measure of SoSB, the pattern was similar, with those in the gratitude condition reporting a greater sense of belonging when their teacher was completing a diary with their class, and those in the events diary condition reporting higher levels of SoSB when they completed their diaries alone.

This is the first study that has introduced the variable of teacher involvement into a gratitude diary study, so there are no previous studies with which to compare the findings. One hypothesis to explain why children doing a gratitude diary with teacher involvement experienced more Gratitude than those completing the same diary without the teacher is that the gratitude diaries may require more effort than events diaries and create fatigue (Emmons, 2013). However, when teachers were part of this intervention, they could ease this burden by giving their class ideas for what they may be grateful for.

3.5.1.2 Hypothesis 2

Children who keep gratitude diaries will show greater improvements in Gratitude and SoSB than those who keep events diaries.

As mentioned above, neither Gratitude nor SoSB increased over the intervention, suggesting that those completing a gratitude diary intervention did not experience greater improvement in Gratitude or SoSB. However, for the classes whose teacher completed a gratitude diary, children who kept gratitude diaries experienced more Gratitude than those who completed events diaries.

A lack of improvement in Gratitude has also been found in other studies which compared a gratitude intervention to an events diary control (Bowen., 2023; Shuttleworth, 2018). However, these studies had an events diary and gratitude diary condition within the same class, which could have led to a lack of fidelity of the intervention: this should not have been the case in the present study. One possible explanation for the present study's results might be that participants in both the events and gratitude condition were all feeling gratitude, perhaps related to contemporaneous events (and may even have been expressing it to each other, whilst not writing it down). Another possibility is that gratitude interventions might have more impact on those with low trait gratitude (Rash et al., 2011). Out of a maximum score of 55 on the QUAY, the mean for the gratitude with teacher involvement condition was 42.79, suggesting that these participants' level of Gratitude was already very high. This study, therefore, is consistent with the work of Bowen (2023) and suggests that more research is needed into the effects of a gratitude diary intervention which is targeted at pupils who are low in gratitude.

3.5.1.3 Hypothesis 3

Children who keep diaries with teacher involvement will show greater improvements in SoSB than those who keep them independently.

Sense of school belonging did not significantly increase in any of the study conditions. However, the pattern of results for SoSB was similar to those found for the Gratitude measure, with SoSB seeming higher for the teacher involvement condition, particularly for those completing gratitude diaries. The high level of sense of school belonging persisted for those who completed their gratitude diary with teacher involvement at follow up (T3), rather than effects diminishing once the intervention was over. Although these results were not significant, it suggests that having teachers involved in short-term gratitude diary interventions might lead to long term gains in sense of school belonging.

Whilst it is not possible to say definitively why children reported more Gratitude and SoSB at follow up when teachers were involved in completing a gratitude diary, one hypothesis is that noticing and sharing gratitude became part of the culture of the class, which carried on even when it was no longer being recorded.

As studies of school-based gratitude interventions have suggested a beneficial effect for sense of school belonging (Cripps, 2019; Diebel et al., 2016), it was hypothesised that those completing a gratitude diary would show greater induced sense of school belonging than those completing an events diary. In addition, based on research showing the role of the teacher in fostering sense of school belonging (Froh et al., 2008; Froh et al., 2010; Howells and Cumming, 2012), it was further hypothesised that teacher involvement would have a beneficial effect on sense of school belonging. These hypotheses were not supported. However, these results are consistent with other previous findings where sense of belonging did not increase as a result of a gratitude diary intervention (Bowen., 2023; Shuttleworth et al., 2018). Participants in the gratitude condition with teacher involvement had a higher mean score at end of intervention and follow up than the other groups, but also had a higher mean at baseline. As the highest mean score possible was 3, and at baseline the mean score was 2.47, this non-significant result could be due to a ceiling effect.

3.5.1.4 Findings from exploratory analyses

When the data was analysed by gender, the same interaction effects between time and teacher and between diary and teacher were found for the QUAY, suggesting that the effect of these variables was the same for boys and girls.

3.5.1.5 Summary of findings

In summary, the three hypotheses were not supported as those in the gratitude with teacher involvement did not show significantly bigger increases in Gratitude than those in the other three conditions. Instead, teacher involvement had a different effect on the two diary conditions, with those in the events diary condition showing more Gratitude when the teacher was not involved and those in the gratitude condition showing more Gratitude when the teacher was involved. Those with teacher involvement also had increased Gratitude between T2 and T3, whilst Gratitude scores for those without teacher involvement dropped between T2 and T3. This tentatively indicates that teacher involvement could be beneficial for children who keep a gratitude diary, as well as suggesting that the effect of the teacher may lead to increased Gratitude following the end of the intervention (in the short-term). Those in the gratitude diary condition did not show increased Gratitude compared to the event condition and those groups with teacher involvement did not show increased Gratitude and SoSB compared to those without teacher involvement.

3.5.2 Strengths and limitations

There are several strengths of this study. One strength is that it addresses a novel question about the impact of teacher involvement on gratitude diary interventions and tentatively suggests that gratitude interventions could benefit from having teachers involved, especially in the short term following the completion of the intervention. These gains were observed as a result of gathering follow-up data, which is a further strength of the study.

Another strength is the number of participants that were recruited for the study, allowing for meaningful comparisons to be made between the four conditions. The number of participants recruited and retained exceeded the number of participants estimated by G*Power that were necessary to detect a small effect size. Related to this is the work that went into engaging the teachers in the study, through presentation to staff during a staff meeting, answering questions and developing a script so teachers had enough information about their condition. This is likely to have contributed to the fidelity of the intervention as observed through reviewing diaries, as well as to the majority of teachers finding time four times per week for their class to record their entries.

Additionally, this study adds to the evidence base for the QUAY, which has only been used in one previous study (Bowen, 2023). In this study, the QUAY showed acceptable to good reliability at each time point, providing further evidence for the suitability of this instrument for measuring gratitude.

However, there are a number of limitations of this study, which are important to note. Whilst this was a large study, a large amount of data had to be excluded due to the minimum number of diary entries not being completed. As there was variance in the number of entries within classes, it could be that this was due to absence or children being taken out of class for interventions during the class diary writing time. In addition, where significant results were obtained, the effect sizes were very small.

Due to the size of the school and number of participants, it was not practical for the lead researcher to administer the questionnaires themselves or to introduce the diaries, therefore a script was given to teachers (Appendix L). However, there could have been individual differences in the way that the intervention was introduced, the way that the questionnaires were explained, how much time was given etc. The groups had different means at baseline for Gratitude and SoSB, even though they were randomly allocated. Although this can only be speculated, it may be that teachers informed their class of the condition they were in before administering the questionnaires, as the script revealing the condition that participants were in and the questionnaires were delivered at the same time. It may be useful in future studies to have the researcher administer the questionnaires and to do this a few days before revealing to participants the condition that they have been assigned. This would ensure that there can be no impact of condition at baseline.

Teachers were not asked to formally opt in or out of the study, since the headteacher had given consent on behalf of the school. This may also be considered a limitation due to the ethical implication of teachers feeling pressure to take part in the study. It may also have led to less enthusiasm from some teachers for the study.

Furthermore, it was suggested in the script that teachers that were taking part in the condition could share their entries with the class, but this was not mandatory, which could have led to sharing of entries in some classes, and not others. Individual differences between teachers could also have led to some facilitating sharing of entries between children and others not, which may have impacted the results, especially as this was one of the mechanisms suggested that could explain why gratitude may be higher in the gratitude with teacher involvement condition. Similarly, it could not be ascertained how much modelling of gratitude was done by teachers in that condition and individual differences could have impacted the results, meaning it was not possible to comment on the effect of teacher modelling on levels of gratitude. In addition, teachers' diaries were not checked, so it is not possible to know if they showed fidelity to the condition, which could have impacted on the children's Gratitude and SoSB scores.

Chapter 3

As the children were not split into the four conditions within their class, the variance found between the conditions could be due to the effect of children being nested in their classes rather than the condition. Although there were 5 classes per condition, which would reduce the error variance somewhat, it still creates another variable that is not part of the manipulation caused by condition. When class means were used in order to reduce this variance, none of the effects were significant, suggesting that only tentative conclusions can be drawn about the effect of having a teacher complete a gratitude diary alongside their class.

A further limitation of the study is that the face validity of the QUAY was not assessed using a group of pupils to check their understanding. Many of the participants answered something other than NEVER to the question 'how often do you visit the moon', which was intended to check attention. This suggested that they may not have understood the question and, perhaps, the whole questionnaire. However, it was also possible that these answers were intended as a joke, which is why the exclusion criterion noted in the method section was applied. In some cases there were missing answers to this questionnaire, especially by children in years three and four, suggesting that it may not have been as accessible to children – particularly younger children – than had initially been thought. Although data was excluded if 25% or more of the answers on the questionnaire were missing, it could be that some of the participants could not access it and so picked answers at random. This might explain why those in the gratitude condition did not make greater gains, especially since there were more of the younger year groups in this condition, who may not have understood the language of the questionnaires due to their developmental stage. In addition, previous research has shown that gratitude in children may not develop until age 10 (Emmons & Shelton, 2002). It may have been appropriate, therefore, to conduct the research with those children only in year 5 and 6 as they may have better understood the language of the questions, as well as having a more developed sense of empathy and understanding of the concept of gratitude. It may be useful for future studies to do a pilot study to check understanding of the questionnaires among younger children.

A further limitation of the study is that children that were reported as having SEN had their data excluded from the study. Although they were encouraged to take part in the intervention, in order to include them fully in the study, it would have been better to make the questionnaires more accessible and understandable for those children.

Finally, only one school was approached and recruited. The school were extremely enthusiastic to take part. Comments made by staff to the researcher included 'completing the gratitude diary is my favourite part of the day' and 'we really want to promote the wellbeing of children and this seems to be a great intervention to do this'. This could suggest that, as a school, the importance of gratitude and SoSB was already valued at a level of importance which perhaps exceeded that

of a typical junior school, affecting the generalisability of the findings. It might be, then, that the culture of the school was a factor. since pupils scored highly on Gratitude and SoSB at baseline.

3.5.3 Future research

The results from this study support the recommendation by Bowen (2023) that gratitude diaries might be better carried out as a targeted intervention for those lower in measures of gratitude than as a universal provision.

Another population that warrants further exploration is teachers. Whilst this was a quantitative study, some of the teachers expressed their enjoyment of recording daily gratitude alongside their class (informally to the researcher), with one reporting that it was the favourite part of their day and another commenting that it had really improved their own feelings of wellbeing.

Teachers' diaries were not examined and their gratitude or sense of school belonging was not measured due to the small numbers of participants. However, a diary intervention that focused on teachers, especially considering the high stress levels reported by teachers and the high attrition rate within the profession could be an interesting future study.

Related to this is the limitation of quantitative data to answer 'why' a gratitude intervention is more useful for some students than others. More qualitative research is needed into the impact of gratitude interventions. Interviews with both teachers and students about the perceived advantages or disadvantages of recording gratitude could be very beneficial in deciding on future interventions. For example, it may provide information on whether daily or weekly recording would be more beneficial for students or teachers, why some students' gratitude goes down as a result of gratitude interventions, as well as explaining why teachers' involvement in gratitude interventions are useful (or not) for some students.

This study encouraged teachers to share their own gratitude (or neutral events) with their class. As some research has shown that sharing gratitude with another person is more beneficial than simply recording it (Lambert et al., 2013), more research into this would be valuable. It is possible that, despite attempts to make the diaries appealing and interesting for children, with instructions to teachers that this was not to be presented as a writing lesson, simply sharing their gratitude orally may have been preferable and yielded more positive results than recording gratitude through writing, which may have been challenging for some students.

3.5.4 Implications for practice

One of the implications of this research is that recording daily gratitude does not always lead to children feeling significantly more grateful, therefore caution must be applied when

recommending this. However, there is some tentative evidence that feelings of gratitude increase, especially over time, when teachers are involved, therefore it may be appropriate for EPs to discuss with teachers whether they could record their own gratitude alongside their students. Although there is no direct evidence that teachers' gratitude increases as a result of such an intervention, anecdotal comments made by teachers involved in this study suggest the possibility that it could be useful for teachers' own wellbeing. Should future research confirm this hypothesis, EPs may be in a position to recommend this as an intervention for teachers themselves.

Another implication from the increase in Gratitude scores at follow up is that a gratitude intervention may have an impact for a short period following the conclusion of the intervention itself, although the study measured Gratitude three weeks following the conclusion of the intervention and so a longer term impact cannot be claimed. This may be particularly welcome when discussing this intervention to schools due to curriculum demands.

Finally, whilst the participants in this study already scored highly on Gratitude (as measured by the QUAY) before the study began, those who score lower initially may benefit more from this intervention. The field of positive psychology is focused on creating conditions for individuals to flourish (Seligman & Csikzentmihaly, 2000) and broaden-and-build theory (Fredrickson, 2001) suggests that individuals can develop their wellbeing, personal resources and create novel ideas through focusing on positive emotions. Therefore, by focusing on what is going well in their lives rather than ruminating on what is not going so well (which gratitude interventions encourage), children low in measures of Gratitude may benefit more. It may be useful for EPs to discuss this as an intervention with school staff who feel that wellbeing and Gratitude is currently low in their school.

3.5.5 Conclusion

In conclusion, this study has made a novel contribution to the gratitude literature by considering the impact of teacher involvement in gratitude interventions for increasing Gratitude and SoSB in children. The interaction effect between diary condition and teacher involvement suggests that teachers may contribute to increased levels of Gratitude in children by doing the intervention alongside them. Furthermore, the interaction between time and teacher suggests that teachers being involved in interventions such as gratitude diaries could have benefits for children after the intervention has come to an end. However, it must be noted that this is based on a 3 week follow up and longer term benefits cannot be claimed without further research. More research is also needed on gratitude diaries as a targeted intervention (Rash et al., 2011).

Appendix A Adapted CASP appraisal records

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| <p>Title: Understanding the experiences of school belonging amongst secondary school students with refugee backgrounds</p> <p>Authors: Sobitan (2022)</p> | | |
| Was there a clear statement of the aims of the research? | Yes | The author's systematic literature review identified a need for further exploration of school belonging for refugee students in the UK. Research seeks to understand how these students experience belonging in the North East – a region with the highest number of refugees in the UK in proportion to population. |
| Is a qualitative methodology appropriate? | Yes | Qualitative methodology is appropriate as research is seeking views. |
| Was the research design appropriate to address the aims of the research? | Yes | Semi-structured interviews were used to gather pupils' views. Interview questions were developed based on previous research. |
| Are the study's theoretical underpinnings (e.g. ontological and epistemological assumptions; guiding theoretical framework(s)) clear, consistent and conceptually coherent? | Yes | The theoretical framework mentioned is the Bio-Psycho-Socio-Ecological model. Author adopted a critical realist approach and justified the use of IPA in relation to that epistemology. |
| Was the recruitment strategy appropriate to the aims of the research? | Yes | The aim of the research was to hear views of students with refugee backgrounds and recruitment was done through a local authority organisation that supports refugee families with education. |
| Was the data collected in a way that addressed the research issue? | Yes | Semi structured interviews were used and questions based on the research question. |

Appendix A

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| Has the relationship between researcher and participants been adequately considered? | Yes | The author acknowledges his own background and how that could impact. He reflects on being able to occupy the space between the insider and outsider role. |
| Have ethical issues been taken into consideration? | Yes | Author sought assent from students as well as obtaining written consent from parents. He also engaged in discussions about research. A copy of the interview questions were given to parents and participants were not asked to relive traumatic experiences. |
| Was the data analysis sufficiently rigorous? | Yes | Used IPA methodology and explained the stages in the article. Before the interviews the author explored different terms with participants that could describe sense of belonging, in order that there was a shared understanding. |
| Is there a clear statement of findings? | Yes | Findings are clearly explained under the headings of the four themes. |
| Is the research valuable? | Yes | It was carried out with young people who had parents who were refugees or were refugees themselves so offers insight into how sense of belonging might be experienced by this group of young people and how this may be similar or different from other young people. |
| Comments: This research offers a unique insight into sense of school belonging as it is experienced by students with a refugee background with the backdrop of the covid pandemic. | | |

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| <p>Title: ‘These people are my people and they care about me’: the perspectives of alternative high school graduates on school belonging</p> <p>Author: Barrett (2021) Unpublished thesis</p> | | |
| Was there a clear statement of the aims of the research? | Yes | The research aims to explore how students that graduated from alternative high schools compared |

Appendix A

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| | | their experiences of belonging to their former traditional high school. |
| Is a qualitative methodology appropriate? | Yes | This research sought the views of young people who graduated from alternative high schools so a qualitative methodology was appropriate. |
| Was the research design appropriate to address the aims of the research? | Yes | This was a qualitative design as the researcher wanted to know how graduates of an alternative provision experienced a sense of school belonging. |
| Are the study's theoretical underpinnings (e.g. ontological and epistemological assumptions; guiding theoretical framework(s)) clear, consistent and conceptually coherent? | Yes | The theoretical framework used is 'communities of practice'; The study uses a sociological lens to analyse how belonging or unbelonging is generated in and through relational interactions in the classroom and school buildings. A constructivist perspective is held by the researcher. |
| Was the recruitment strategy appropriate to the aims of the research? | Yes | Recruitment was from an alternative provision and participants were recent graduates. Purposive sampling was used to ensure diversity. |
| Was the data collected in a way that addressed the research issue? | Yes | Semi-structured response interviews were conducted, recorded and transcribed, then coded using NVivo. |
| Has the relationship between researcher and participants been adequately considered? | Yes | The author comments on the power dynamic between researcher and participant and the importance of sensitivity to this. The researcher recognises the reciprocal nature of the interactions between the researcher and participant. |
| Have ethical issues been taken into consideration? | Yes | The researcher acknowledges the power dynamic between researcher and participant and her own biases, which have been affected by her culture. Responsive interviewing was used to establish trust and warmth. |

Appendix A

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| Was the data analysis sufficiently rigorous? | Yes | The researcher used memoing, two rounds of open coding, used Braun and Clarke's (2006) thematic analysis to develop codes and themes and discussed these with peers. |
| Is there a clear statement of findings? | Yes | There were four main themes identified. Participants' experiences of their previous schools were characterised by non-participation and interactions that led them to feel marginalised, whereas their alternative provision provided them with interactions that were more positive, as well as shifting outlook that gave them hope. |
| Is the research valuable? | Yes | This adds to the literature on school belonging by adding the perspective of students who have experienced alternative provision, an area that is under researched, and adds to the breadth of research. |
| Comments: This actually involved some older participants than the scope of the systematic literature review inclusion criteria, although the mean age was 19, but was focused on their time in a secondary school alternative provision, so it was included. | | |

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| <p>Title: The lived experience of school belonging: a phenomenological study of middle school students with emotional and/or behavioural disorders</p> <p>Author: Lapinski (2019) Unpublished thesis</p> | | |
| Was there a clear statement of the aims of the research? | Yes | The aim was to understand the lived experiences of belonging for middle school students with emotional and behavioural disorders. |
| Is a qualitative methodology appropriate? | Yes | As the researcher wanted to capture students' perspectives, a qualitative methodology was appropriate. |

Appendix A

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| Was the research design appropriate to address the aims of the research? | Yes | A qualitative design was used where semi-structured interviews were conducted to find out about participants' lived experiences of belonging. |
| Are the study's theoretical underpinnings (e.g. ontological and epistemological assumptions; guiding theoretical framework(s)) clear, consistent and conceptually coherent? | Yes | A relational approach to belonging was adopted to focus the exploration, with the bidirectional connections between an individual and their environment being considered. A generative model of belonging was created based on the literature review |
| Was the recruitment strategy appropriate to the aims of the research? | Yes | Purposive sampling was used with two middle schools with provision for students with emotional and behavioural difficulties. The researcher wanted an equal number of those with behavioural difficulties and those with emotional difficulties and an equal number of girls and boys. |
| Was the data collected in a way that addressed the research issue? | Yes | Four semi-structured interviews were conducted with each of the 10 participants. |
| Has the relationship between researcher and participants been adequately considered? | Yes | The researcher acknowledges their own interpretations of belonging and how this may have influenced their interpretation of what the participants were saying. |
| Have ethical issues been taken into consideration? | Yes | The researcher commented on the importance of quiet spaces for interviews and ensuring participants and the school were happy with the times of the interviews. |
| Was the data analysis sufficiently rigorous? | Yes | Interpretative phenomenological analysis (IPA) was used and the steps are referred to in detail in the paper. |
| Is there a clear statement of findings? | Yes | Findings are presented in relation to the research questions. |

Appendix A

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| Is the research valuable? | Yes | This study adds to the breadth of research on school belonging as it gives the perspective of students with emotional and behavioural difficulties, which is an underrepresented group in the literature on school belonging. |
| Comments: This was a valuable piece of research, not only because it was of high quality, but because it focused on young people that were receiving support for special educational needs relating to emotional and behavioural difficulties. | | |

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| <p>Title: Somali, Latino and Hmong Youth Perceptions of School Connectedness</p> <p>Authors: Wilhelm et al. (2022)</p> | | |
| Was there a clear statement of the aims of the research? | Yes | This is community based participatory research that aims to highlight Somali, Latino and Hmong experiences in a Midwestern city in the US. It aims to inform reforms aimed at building connectedness among diverse populations of immigrant youth. |
| Is a qualitative methodology appropriate? | Yes | The authors wanted to gather views of Somali, Latino and Hmong young people so qualitative methodology is appropriate. |
| Was the research design appropriate to address the aims of the research? | Yes | Semi-structured focus groups were used and students organised according to their ethnicity. It is not clear why focus groups were used and not individual interviews. |
| Are the study's theoretical underpinnings (e.g. ontological and epistemological assumptions; guiding theoretical framework(s)) clear, consistent and conceptually coherent? | Partly | <p>Questions were based on three domains but it is not clear what the theoretical framework was that those domains were based on.</p> <p>Content-driven immersion-crystallisation thematic method was used.</p> |

Appendix A

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| Was the recruitment strategy appropriate to the aims of the research? | Yes | Researchers collaborated with community agencies and schools in order to reach the target population. Flyers were sent out and word of mouth used. |
| Was the data collected in a way that addressed the research issue? | Yes | Semi-structured focus groups were audio recorded and transcribed. |
| Has the relationship between researcher and participants been adequately considered? | Yes | As they used a community-based participatory research approach, there was a member of the same community as the students involved in the focus group and in the analysis. |
| Have ethical issues been taken into consideration? | Yes | Researchers sought youth assent as well as parental consent. |
| Was the data analysis sufficiently rigorous? | Yes | The whole team reviewed the codes before applying to the transcripts and discussed themes. A subset of team members drafted analytic summaries and reviewed them with the larger team to achieve consensus. |
| Is there a clear statement of findings? | Yes | Findings are clearly presented and related to findings from previous research. |
| Is the research valuable? | Yes | The sample is of a diverse group of immigrant youth so it gives another perspective other than that of a white, western population. |
| <p>Comments: This was an interesting study as the researchers were members of the communities that they were researching and could offer their perspective to the research. They were also bilingual which takes away the barriers due to participants' fluency in English language.</p> | | |

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| <p>Title: Subdimensions of Adolescent Belonging in High School</p> <p>Authors: LeBaron Wallace, Ye and Chhuon (2012)</p> | | |
| Was there a clear statement of the aims of the research? | Yes | They clearly state two aims: to utilise existing theory to identify sense of belonging subdimensions and utilise adolescent interpretations as a bridge |

Appendix A

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| | | between the conceptual and empirical expressions of the subdimensions. |
| Is a qualitative methodology appropriate? | Yes | They were interested in adolescents' interpretations of the relationships with school based adults and their experiences of school so a qualitative methodology was appropriate. |
| Was the research design appropriate to address the aims of the research? | Yes | This was a mixed methods design. Phase 2 of the study was a factor analytic investigation of the sense of belonging subdimensions hypothesised to exist based on Phase 1 – the qualitative aspect of the design. Semi-structured focus groups were used and the authors gave a justification for focus groups rather than individual interviews. |
| Are the study's theoretical underpinnings (e.g. ontological and epistemological assumptions; guiding theoretical framework(s)) clear, consistent and conceptually coherent? | Yes | The authors state a constructivist epistemological position. It is stated in the study's aims that they seek to apply theory to the creation of subdimensions of school belonging. Three models were used to guide the study and were applied to the transcripts from the focus groups. |
| Was the recruitment strategy appropriate to the aims of the research? | Yes | Students were recruited from youth development programmes in urban areas from three states in the US. |
| Was the data collected in a way that addressed the research issue? | Yes | Focus groups were utilised due to the interaction of the discussion, which the researchers felt made the data richer. |
| Has the relationship between researcher and participants been adequately considered? | Partly | The background of researchers as teachers was mentioned in the study. |
| Have ethical issues been taken into consideration? | Partly | It is mentioned that hands-on activities were used to help students feel more comfortable. |

Appendix A

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| Was the data analysis sufficiently rigorous? | Yes | There was a two-step coding process. The first was a holistic coding approach followed by a second step where three models were applied to the data collected. |
| Is there a clear statement of findings? | Yes | Findings are presented that related to three themes: self-presentational strategies, discussions of classroom based experiences and references to experiences within non-instructional spaces. There was also a subset of data that did not fit into the themes and was named adolescent perceptions of being known by a teacher. |
| Is the research valuable? | Yes | It was an interesting study because the qualitative data was used to quantitatively define subdimensions of belonging. |
| Comments: Researchers in this study made their epistemological position clear, as well as their backgrounds as teachers and acknowledged the relationship between researcher and participant. | | |

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| Title: 'How Do I Know That I Belong?' Exploring Secondary Aged Pupils' Views on What It Means to Belong to Their School | | |
| Author: Shaw (2019) | | |
| Was there a clear statement of the aims of the research? | Yes | The aim of the research was to explore secondary school pupil's perceptions of school belonging. |
| Is a qualitative methodology appropriate? | Yes | The researcher was interested in students' perceptions so qualitative methodology was appropriate. |
| Was the research design appropriate to address the aims of the research? | Yes | This was a mixed methods study involving the Psychological Sense of School Membership scale and semi-structured interviews in small groups. |
| Are the study's theoretical underpinnings (e.g. ontological and | Partly | The author does not explicitly state their epistemological position but references Braun and Clarke's (2006) thematic analysis as being |

Appendix A

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| epistemological assumptions; guiding theoretical framework(s)) clear, consistent and conceptually coherent? | | appropriate as it is not tied to any one epistemological position. |
| Was the recruitment strategy appropriate to the aims of the research? | Yes | Two 'average sized' non-selective maintained schools in London were recruited to represent the views of secondary pupils in the UK. These schools represented the ethnic diversity and socioeconomic status of the population in their local authorities. |
| Was the data collected in a way that addressed the research issue? | Yes | Group interviews were used rather than individual interviews and it was not clear why that was, although the researcher mentioned that interviews were done in tutor groups to provide familiarity. A mixture of closed and open ended questions was used and these questions were adapted from those used in previous studies. |
| Has the relationship between researcher and participants been adequately considered? | No | The relationship between researcher and participants isn't mentioned. |
| Have ethical issues been taken into consideration? | Yes | Information was given to pupils and parents and consent was sought from both pupils and parents. Pupils were told at the beginning of the interviews that they were free to withdraw at any time. |
| Was the data analysis sufficiently rigorous? | Yes | Codes were generated and checked with members of the educational psychology team. Codes were then combined into themes and relationships between codes, themes and sub-themes considered. A thematic map was produced illustrating these themes and relationships between them. |
| Is there a clear statement of findings? | Yes | The themes were clearly discussed and a model of school belonging developed as a result of the |

Appendix A

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| | | findings. Findings were related to findings of previous studies. |
| Is the research valuable? | Yes | It adds to the literature on school belonging and uses pupil voice to do this. The research was also done in the UK and there is little research into pupils' views of school belonging carried out in the UK. |
| <p>Comments: The author's epistemological position is not clear in this paper and the relationship between researcher and participant isn't mentioned, which is surprising as the researcher is in a position of power. It would have been interesting to see more comments by young people used to illustrate each theme.</p> | | |

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| <p>Title: Experiences of school belonging for young children with refugee backgrounds</p> <p>Authors: Due, C., Riggs, D.W., & Augoustinos, M. (2016)</p> | | |
| Was there a clear statement of the aims of the research? | Yes | Researchers were addressing the lack of research exploring school belonging in younger children (under 13) with refugee backgrounds. |
| Is a qualitative methodology appropriate? | Yes | Researchers wanted to find out about the experiences of school belonging for children under 13 who had recently arrived in Australia as refugees, therefore a qualitative methodology was appropriate. |
| Was the research design appropriate to address the aims of the research? | Yes | The authors give a rationale for using thematic analysis, although they do not go into detail. Photo elicitation is mentioned in relation to being participant-centred and seems appropriate due to the age of the participants and their early stages of English language development, although this justification is not made by the authors. |
| Are the study's theoretical underpinnings (e.g. ontological and | Partly | The researchers do not explicitly state their ontological or epistemological position. The theoretical framework is the domains of school |

Appendix A

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| epistemological assumptions; guiding theoretical framework(s)) clear, consistent and conceptually coherent? | | belonging found in previous research. Braun and Clarke's (2013) thematic analysis is referred to. |
| Was the recruitment strategy appropriate to the aims of the research? | Yes | Participants were recruited from Intensive English Language Centres in South Australia, were all from refugee backgrounds and were between 5 and 13. |
| Was the data collected in a way that addressed the research issue? | Yes | A methodology was used where participants took photographs that represented their experiences of school and then they were asked about the photographs in a focus group or interview. |
| Has the relationship between researcher and participants been adequately considered? | No | Although it is mentioned that the first author built rapport with the participants before the study began and obtained consent, the influence of the researcher on the participants in terms of questions that were asked in interview or how the researcher interpreted their responses is not considered. |
| Have ethical issues been taken into consideration? | Yes | The authors recognise the vulnerability of the participants in the paper and comment on the need for ongoing assent from participants as well as informed consent from parents and carers. The first author spent a term at each school, building rapport, telling participants about the aims of the study and gaining ongoing assent. They comment on the decision by teachers to not send home information sheets and consent forms for two potential participants due to high levels of trauma. |
| Was the data analysis sufficiently rigorous? | Yes | They refer to the six stages of Braun and Clarke's (2013) thematic analysis and explain that the analysis is deductive, based on the domains of school belonging found in previous research. |
| Is there a clear statement of findings? | Yes | The authors found that it was important for children to see refugee experiences highlighted in school, in |

Appendix A

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| | | order for them to feel a sense of school belonging. The importance of spaces and teacher-student relationships were also referred to in the findings. |
| Is the research valuable? | Yes | It provides the perspective of younger children, which is a population of refugees that is under-represented in the literature. |
| Comments: Although there are drawbacks of using photo-elicitation, it is an interesting approach to seeking the views of refugee children that may not be fluent in English. | | |

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| Title: Connecting to school: exploring student and staff understandings of connectedness to school and the factors associated with this process | | |
| Authors: Gowing and Jackson (2016) | | |
| Was there a clear statement of the aims of the research? | Yes | This research sought to address a gap in the literature by exploring the meaning of school connectedness from pupil and teacher perspectives. |
| Is a qualitative methodology appropriate? | Yes | Qualitative data enabled the exploration of meanings of school connectedness. |
| Was the research design appropriate to address the aims of the research? | Yes | This was a mixed methods design. The qualitative data allowed for participants to express what school connectedness meant to them and the quantitative data allowed researchers to discover the factors associated with it. |
| Are the study's theoretical underpinnings (e.g. ontological and epistemological assumptions; guiding theoretical framework(s)) clear, consistent and conceptually coherent? | Partly | Inductive thematic analysis was mentioned but no ontological or epistemological assumptions. |

Appendix A

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| Was the recruitment strategy appropriate to the aims of the research? | Yes | Participants were recruited from a secondary school and randomly assigned to a questionnaire or focus group. Participants volunteered if they wanted to keep a diary. |
| Was the data collected in a way that addressed the research issue? | Yes | Questions in the focus group, as well as open-ended questions on the questionnaire were based on the aims of the research. Diary entries were analysed based on the research question. |
| Has the relationship between researcher and participants been adequately considered? | No | The relationship between researcher and participant was not mentioned in terms of focus groups, weekly diary meetings or in relation to the analysis. |
| Have ethical issues been taken into consideration? | Yes | Participant consent was sought as well as parental consent. Those who completed the diaries met with the researcher every week to check wellbeing. |
| Was the data analysis sufficiently rigorous? | Cannot tell | The six step process of Braun and Clarke's thematic analysis is reported to have been followed. It is not clear whether one researcher did the analysis or whether it was done jointly etc. |
| Is there a clear statement of findings? | Yes | The authors relate their findings to those found in the literature, as well as suggesting new insights into how students understand school connectedness. |
| Is the research valuable? | Yes | It adds to the literature on student views of school belonging. |
| <p>Comments: The relationship between researcher and participant is not mentioned, which is surprising given the assumed power dynamic. However, researchers did check on participants' wellbeing, which differs from the other studies.</p> | | |

Title: Another path to belonging: a case study of middle school students' perspectives
Authors: Green, Emery, Sanders & Anderman (2016)

Appendix A

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| Was there a clear statement of the aims of the research? | Yes | Researchers wanted to extend current accounts of school belonging by carrying out research in the context of a secondary school with high academic standards. |
| Is a qualitative methodology appropriate? | Yes | The research was concerned with students' views about the factors that contribute to their sense of belonging and capture a full picture of students' lived experiences so qualitative methodology was appropriate. |
| Was the research design appropriate to address the aims of the research? | Yes | Interviews were conducted as part of a larger, longitudinal, mixed methods study. Interviews were semi-structured and participants were interviewed three times over a year. |
| Are the study's theoretical underpinnings (e.g. ontological and epistemological assumptions; guiding theoretical framework(s)) clear, consistent and conceptually coherent? | Partly | The three factor framework that guided the deductive analysis is clearly described, although ontological and epistemological assumptions are not explicitly stated. |
| Was the recruitment strategy appropriate to the aims of the research? | Yes | Participants were selected from a pool of 76 that responded to an online survey and were chosen because they represented the heterogeneity of the schools' population and could share both positive and negative experiences. Participants were drawn from three year groups in a STEM school. |
| Was the data collected in a way that addressed the research issue? | Yes | Interviews were conducted over three terms, audio recorded and coded based on the three factor model of belonging. |
| Has the relationship between researcher and participants been adequately considered? | No | It is not mentioned in the paper. |

Appendix A

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| Have ethical issues been taken into consideration? | No | Ethical issues are not mentioned, including whether the study received ethical approval. |
| Was the data analysis sufficiently rigorous? | Yes | Four members of the team met to draft provisional codes. A deductive approach was used where two codes (where this aspect was present and where it was lacking) were applied to each of the three factors of belonging identified in the literature. Two members then independently coded the entire set using the codes. They compared codes and reached a consensus. A third researcher then verified the conceptual accuracy by coding 10% of the data. |
| Is there a clear statement of findings? | Yes | The authors claim to have found two distinct aspects of sense of school belonging: academic and social, which have not previously been thought of as separate constructs. |
| Is the research valuable? | Yes | The research took place in a setting that promoted accelerated academic achievement and so adds a different context to the literature on sense of school belonging. This research distinguished between academic and social belonging. |
| Comments: This is a really interesting study because it is the only one that involves participants from a school that has very high academic expectations and differentiates between academic and social belonging. | | |

| | | |
|---|-----|---|
| Title: What promotes adolescents' sense of school belonging? Students and teachers' convergent and divergent views El Zaatari & Ibrahim (2021) | | |
| Was there a clear statement of the aims of the research? | Yes | The purpose of the study was to identify school climate factors and their influence on adolescent students' feelings of school belonging. |

Appendix A

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|---|----------|---|
| Is a qualitative methodology appropriate? | Yes | The research was interested in the views of teachers and students on the factors that influence sense of school belonging. |
| Was the research design appropriate to address the aims of the research? | Yes | This was a mixed methods design. The qualitative aspect of the design followed a quantitative phase and was used to explain the results of the quantitative phase. Semi-structured interviews were used. Questions were based on results from the survey. |
| Are the study's theoretical underpinnings (e.g. ontological and epistemological assumptions; guiding theoretical framework(s)) clear, consistent and conceptually coherent? | Yes | Theoretical framework was clear, e.g., Bronfenbrenner's ecological model. |
| Was the recruitment strategy appropriate to the aims of the research? | Not sure | Purposeful sampling was used to select students following the survey but exclusion/inclusion criteria is not clear. |
| Was the data collected in a way that addressed the research issue? | Yes | Interviews were carried out to explain the factors of school belonging identified from the quantitative phase of the study and find out what students felt contributed to their sense of school belonging. |
| Has the relationship between researcher and participants been adequately considered? | No | Not mentioned in the paper. |
| Have ethical issues been taken into consideration? | No | Not mentioned in the paper. |
| Was the data analysis sufficiently rigorous? | Yes | Thematic analysis was used to code data and identify themes. Two researchers coded separately and then shared their decisions and reached consensus. |

Appendix A

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| Is there a clear statement of findings? | Yes | They found that peer relationships and safety and school social practices were important for students' sense of school belonging. |
| Is the research valuable? | Yes | This study focused on sense of school belonging in the UAE, in which academic success, the authors suggest, may be valued above looking after students' social and emotional needs, so this adds to the breadth of literature on sense of school belonging. |
| Comments: In this study there is no discussion of ethical issues or the relationship between participant and researcher, which is surprising since the participants are adolescents, which suggests a power dynamic. | | |

| | | |
|--|-----|---|
| <p>Title: Constructing school belonging(s) in disadvantaged urban spaces: adolescents' experiences and narratives in Mexico City</p> <p>Authors: Saravi et al. (2020)</p> | | |
| Was there a clear statement of the aims of the research? | Yes | The aims were two-fold: to hear from adolescents from disadvantaged backgrounds and find out their views and experiences of school belonging as there is little research involving this population, and to add to the international debate on school belonging. |
| Is a qualitative methodology appropriate? | Yes | Authors were seeking the views of adolescents on aspects of school belonging so a qualitative methodology is appropriate. |
| Was the research design appropriate to address the aims of the research? | Yes | A qualitative design is justified by the authors as there is a lot more research using quantitative methodologies. |
| Are the study's theoretical underpinnings (e.g. ontological and epistemological | No | A sociological perspective is mentioned in the introduction but otherwise the ontological and epistemological underpinnings are not mentioned. |

Appendix A

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| assumptions; guiding theoretical framework(s) clear, consistent and conceptually coherent? | | |
| Was the recruitment strategy appropriate to the aims of the research? | Yes | Adolescents from two schools in deprived parts of Mexico City were recruited. |
| Was the data collected in a way that addressed the research issue? | Yes | Interviews and focus groups were conducted to discover adolescents' views. |
| Has the relationship between researcher and participants been adequately considered? | No | This is not mentioned. |
| Have ethical issues been taken into consideration? | Somewhat | Consent forms were completed by teachers, parents and the students themselves. No other ethical issues are mentioned. |
| Was the data analysis sufficiently rigorous? | Cannot tell | The paper mentions that thematic analysis was used to code transcripts but there is no mention of who did the analysis – if they were all coded by one author, whether they got together to check codes and jointly identify themes etc. Braun and Clarke are not mentioned. |
| Is there a clear statement of findings? | Yes | The authors discuss the different forms of belonging as well as the intermeshing of positive and negative aspects and suggest that schools could reflect on the different kinds of belonging they want to promote rather than developing standardised practices. |
| Is the research valuable? | Yes | The research comes from Latin America and is based on the experiences of disadvantaged youth, therefore adding to the research on school belonging which has predominantly been from white, western countries. |

Comments: The lack of clear methodology was a disappointing aspect of this paper. It was not clear how the themes had been reached.

| | | |
|---|--------|---|
| <p>Title: The social experiences and sense of belonging in adolescent females with Autism in mainstream school</p> <p>Authors: Myles, Boyle and Richards (2019)</p> | | |
| Was there a clear statement of the aims of the research? | Yes | The authors wanted to better understand the lived experience of adolescent females with autism at mainstream school by exploring factors that add to and take away from their sense of belonging. |
| Is a qualitative methodology appropriate? | Yes | Qualitative methodology is appropriate because the authors were interested in participants' understanding of sense of belonging and the impact that had on their social experiences at school. |
| Was the research design appropriate to address the aims of the research? | Yes | Semi structured interviews were used to obtain participants' perspectives. |
| Are the study's theoretical underpinnings (e.g. ontological and epistemological assumptions; guiding theoretical framework(s)) clear, consistent and conceptually coherent? | partly | Thematic analysis is mentioned, but not why it's appropriate to the epistemology. Ontology and epistemology aren't mentioned. |
| Was the recruitment strategy appropriate to the aims of the research? | Yes | SENCOs at mainstream secondary schools were approached to take part and pass details of the research to their female pupils with autism. |
| Was the data collected in a way that addressed the research issue? | Yes | Semi-structured interviews were used and the questions were based on themes identified in the literature as well as the dimensions of belonging (Hagerty et al., 1992). Participants completed a |

Appendix A

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| | | 'feelings of belonging sheet' after the first interview and this was discussed in the second interview. |
| Has the relationship between researcher and participants been adequately considered? | Partly | The authors commented that two interviews were carried out to build rapport and trust but did not go into more detail. |
| Have ethical issues been taken into consideration? | partly | Although it is mentioned that the study received ethical approval, no more ethical considerations are reported. |
| Was the data analysis sufficiently rigorous? | Cannot tell | Thematic analysis was used to analyse the data but it is not mentioned whether codes and themes were reviewed as a research team or whether one author analysed all the data. The stages of TA aren't mentioned. |
| Is there a clear statement of findings? | Yes | Each theme is summarised in the discussion. |
| Is the research valuable? | Yes | It gives an insight into the factors that help and hinder sense of school belonging among adolescent females with autism - a population that is under-researched – and adds to the wider literature on sense of school belonging. |
| <p>Comments: In this study, the ontology and epistemology aren't clear and there isn't a lot of detail about the analysis. Additionally, ethical considerations aren't mentioned in detail, which is surprising considering the participants were children with Autism.</p> | | |

Appendix B Thematic synthesis – participant characteristics

| Study number | Author and date | Number of participants | Age | Gender | Other relevant information |
|--------------|-----------------|------------------------|-------|-------------------------------------|---|
| 1 | Sobitan (2022) | 7 | 11-16 | 4 males, 3 females | Although ethnicity was not reported, all participants had refugee or asylum seeker status or had parents that were refugees or asylum-seekers. |
| 2 | Barrett (2021) | 8 | 18-21 | 2 males, 4 females and 2 non-binary | 2 participants identified as white, 1 Asian, 1 Black or African American, 1 American Indian or Alaska Native; Hispanic or Latinx, 1 Asian; Hispanic or Latinx; Native Hawaiian or Other Pacific Islander; Multiracial, 1 Latinx Chicano, and 1 White; Multiracial. They had all graduated from one of five alternative high schools. |
| 3 | Lapinsky (2019) | 10 | 13-16 | 5 male, 5 female | Students all either had emotional difficulties, behavioural difficulties or both, and were recruited from two middle schools where they were receiving support for these difficulties. Ethnicity of participants was not mentioned, although one middle school's demographic was described as predominantly white and the other was 70% white, 10% Asian, 10% African American and 10% Hispanic. |

Appendix B

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| 4 | Wilhelm et al. (2022) | 71 | 13-18 | 46% male, 49% female and 3% unknown | 20 participants were Somali, 25 were Hmong and 26 were Latino. Participants were from a public middle or high school or were former students of one of these schools during the previous academic year. |
| 5 | Wallace, Ye and Chhuon (2012) | Phase 1: qualitative study - 72 (10 focus groups) | 14-20 | Site 1: 67.6% male, 32.4% female. Site 2: 100% male, 0% female. Site 3: 54.6% male, 45.4% female. | Participants were recruited from youth development programmes across three sites (Pittsburgh, Minneapolis and Los Angeles). Site 1: 73% Black/African American, 16.2% White/European American, 2.7% American Indian, 8.1% Multiracial. Site 2: 23.1% Black/African American, 7.7% White/European American, 15.4% Asian American, 15.4% American Indian, 38.4% Latino. Site 3: 4.6% White/European American, 45.4% Asian American, 31.8% Multiracial, 18.2% Latino. |
| 6 | Shaw (2019) | 184 | Year 7-10 (11 to 15 years) | 93 male, 91 female | Participants were recruited from two schools in London and focus groups were conducted in tutor groups. Ethnicity of participants was not mentioned. |

Appendix B

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|----|-------------------------------|----------------------------------|--------------------------|----------------------|---|
| 7 | Due et al. (2016) | 15 | 5-13 | 7 male, 8 female | All children were from refugee backgrounds and came from eight different countries: the Democratic Republic of Congo, Iraq, Mongolia, Nepal, Pakistan, Papua New Guinea, Syria and Zambia. |
| 8 | Gowing and Jackson (2016) | 118 in student focus groups | Year 7 -12 (12-18 years) | 54 males, 64 females | All children were recruited from one coeducational secondary school in Australia. Participants' ethnicity was not reported. |
| 9 | Green et al. (2016) | 9 in qualitative aspect of study | 11-13 | 3 male, 6 female | Children were from one middle school in the Midwest, USA. 6 reported ethnicity as White, 1 Asian, 1 Black and 1 Multiracial. |
| 10 | El Zaatari and Ibrahim (2021) | 16 children in qualitative study | Grade 11 (16-17 years) | 8 male, 8 female | Participants were from two schools (a boys' school and a girls' school) in the United Arab Emirates. Although percentages of Emirati and Non-Emirati are given for the whole sample, ethnicity information is not given for the 16 children who took part in the qualitative aspect of the study. |
| 11 | Saravi et al. (2020) | 35 | 15-19 | 18 male, 17 female | Participants were from two schools in Mexico City. Ethnicity was not reported. |
| 12 | Myles et al. (2019) | 8 | 12-17 | All female | All participants had a formal diagnosis of Autism or Asperger Syndrome. They were recruited from three mainstream schools, one with an on-site autism base. No ethnicity information was reported. |

Appendix C Figures to show the thematic synthesis process

○ feeling judged x

<Files\\The Lived Experience of School> - § 2 references coded [0.02% Coverage]

Reference 1 - 0.01% Coverage

They also might feel like people are judging them and don't care about how they feel.

Reference 2 - 0.02% Coverage

One participant said that "teachers judge you based on what your sibling did."166 This judgement whether based on positive or negative actions or traits of their siblings routinely interfered with belonging.

<Files\\WallaceYeChhuon2012-Subdimensionsofadolescentbelonginginhighschool> - § 2 references coded [0.22% Coverage]

Reference 1 - 0.15% Coverage

Adolescents used the words judge or judgment frequently to describe experiences with adults. One youth explained that "... there's just some adults who make assumptions about you just for who you are, the crowd you hang in, and you might not be that kind of person at all"

Reference 2 - 0.07% Coverage

the cultural-historical context within which adolescents exist necessitates careful attention to things such as poverty and racism.

Figure 6 NVivo coding extract for code 'feeling judged'

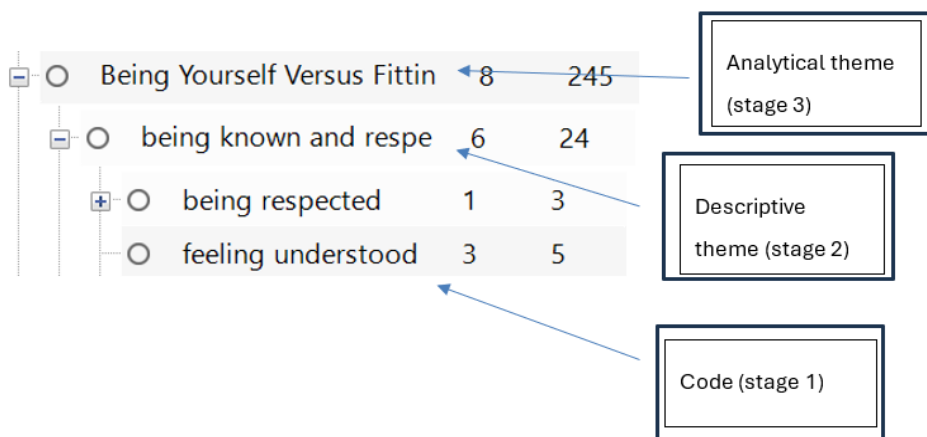


Figure 7 An example of the three stages of thematic synthesis

Appendix D Reflective log examples for systematic review

March 2024

I am still in the process of coding the data and have generated a large number of codes due to having two theses in the 12 studies. What I have noticed so far is that participants are mentioning relationships with their teachers frequently. In particular, they mention feeling like teachers care about them or don't care. This is communicated in the way that they check in on them as well as how much support they give them with their learning. How they are doing with learning also seems to affect how they feel about school and their sense of belonging to it. I am surprised that there has been so much focus on teachers so far rather than peers, but I wonder if that is due to one of the theses being focused on a group of students that attended an alternative provision, and another thesis that gathered the views of students with emotional and/or behavioural difficulties. It will be interesting to see if these codes can also be applied to the other studies and whether new codes are generated from subsequent studies that has a different demographic. I am aware that, as a former teacher, I may interpret what participants are saying differently from someone else that doesn't have my background. Therefore, I am being mindful of going back and forth between the codes and the data to check my interpretations and whether what the participants are saying could be interpreted differently. I am also going to be aware of this when I start grouping codes together and generating themes.

April 2024

I have met with my supervisors to discuss some of the themes that have been generated so far. It was useful to have the opportunity to talk about the descriptive themes that I have developed from grouping the codes together, as well as the analytical codes that I have generated to capture deeper meaning. It was helpful to talk about the process I had gone through and go back to the data to share quotes with them that I felt represented the themes. However, before supervision, I felt that my analytical themes were still too descriptive and they also shared this view. Therefore, I have started to go through the themes asking myself 'so what?', 'why is this important?' and 'what are the participants trying to say here?'. I feel that I have started to make some progress. For example, it's not the policies and procedures that are important for the participants, but the fact that they don't have a say over what they are, even though in some cases they are detrimental to sense of school belonging.

Appendix E Thematic synthesis – descriptive and analytical themes

| Analytical themes | Descriptive themes | Sobitan (2022) | Barrett (2021) | Lapinsky (2019) | Wilhelm et al. (2022) | Wallace, Ye and Chhuon (2012) | Shaw (2019) | Due et al. (2016) | Gowing and Jackson (2016) | Green et al. (2016) | El Zaatari and Ibrahim (2021) | Saravi et al. (2020) | Myles et al. (2019) |
|--|---------------------------------|----------------|----------------|-----------------|-----------------------|-------------------------------|-------------|-------------------|---------------------------|---------------------|-------------------------------|----------------------|---------------------|
| Being accepted for who you are | Being able to participate | | x | x | x | | x | | | | | | |
| | Importance of identity | | x | x | | x | x | | | | | | |
| Subtheme: Discrimination | Being marginalised | | x | x | x | x | | | | | | | |
| | Feeling different | x | x | x | | | | | | | | | |
| Subtheme: Being yourself versus fitting in | Trying to be like everyone else | | x | x | | x | | | | | | | x |

Appendix E

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| | | | | | | | | | | | | | |
| | Being known and respected | x | x | x | | x | x | x | | | | | |
| | Role of the individual | | x | x | | | x | x | | | | | |
| Wanting to learn but not feeling able to | Impact of falling behind | x | x | x | x | | | | | | | x | |
| | Academic expectations | | x | x | x | | x | x | | x | | | |
| Subtheme: The way the curriculum is designed hinders belonging | Rigidity of curriculum | | x | x | | | | | | | x | x | |
| Subtheme: Needing | Support from teachers | x | x | x | x | x | | | | | | x | |

Appendix E

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| support with learning | | | | | | | | | | | | | |
| Feeling cared for (or not) | Building relationships | | | x | x | | x | | x | | | | |
| | Parent support | | | | | | x | | | | X | | |
| Subtheme: relationships with teachers | Being fair | | | x | x | x | | | | | x | x | |
| | Being understood | x | x | x | | x | | | | | | x | x |
| | Influence wider belonging | X | x | x | | | x | | | | | | x |
| | Negative teacher experiences | x | x | x | x | x | | | | | x | x | x |
| | Personality | | x | x | x | | | | | | x | x | |
| | Respect | | | x | | x | x | | | | x | x | |

Appendix E

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|--|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| | Teacher support with learning | x | x | x | x | x | | | | x | x | x | |
| | Teachers who care | | x | x | x | x | x | | | x | x | x | x |
| | Trust | x | x | x | | | x | | | | X | x | |
| Subtheme: relationships with peers | Friendship | | x | x | | x | x | | x | | x | x | x |
| | Importance of being in a group | x | | x | | | x | | | | | | x |
| | Opportunities for interactions | | x | x | | x | | | x | x | | | x |
| | Peer acceptance | | x | x | | | | | | | x | x | x |
| | Peers with shared experiences, | x | x | x | | | | x | | | | | x |

Appendix E

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| | values or background | | | | | | | | | | | | |
| How to connect (or not) to school | Forced or fluid belonging | | | x | | | x | x | | x | | x | |
| Subtheme: feeling like you could participate | Opportunities for involvement in school life | x | x | x | | x | x | x | x | | x | | x |
| | Physical environment and resources | | x | x | | | x | | | | | x | |
| Subtheme: having a say | Policies, rules and routines | x | x | x | | x | x | x | | | x | x | |

Appendix E

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|---|--|---|---|---|--|--|---|---|---|--|---|---|---|
| over the systems and policies that affect you | | | | | | | | | | | | | |
| | Importance of an inclusive environment | | x | x | | | x | x | | | | x | |
| | Safety | x | x | x | | | | | | | x | | x |
| Belonging changes over time and space | Belonging somewhere | | | x | | | | | | | | | |
| | Importance of physical environment | | | x | | | | | | | | | |
| | Looking to the future | | x | x | | | x | | x | | | | |

Appendix F Ethics application

ERGO II Ethics application form – Psychology Committee

1. Applicant Details

| | |
|--|------------------------------------|
| 1.1 Applicant name | Rachael Young |
| 1.2 Supervisor | Colin Woodcock, Catherine Brignell |
| 1.3 Other researchers / collaborators (if applicable): Name, address, email | |

2. Study Details

| | |
|--|---|
| 2.1 Title of study | The effect of teacher participation in a gratitude diary intervention on children's gratitude and sense of school belonging |
| 2.2 Type of project (e.g. undergraduate, Masters, Doctorate, staff) | Doctorate |

2.3 Briefly describe the rationale for carrying out this project and its specific aims and objectives.

Gratitude is a state of thankfulness and/or appreciation (Sansone and Sansone, 2010). The concept of gratitude has its roots in positive psychology with the idea that positive emotions contribute to wellbeing (Seligman et al. 2005). Gratitude is associated with a wide variety of factors related to wellbeing, positive emotions and

optimism (Hill and Allemand, 2011; McCullough, Emmons and Tsang, 2002). Gratitude has also been found to affect feelings of connectedness (Froh, Bono and Emmons, 2010). Gratitude is hypothesised to foster a positive bias towards interpreting help as more beneficial and people's behaviour as more altruistic (Wood et al., 2010), as well as making it more likely that that altruistic behaviour will be reciprocated (Nelson et al., 2013). Research has also found that simple intentional activities can be more effective in promoting wellbeing than striving to change circumstances (Sheldon and Lyubormirsky, 2006). Gratitude diaries, where participants record small events during the day or week that they are grateful for has been shown to lead to increased wellbeing compared to recording neutral events (Emmons and McCullough, 2003). Gratitude diary research with children has indicated that children's sense of school belonging (SoSB) is increased when keeping a daily record of school-based gratitude compared to when they record neutral events (Diebel et al., 2016).

Gordon et al. (2004) suggest that teachers help children construct a sense of belonging. However, to date, no research has looked at the importance of involving both teachers and pupils in keeping a gratitude diary. Liauw et al. (2018) suggest that the role of teachers in supporting gratitude is crucial because they create a classroom environment that relates to students' positive interactions with others. This study aims to address whether teachers completing their own gratitude diary alongside their pupils will increase children's gratitude and sense of belonging more than those completing a gratitude diary without teacher participation, as well as adding to the research base that shows gratitude and SoSB is increased through recording of gratitude compared to recording of neutral events.

2.4 Provide a brief outline of the basic study design. Outline what approach is being used and why.

Independent variables: 2 - diary condition and teacher involvement

| | Type of diary | |
|------------------------|------------------------------|---------------------------------|
| Teacher involvement | <i>Events diary</i> | <i>Gratitude diary</i> |
| <i>With teacher</i> | Events diary with teacher | Gratitude diary with teacher |
| <i>Without teacher</i> | Events diary without teacher | Gratitude diary without teacher |

Dependent variables: 2 – measure of gratitude (QUAY) and school belonging (SoSB). This will only be measured in children due to the small number of teacher participants. Teachers will be considered covariates.

This 2x2 design is being used so that the effect of both diary condition and teacher involvement can be measured separately and to allow the hypothesis that there is an interaction effect between condition and teacher involvement to be tested.

2.5 What are the key research question(s)? Specify hypotheses if applicable.

1. Research question: how does teacher involvement in a gratitude diary intervention impact on children's gratitude and sense of school belonging?

Hypothesis 1: There will be an interaction effect. Children who keep a gratitude diary with teacher involvement will show the greatest improvements in Gratitude and SoSB in comparison to the control conditions

Hypothesis 2: Children who keep gratitude diaries will show greater improvements in Gratitude and SoSB than those who keep neutral diaries

Hypothesis 3: Children who keep diaries with teacher involvement will show greater improvements in SoSB than those who keep them without teacher involvement.

3. Sample and setting

3.1 Who are the proposed participants and where are they from (e.g. fellow students, club members)? List inclusion / exclusion criteria if applicable.

The intention is to recruit 16 classes in the Key Stage 2 age range (i.e., Years 3 through to 6) from junior and/or primary schools, approximating to around 500 pupils in total. These classes will be assigned to the four conditions so that there are four classes in each condition. Depending on how successful recruitment is, the number of classes per condition might vary slightly from this

3.2. How will the participants be identified and approached? Provide an indication of your sample size. If participants are under the responsibility of others (e.g., parents/carers, teachers) state if you have permission or how you will obtain permission from the third party).

I will approach junior and primary schools by emailing the headteacher (see 'email to headteacher').

If the head teacher of a school approached consents to involvement, I will forward them a letter to send to parents (see attached document 'parent information sheet') which briefly outlines the study and the four conditions (gratitude diaries with teacher, gratitude diaries without teacher, neutral events diaries with teacher and neutral events diaries without teacher, which includes an opt-out consent form to return to the school if they do not want their child to take part in the study.

The intention is to recruit approximately 500 participants based on a power calculation with an effect size of 0.15, power of 0.8, 3 degrees of freedom and 16 covariates (due to having 16 teachers).

3.3 Describe the relationship between researcher and sample. Describe any relationship e.g., teacher, friend, boss, clinician, etc.

I may approach a school that I have previously worked at, in which case I would have a relationship with the head as a former employee and with teaching staff as a former colleague. The only children that would know me would be year 6 pupils.

It is possible that other schools approached might be known to me or to one of my supervisors through educational psychology work undertaken at that school (either by myself on placement in the local authority in which the school is situated or by my supervisor through their own link educational psychology work).

3.4 How will you obtain the consent of participants? (please upload a copy of the consent form if obtaining written consent) NB A separate consent form is not needed for online surveys where consent can be indicated by ticking/checking a consent box (normally at the end of the PIS). Other online study designs may still require a consent form or alternative procedure (for example, recorded verbal consent for online interviews).

Opt-out consent will be obtained from parents of children participating, with the following rationale:

- Head Teachers will be asked to give consent for this approach. Although some class teachers will be participating by recording their own neutral events or gratitude diary, no data will be collected from them, which means formal consent will not be sought from individual teachers. However, the head teacher will give their consent based on the commitment of teachers to the intervention.
- Diaries will be introduced to classes by class teachers (i.e., not by myself) and diary writing will be undertaken as part of normal class activity, thereby minimising contact for children with adults with whom they are unfamiliar.
- No harm is anticipated to come to participants as a result of the intervention.

- No identifiable data will be taken from the school site since data will be quasi-anonymised by the researcher on the school premises. Confidential information that links children's names to the unique ID codes used for data analysis will be kept securely at school and destroyed once the study is complete.

3.5 Is there any reason to believe participants may not be able to give full informed consent? If yes, what steps do you propose to take to safeguard their interests?

I will talk to headteachers about any concerns they might have about literacy levels of parents receiving the PIS sheet and consent form.

There are likely to be children with additional needs within the classes taking part in diary writing, however, since this activity will be part of their normal school day, I think it is sufficient for teachers to approach this by as they would when explaining any other learning task.

4. Research procedures, interventions and measurements

4.1 Give a brief account of the procedure as experienced by the participant. Make it clear who does what, how many times and in what order. Make clear the role of all assistants and collaborators. Make clear the total demands made on participants, including time and travel. Upload copies of questionnaires and interview schedules to ERGO.

I will visit the school and the teachers prior to beginning the intervention and explain the two questionnaires as well as the intervention itself (which will be either recording neutral events or gratitude with or without teacher involvement) at the end of every day for four weeks). I will explain to the teacher the expectation that they will complete a diary as well (if they are in the teacher involvement groups). Teachers will introduce their class diary writing task to children using the script provided ('script and guidance notes for teachers'). Teachers will be encouraged to share their diary entries (both neutral events and gratitude diaries) with the children in the class and make it clear that they are writing their entries at the same time as the children.

The expectation for classes participating in all four conditions is that this intervention will be done at the same time every day, near the end of the school day (although exact timings will not be given due to other factors such as assemblies).

The two questionnaires will be given to the teacher to hand out prior to the intervention (T1), on the last day of the intervention (T2) and again three weeks later (T3).

Children will write their names on the questionnaires and diaries, which will be cut off when they are taken away by me, leaving just a unique participant code. These codes will be entered onto a lookup sheet of children's names and classes that will be held securely in school (in two locations to mitigate against accidental deletion). The lookup sheet will also be used when I return to the school with the post-intervention questionnaires at T2 and T3 so that names can be added to these for distribution.

Children will then record up to three neutral events or up to three things they are grateful for that happened in school that day, depending on the group they are in, every school day for four weeks (20 days). At the end of the four weeks, I will return to school to hand out the post-intervention questionnaires (T2), thank staff and children, and take away diaries and questionnaires (after removing names) and making sure numbers written on them correspond to the correct child by using the sheets kept in school.

Three weeks later I will return with the questionnaires for T3 and teachers will once again give them out and collect them back in, I will add participant codes using the look up sheet and, once again, remove the names.

When this is completed, the lookup sheets will be shredded.

4.2 Will the procedure involve deception of any sort? If yes, what is your justification?

There. There will not be any deception as children will be told that not every class will be doing the same diary and it will be explained that some teachers have been asked to complete a diary (and the teachers will already be aware of the four conditions given in the information sheet to the head teacher). However, detail as to the reason for that will not be referred to. It will be explained to them what kind of diary they will be keeping. The reasons for the four conditions will be explained when I come in to do the follow up (T3), three weeks after the end of the intervention.

4.3. Detail any possible (psychological or physical) discomfort, inconvenience, or distress that participants may experience, including after the study, and what precautions will be taken to minimise these risks.

It's unlikely that participants will experience any psychological discomfort as they will either be recording neutral events or things they are grateful for. As the gratitude is school based, there is unlikely to be negative comparisons with others as their experiences will be generally shared. However, they may feel some discomfort due to writing and may find it onerous to write 20 diary entries or literacy could be a barrier. Therefore, the amount they have to complete will be minimal (just one line or sentence) and they can draw pictures if writing is a barrier for them.

4.4 Detail any possible (psychological or physical) discomfort, inconvenience, or distress that YOU as a researcher may experience, including after the study, and what precautions will be taken to minimise these risks. If the study involves lone working please state the risks and the procedures put in place to minimise these risks ([please refer to the lone working policy](#)).

I do not foresee any discomfort, inconvenience or distress as a result of this study.

4.5 Explain how you will care for any participants in ‘special groups’ e.g., those in a dependent relationship, are vulnerable or are lacking mental capacity), if applicable:

This will be done by the teacher as part of their normal practice.

4.6 Please give details of any payments or incentives being used to recruit participants, if applicable:

n/a

5. Access and storage of data

5.1 How will participant confidentiality be maintained? Confidentiality is defined as non-disclosure of research information except to another authorised person. Confidential information can be shared with those already party to it and may also be disclosed where the person providing the information provides explicit consent. Consider whether it is truly possible to maintain a participant’s involvement in the study confidential, e.g. can people observe the participant taking part in the study? How will data be anonymised to ensure participants’ confidentiality?

The data will be collected on paper through pre and post questionnaires, as well as the gratitude diaries themselves.

Before going to the school, printed diaries and measures will be organised into groups according to the classes being used. Individual ID numbers will be written on them plus a code to denote class grouping.

At the point of pre-intervention data collection, questionnaires will be handed out to children, who will be asked to add their names to their sheets.

Once questionnaires have been completed and collected, I will create a ‘look up’ sheet containing children's names, their corresponding ID numbers and class code. This document

will be stored in two locations at school (to mitigate against accidental deletion) and will not be removed from the school premises.

Once the look-up sheet has been created, children's names on the pre-intervention questionnaires will be cut off before leaving school with the materials. Thus, no identifying information will be taken from the school. The look-up sheet will also be used to add names to the diaries, which will be cut off when they are collected in at the end of the study. The look-up sheet will also be used when I return to the school with the post-intervention questionnaires so that names can be added to these for distribution (these will be cut off before leaving school with this data), as well as when I return three weeks later to administer the two questionnaires again for follow up.

Although the diaries will not be named, their contents will not be fully anonymised and there is a possibility that children will have named other children and teachers. However, the diaries will only be examined to ensure that a minimum number of 15 entries have been completed and that entries relate to the condition of either neutral event or gratitude depending on the condition that they have been assigned. The diaries will be stored securely in a locked cabinet and, once fidelity has been checked, will be destroyed.

If, when carrying out these checks, we find any information that causes concern about a child's wellbeing, this information will be passed on to the school and they will use this sheet to identify the child from the participant number and intervene as they consider appropriate.

I will have a spreadsheet, stored on a university laptop so that the ID numbers that relate to each class grouping or school can be stored but no identifiable information relating to the participants. SPSS will be used, on a university laptop, for analysis of the anonymised data from the pre and post questionnaires using the codes contained in the spreadsheet.

On return to school at the end of the study the look-up sheets (in both locations) I will be securely destroyed.

5.2 How will personal data and study results be stored securely during and after the study. Who will have access to these data?

During the study, the school will keep the identifiable data in two secure locations (the key will be kept by the headteacher or SENCo). I will have access to this data while I am on school premises. After leaving the school, I will have the anonymised data (as all names will have been removed from the diaries and questionnaires) and the sheets with the identifiable information will have been destroyed. The diaries will be stored securely in a locked cabinet and destroyed on completion of fidelity checks.

5.3 How will it be made clear to participants that they may withdraw consent to participate? Please note that anonymous data (e.g. anonymous questionnaires) cannot be withdrawn after they have been submitted. If there is a point up to which data can be withdrawn/destroyed e.g., up to interview data being transcribed please state this here.

It will be made clear to children that they are free to withdraw from the study at any point during the intervention and that, if they do not want their diary or questionnaires to be included in the study, they must withdraw within the four weeks of the study. After this time, the identifiable data will have been removed and it will not be possible to identify individual diaries or questionnaires.

6. Additional Ethical considerations

6.1 Are there any additional ethical considerations or other information you feel may be relevant to this study?

Appendix G The Belonging Scale

ERGO: 80736

Date created:15.09.23

Version:2

Gender (please circle one) : boy/ girl/ prefer not to say

| | | No, not true | Not sure | Yes, true |
|----------|--------------------------------------|--------------|----------|-----------|
| Practice | <i>I feel happy drawing pictures</i> | No | ? | Yes |

Thank you for completing these questions 😊

| | | | | |
|-----|---|----|---|-----|
| 1. | I feel really happy at my school | No | ? | Yes |
| 2. | People here notice when I'm good at something | No | ? | Yes |
| 3. | It is hard for people like me to feel happy here | No | ? | Yes |
| 4. | Most teachers at my school like me | No | ? | Yes |
| 5. | Sometimes I feel as if I shouldn't be at this school | No | ? | Yes |
| 6. | There is an adult in school I can talk to about my problems | No | ? | Yes |
| 7. | People at this school are friendly to me | No | ? | Yes |
| 8. | Teachers here don't like people like me | No | ? | Yes |
| 9. | I feel very different from most other kids here | No | ? | Yes |
| 10. | I wish I were in a different school | No | ? | Yes |
| 11. | I feel happy being at my school | No | ? | Yes |
| 12. | Other kids here like me the way I am | No | ? | Yes |

Appendix H The Questionnaire of Appreciation in Youth

ERGO:80736

Date created:15.09.23

Version:2

Gender (please circle one) : boy/ girl/ prefer not to say

| Questionnaire of Appreciation in Youth (QUAY) | | | | | | |
|---|---|-------|----------------|-----------|------------|--------|
| Instructions: Tick a box to say how often each sentence is true for you. | | | | | | |
| | | Never | Not very often | Sometimes | Very often | Always |
| 1 | I have lots of things in my life to be thankful for | | | | | |
| 2 | Small good things can happen, even on a bad day | | | | | |
| 3 | I am so lucky compared to some other children | | | | | |
| 4 | If someone does a kind thing for me, I will do something kind back | | | | | |
| 5 | I feel happy to have the life that I have | | | | | |
| 6 | I look around and feel amazed by the things I see | | | | | |
| 7 | Other people give up their time to help me | | | | | |
| 8 | Let's check you are still reading carefully. How often do you visit the moon? | | | | | |
| 9 | I think about good things that have happened to me in the past | | | | | |
| 10 | When something good is happening, I try to enjoy it as much as I can | | | | | |
| 11 | I like being thankful | | | | | |
| 12 | I feel happy if someone does a kind thing for me | | | | | |

Appendix I School Information Sheet

Date: 07.07.23 Version number:2

Study: The effect of teacher participation in a gratitude diary intervention on children's gratitude and sense of school belonging

Researcher: Rachael Young

ERGO number:80736

Your school is being invited to take part in the above research study. To help you decide whether you would like to take part or not, it is important that you understand why the research is being done and what it will involve. Please read the information below carefully and ask questions if anything is not clear or you would like more information before you decide to take part in this research. If you are happy for your school to participate you will be asked to sign a consent form.

What is the research about?

My name is Rachael Young and I am training to be an Educational Psychologist at the University of Southampton. This project is part of my Doctorate in Educational Psychology qualification.

I am interested in extending the research that has already been done in local schools on the effects of using gratitude diaries to improve children's overall gratitude and sense of school belonging. Some research has shown that children who record school-based gratitude every day over a few weeks have higher gratitude and a greater sense of school belonging than those who complete diaries about neutral events at school.

I am interested to find out whether having the class teacher do their own gratitude diary alongside their pupils affects pupils' gratitude and sense of school belonging. In order to investigate this, my study has four conditions: one where a teacher completes a gratitude diary alongside the pupils in their class each day, one where just the pupils complete a gratitude diary, one where a teacher completes a neutral events diary alongside their class and one where just the pupils complete a neutral events diary.

To measure gratitude before and after the study (to see if the intervention has made a difference), I will ask pupils to complete The Questionnaire for Appreciation in Youth (QUAY) by Smith et al. (2021) and to measure sense of school belonging before and after the study, I will ask pupils to complete The Belonging Scale, (Frederickson & Dunsmuir, 2009).

Why has my school been asked to participate?

Your school has been asked to participate because I am looking for teachers and children of junior school age to participate and I thought this would be an intervention that may be interesting to you. I am looking for approximately 500 children to participate in total.

What will happen to the children if they take part?

They will be asked to complete the two questionnaires mentioned above at the beginning of the study (which will take about 30 minutes) and then again at the end, four weeks later. The questionnaires will be read out by the class teacher and the children will be asked to circle their responses. They will also be asked to complete a diary every day for 4 school weeks involving 3 things that happened at school that day or 3 things they are grateful for that happened in school that day (this will take about 10 minutes per day).

Are there any benefits in my school taking part?

There are no direct benefits to your school, however this study will help our understanding of children's gratitude. This could be helpful to schools who are considering using gratitude interventions in the future.

Are there any risks involved?

This study does not involve any risks to the children, and all tasks they complete as part of the study will not differ greatly from tasks they would usually be given as part of a typical school day.

What data will be collected?

Data will be collected in the form of questionnaires and diaries. Children will be asked to write their names on the questionnaires and diaries. Once the children's questionnaires are completed, their names will be removed and replaced with a participant number, to ensure all data is anonymous. Similarly, children's names will be removed from their diaries. No analysis will be carried out until everything has been anonymised. . A sheet that links participant numbers to their names will be kept securely at the school and destroyed at the end of the study (once follow up measures are completed). The diaries will be checked to ensure that a minimum number of 15 entries have been completed as well as to ensure that the entries match the condition that classes have been assigned to. If we find any information that causes concern for a child, this information will be passed on to you and you will use this sheet to identify the child from the participant number.

Will my school's participation be confidential?

The information we collect about the children and school will be anonymised. Only members of the research team and responsible members of the University of Southampton may be given access to anonymised data collected for monitoring purposes and/or to carry out an audit of the study to ensure that the research is complying with applicable regulations. Individuals from regulatory authorities (people who check that we are carrying out the study correctly) may require access also to this data. All of these people have a duty to keep information strictly confidential (though there will be nothing identifying individual children or the school in this data). Participant numbers rather than names will be used in all the data analysis. You will be asked to keep a list of the children's names and corresponding participant numbers, so that a child's data can be removed from the study if requested by their parent/carer or if a child decides they do not want to take part (or to withdraw during the study). All paper documents (e.g. questionnaires) will be stored in a locked filing cabinet and will only be accessible by the researcher. Your school's name will not be used in any aspect of the study, including the write up. Your school will be assigned a number, which will not identify you. Any electronic data, (e.g. excel spreadsheets) will be stored on a secure, password protected laptop, and will only be accessible by the researcher and university research supervisors.

Does my school have to take part?

No, it is entirely up to you to decide whether or not to take part. If you decide you want to take part, you will need to sign and complete the attached consent form.

Consent from parents

A parent/carer information sheet will also be provided, giving parents/carers the option to opt their child out of the study using an opt-out consent form. I would like to use an 'opt-out' procedure for gaining consent from parents rather than an 'opt-in' procedure. It is important that you understand and give consent to this on the attached consent form. If you consent to this approach, I will send you a parent/carer information sheet about the study to send out to all parents which includes a slip to return to school if they do not want their child to take part. The rationale for using opt-out rather than opt-in consent is: first, I do not anticipate any harm to come to children as a result of participating in this study; second, data collection and the intervention itself will be carried out by children's regular class teacher rather than an adult that children are unfamiliar with; third, all data will be anonymised before being taken from the school premises.

What happens if I change my mind?

You have the right to change your mind and withdraw your school at any time before the end of the study without giving a reason and without your participant rights being affected.. If you would like to withdraw your school, please email r.young@soton.ac.uk. You can withdraw up to the last day of the study (when follow up measures have been completed).

What will happen to the results of the research?

Your school's details, as well as children's details, will remain strictly confidential. Research findings made available in any reports or publications will not include information that can directly identify your school. The results will be analysed and written up as part of the researcher's doctoral thesis project. This write-up will be available from the university's 'ePrints' website (eprints.soton.ac.uk) one year following its final submission; also, it might be published on the university's course blog (blog.soton.ac.uk/edpsych/) or submitted for publication in a peer reviewed journal. The anonymised results may be made available to other researchers as part of further research. The results will be shared with you.

Where can I get more information?

If you would like more information about this study, you can contact the researcher or research supervisors by email using the details below.

Rachael Young (Researcher): r.young@soton.ac.uk

Colin Woodcock (Supervisor): c.woodcock@soton.ac.uk

Catherine Brignell (Supervisor): c.brignell@soton.ac.uk

What happens if there is a problem?

If you have a concern about any aspect of this study, you should speak to the researchers who will do their best to answer your questions. You can use the contact details provided above. If you remain unhappy or have a complaint about any aspect of this study, please contact the University of Southampton Research Integrity and Governance Manager (023 8059 5058, rgoinfo@soton.ac.uk).

Thank you for taking the time to read the information sheet and considering taking part in the research

Appendix J School Consent Form

Date: 07.07.23 Version number: 2

Study: The effect of teacher participation in a gratitude diary intervention on children’s gratitude and sense of school belonging

Researcher: Rachael Young

ERGO number:80736

Please initial the box(es) if you agree with the statement(s):

| | |
|---|--|
| I have read and understood the information sheet 07.07.23, Version 2 and have had the opportunity to ask questions about the study. | |
| I agree for my school to take part in this research project and agree for my school’s data to be used for the purpose of this study. | |
| I understand my participation is voluntary and I may withdraw until the last day of the study for any reason without my school’s participation rights being affected. | |
| I agree to the use of opt-out consent for parents who do not wish their children to take part | |

Name of headteacher (print name)

.....

Signature of headteacher

Date.....

Name of researcher (print name)

.....

Signature of researcher

Date.....

Appendix K Parent Information Sheet

Version 2 07/07/23

Study: The effect of teacher participation in a gratitude diary intervention on children's gratitude and sense of school belonging

Researcher: Rachael Young

ERGO number:80736

Your child is being invited to take part in the above research study. The head teacher of your child's school has given permission for this study to take place there. To help you decide whether you would like your child to take part or not, it is important that you understand why the research is being done and what it will involve. Please read the information below carefully and ask questions if anything is not clear or you would like more information before you decide to take part in this research. If you are happy for your child to participate you will not need to do anything. If you do not want them to take part, you will need to sign the opt-out consent form and return it to your child's school.

What is the research about?

My name is Rachael Young and I am training to be an Educational Psychologist at the University of Southampton. This research project is part of my Doctorate in Educational Psychology qualification.

I am interested in extending the research that has already been done in local schools on the effects of using gratitude diaries to improve children's overall gratitude and sense of school belonging. Some research has shown that children who record school-based gratitude every day over a few weeks have higher gratitude and a greater sense of school belonging than those who complete diaries about neutral events at school.

I am interested to find out whether having the class teacher do their own gratitude diary alongside their pupils affects pupils' gratitude and sense of school belonging. In order to investigate this, my study has four conditions: one where a teacher completes a gratitude diary alongside the pupils in their class each day, one where just the pupils complete a gratitude diary, one where a teacher completes a neutral events diary alongside their class and one where just the pupils complete a neutral events diary.

To measure gratitude before and after the study (to see if the intervention has made a difference), pupils will be asked to complete The Questionnaire for Appreciation in Youth

(QUAY) by Smith et al. (2021) and to measure sense of school belonging before and after the study, pupils will be asked to complete The Belonging Scale, (Frederickson & Dunsmuir, 2009).

Why has my child been asked to participate?

Your child has been asked to participate because they are in year 3, 4, 5 or 6.

What will happen to my child if they take part?

They will be asked to complete the two questionnaires mentioned above at the beginning of the study (which will take about 30 minutes), four weeks later at the end of the study and three weeks later at follow up. The questionnaires will be read out by the class teacher and the children will be asked to circle their responses. They will also be asked to complete a diary every day for 4 school weeks involving 3 things that happened at school that day or 3 things they are grateful for that happened in school that day (this will take about 10 minutes per day). Gratitude diary writing will be completed as a whole-class activity, with all children in the class writing in their diary at the same time.

Are there any benefits in my child taking part?

There are no direct benefits to your child, however this study will help our understanding of children's gratitude. This could be helpful to schools who are considering using gratitude interventions in the future.

Are there any risks involved?

This study does not involve any risks to your child, and all tasks they complete as part of the study will not differ greatly from tasks they would usually be given as part of a typical school day.

What data will be collected?

Data will be collected in the form of questionnaires and diaries. Children will be asked to write their names on the questionnaires and diaries. Once the children's questionnaires are completed, their names will be removed and replaced with a participant number, to ensure all data is anonymous. Similarly, children's names will be removed from their diaries. No analysis will be carried out until everything has been anonymised. A sheet that links participant numbers to their names will be kept securely at the school and destroyed at the end of the study (once follow up measures are completed). The diaries will be checked to ensure that a minimum number of 15 entries have been completed as well as to ensure that the entries match the condition that classes have been assigned to. If, when carrying out these checks, we find any information that causes concern about a child's wellbeing, this information will be passed on to

the school and they will use this sheet to identify the child from the participant number and intervene as they consider appropriate.

Will my child's participation be confidential?

The information we collect about your child will be anonymised. Only members of the research team and responsible members of the University of Southampton may be given access to anonymised data collected for monitoring purposes and/or to carry out an audit of the study to ensure that the research is complying with applicable regulations. Individuals from regulatory authorities (people who check that we are carrying out the study correctly) may require access also to this data. All of these people have a duty to keep information strictly confidential (though there will be nothing identifying individual children or the school in this data). Participant numbers rather than names will be used in all the data analysis. The school will keep a list of the children's names and corresponding participant numbers, so that a child's data can be removed from the study if requested by their parent/carer (or to withdraw during the study). All paper documents (e.g. questionnaires) will be stored in a locked filing cabinet and will only be accessible by the researcher. If you choose to opt your child out of the study, the consent form will be handled by your child's school who will ensure they do not take part, and your child's details will not be seen by the researcher. Any electronic data, (e.g. excel spreadsheets) will be stored on a secure, password protected laptop, and will only be accessible by the researcher and university research supervisors.

Does my child have to take part?

No, it is entirely up to you and your child to decide whether or not they take part. If you decide you want them to take part, you do not need to do anything, and your child will be included in the study. If you do not want your child to take part, please complete and sign the attached opt-out consent form and return it to your child's school by [date].

What happens if I change my mind?

You have the right to change your mind and withdraw your child at any time before the end of the study without giving a reason and without their participant rights being affected. If you would like to withdraw your child, please email the school simply stating the child's name and that you would like to withdraw. You can withdraw your child up to the last day of the study (the day that follow up measures have been completed).

What will happen to the results of the research?

Your child's personal details will remain strictly confidential. Once follow up measures have been completed, the sheet held at the school linking children's names to their participant

Appendix L Script and guidance notes for teachers

Date: 05/05/23

Version:1

ERGO:80736

Gratitude diary condition/teacher involvement

Thank you for taking part in the study. Here is a script you can use to introduce the study, as well as some guidance notes you can refer to each day when doing the diary intervention. If you have any questions about this, or don't know how to answer a particular question that's not covered in the notes, please pass this on to the head teacher who can get in touch with me.

Introducing the diary

'We have been asked to take part in a study. You are going to get a diary that you fill in every day at school for four weeks and I am going to do it too.'

[ADMINISTER QUESTIONNAIRES]

Before we do that, I am going to hand out two different questionnaires and I'll read out the questions. YOU MUST PUT YOUR NAMES ON THESE SO THEY DON'T GET MIXED UP. Answer the questions as honestly as you can. There is no right or wrong answer and you might not have the same answers as someone else. Try not to let other people see your answers. At the end of the four weeks we're going to answer the same questions again and then again three weeks after that.

In the diary, we are going to write three things every day that we are grateful for that have happened at school. Do you know what it means to be grateful? (check children's responses to make sure they understand what gratitude is). I might write, I am grateful that xxxx said thank you when I gave him a spare pencil or when xxxx held the door open for me. Can anyone think of something they might write for today? Any other ideas? We can share our ideas at the end of each day. Make sure it is something that you are grateful for and not just something that happened that day.'

Children will probably want to know why they are doing this and it is fine to say that we are trying it out to see if it goes well and helps children feel better.

At each diary session

'Now we're going to write our diaries'.

Allow up to a couple of minutes to respond to any questions the children might have about their diary task. Feel free to answer these however you think best. They may want to know why you're not doing it, too, and you can say that some teachers have been asked to do one. They may know children who are in a different condition and you can explain that different classes are doing different things to see what works best but it is important that they do this one otherwise it will spoil the results. You might want to share some of your own diary entries from previous days. It will be useful to reiterate that this is a gratitude diary so they are writing about what they are grateful for rather than just what happened. Also, it needs to be something that they are grateful for that happened at school, as well as specific gratitude, e.g. *'I am grateful that Mrs X gave me a sticker in maths today'* rather than *'I am grateful for Mrs X'*.

Give them 10-15 minutes to write the three things they are grateful for that day (meanwhile, you'll be doing your own gratitude diary) and then ask them to put their diaries away and move on to the next task or activity. They may wish to share their entries and a few minutes could be spent listening to some of these. You may wish to share your entries. If some children haven't finished, it would be helpful if they could have a few more minutes to finish so that their entry is complete for each day.

N.B. If writing is a barrier for some children, they can draw what they are grateful for instead or this can be scribed for them as long as the ideas are theirs and the adult is not writing what he or she perceives they should be grateful for.

Gratitude diary condition/no teacher involvement

Thank you for taking part in the study. Here is a script you can use to introduce the study, as well as some guidance notes you can refer to each day when doing the diary intervention. If you have any questions about this, or don't know how to answer a particular question that's not covered in the notes, please pass this on to the head teacher who can get in touch with me.

Introducing the diary

'We have been asked to take part in a study. You are going to get a diary that you fill in every day at school for four weeks.'

[ADMINISTER QUESTIONNAIRES]

Before we do that, I am going to hand out two different questionnaires and I'll read out the questions. YOU MUST PUT YOUR NAMES ON THESE SO THEY DON'T GET MIXED UP Answer the questions as honestly as you can. There is no right or wrong answer and you might not have the

same answers as someone else. Try not to let other people see your answers. At the end of the four weeks we're going to answer the same questions again and then again three weeks after that.

In the diary, you are going to write three things every day that you are grateful for that have happened at school. Do you know what it means to be grateful? (check children's responses to make sure they understand what gratitude is). Someone might write, I am grateful that xxxx said thank you when I gave him a spare pencil or when xxxx held the door open for me. Can anyone think of something they might write for today? Any other ideas? We can share our ideas at the end of each day. Make sure it is something that you are grateful for and not just something that happened that day.'

Children will probably want to know why they are doing this and it is fine to say that we are trying it out to see if it goes well and helps children feel better.

At each diary session

'Now you're going to write your diaries'.

Allow up to a couple of minutes to respond to any questions the children might have about their diary task. Feel free to answer these however you think best. They may want to know why you're not doing it, too, as they may know some teachers who are doing it and you can say that not all teachers have been asked to do one. They may know children who are in a different condition and you can explain that different classes are doing different things to see what works best but it is important that they do this one otherwise it will spoil the results. It will be useful to reiterate that this is a gratitude diary so they are writing about what they are grateful for rather than just what happened. Also, it needs to be something that they are grateful for that happened at school, as well as specific gratitude, e.g. *'I am grateful that Mrs X gave me a sticker in maths today'* rather than *'I am grateful for Mrs X'*.

Give them 10-15 minutes to write the three things they are grateful for that day and then ask them to put their diaries away and move on to the next task or activity. They may wish to share their entries and a few minutes could be spent listening to some of these. If some children haven't finished, it would be helpful if they could have a few more minutes to finish so that their entry is complete for each day.

N.B. If writing is a barrier for some children, they can draw what they are grateful for instead or this can be scribed for them as long as the ideas are theirs and the adult is not writing what he or she perceives they should be grateful for.

Events diary condition/teacher involvement

Thank you for taking part in the study. Here is a script you can use to introduce the study, as well as some guidance notes you can refer to each day when doing the diary intervention. If you have any questions about this, or don't know how to answer a particular question that's not covered in the notes, please pass this on to the head teacher who can get in touch with me.

Introducing the diary

'We have been asked to take part in a study. You are going to get a diary that you fill in every day at school for four weeks and I am going to do it too.'

[ADMINISTER QUESTIONNAIRES]

Before we do that, I am going to hand out two different questionnaires and I'll read out the questions. YOU MUST PUT YOUR NAMES ON THESE SO THEY DON'T GET MIXED UP. Answer the questions as honestly as you can. There is no right or wrong answer and you might not have the same answers as someone else. Try not to let other people see your answers. At the end of the four weeks we're going to answer the same questions again and then again three weeks after that.

In the diary, we are going to write three things every day that have happened at school. I might write, we had assembly or we had story time. Can anyone think of something they might write for today? Any other ideas? We can share our ideas at the end of each day. Make sure it is something that happened that day at school.'

At each diary session

'Now we're going to write our diaries'.

Allow up to a couple of minutes to respond to any questions the children might have about their diary task. Feel free to answer these however you think best. They may want to know why you're doing it, too, and you can say that some teachers have been asked to do one. They may know children who are in a different condition and you can explain that different classes are doing different things to see what works best but it is important that they do this one otherwise it will spoil the results. You might want to share some of your own diary entries from previous days. It will be useful to reiterate that this is a diary for school so they are writing about what happened in school not at the weekend or after school. Also, it needs to be specific, e.g. *'we had an assembly about mental health'* rather than *'we have assemblies on Fridays'*.

Give them 10-15 minutes to write three things that happened that day (meanwhile, you'll be doing your own event diary) and then ask them to put their diaries away and move on to the next task or activity. They may wish to share their entries and a few minutes could be spent listening to some of these. You may wish to share your entries. If some children haven't finished, it would be helpful if they could have a few more minutes to finish so that their entry is complete for each day.

N.B. If writing is a barrier for some children, they can draw what happened instead or this can be scribed for them as long as the ideas are theirs and the adult is not writing what he or she recalls happening that day.

Events diary condition/no teacher involvement

Thank you for taking part in the study. Here is a script you can use to introduce the study, as well as some guidance notes you can refer to each day when doing the diary intervention. If you have any questions about this, or don't know how to answer a particular question that's not covered in the notes, please pass this on to the head teacher who can get in touch with me.

Introducing the diary

'We have been asked to take part in a study. You are going to get a diary that you fill in every day at school for four weeks.'

[ADMINISTER QUESTIONNAIRES]

Before we do that, I am going to hand out two different questionnaires and I'll read out the questions. YOU MUST PUT YOUR NAMES ON THESE SO THEY DON'T GET MIXED UP. Answer the questions as honestly as you can. There is no right or wrong answer and you might not have the same answers as someone else. Try not to let other people see your answers. At the end of the four weeks we're going to answer the same questions again and then again three weeks after that.

In the diary, you are going to write three things every day that have happened at school. You might write, we had assembly or we had story time. Can anyone think of something they might write for today? Any other ideas? Make sure it is something that happened that day at school.'

At each diary session

'Now you're going to write your diaries'.

Appendix L

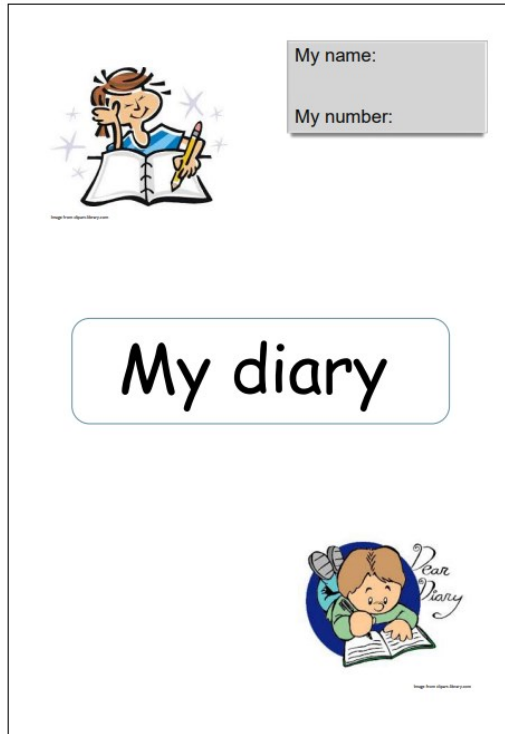
Allow up to a couple of minutes to respond to any questions the children might have about their diary task. Feel free to answer these however you think best. They may want to know why you're not doing it, too, as they may know some teachers who are doing it and you can say that not all teachers have been asked to do one. They may know children who are in a different condition and you can explain that different classes are doing different things to see what works best but it is important that they do this one otherwise it will spoil the results. It will be useful to reiterate that this is a diary for school so they are writing about what happened in school not at the weekend or after school. Also, it needs to be specific, e.g. '*we had an assembly about mental health*' rather than '*we have assemblies on Fridays*'.

Give them 10-15 minutes to write three things that happened that day and then ask them to put their diaries away and move on to the next task or activity. They may wish to share their entries and a few minutes could be spent listening to some of these. If some children haven't finished, it would be helpful if they could have a few more minutes to finish so that their entry is complete for each day.

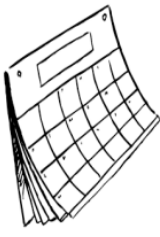
N.B. If writing is a barrier for some children, they can draw what happened instead or this can be scribed for them as long as the ideas are theirs and the adult is not writing what he or she recalls happening that day.

Appendix M Diaries

M.1 Front cover of diaries



M.2 Inside events diary



Instructions
Your task is to keep a diary for 20 days to write about **3 things** that have happened during your day at school.

Write a sentence each about 3 small things that have happened in your school day.
For example:
1. We had an assembly about harvest.
2. I played football at lunchtime.
3. We learned about sound in science.

DATE: _____

1.


2.

3.

M.3 Inside gratitude diary

Instructions

Sometimes it is good to think about things that make you feel thankful. These thoughts are like jewels in a treasure chest. Even the smallest jewels are precious.



Your task is to keep a daily diary for 20 days to write about **3 things** you are thankful for that have happened during your day at school.

For example:

1. I am thankful for my teacher who helped me when I had a question.
2. I am thankful for my friend who let me borrow a pencil when I didn't have one.
3. I am thankful for the sunshine today because it made my face feel warm.

DATE: _____

1. I am thankful ...

2. I am thankful...

3. I am thankful...

Appendix N Tables showing a 3 x 2 x 2 x 3 ANOVA for QUAY and Belonging Scale

Table 8 SPSS results from QUAY

| SPSS ANOVA results | | | | |
|---------------------------|---------------|-------|------|------------|
| Effect | df | F | p | η_p^2 |
| time | 1,953,666.012 | 2.166 | .117 | .006 |
| gender | 1,341 | 2.608 | .107 | .008 |
| diary | 1,341 | .138 | .710 | .000 |
| teacher | 1,341 | .250 | .617 | .001 |
| time*gender | 1,953,666.012 | 2.330 | .099 | .007 |
| time*diary | 1,953,666.012 | .768 | .461 | .002 |
| time*teacher | 1,953,666.012 | 5.559 | .004 | .016 |
| gender*diary | 1,341 | 2.490 | .116 | .007 |
| gender*teacher | 1,341 | .132 | .717 | .000 |
| diary*teacher | 1,341 | 4.279 | .039 | .012 |
| time*gender*diary | 1,953,666.012 | .341 | .706 | .001 |
| time*gender*teacher | 1,953,666.012 | 2.700 | .069 | .008 |
| time*diary*teacher | 1,953,666.012 | 1.121 | .326 | .003 |
| gender*diary*teacher | 1,341 | 2.248 | .135 | .007 |
| time*gender*diary*teacher | 1,953,666.012 | .369 | .692 | .001 |

Appendix N

Table 9 SPSS results from Belonging Scale

| SPSS ANOVA results | | | | |
|---------------------------|--------|-------|------|------------|
| Effect | df | F | p | η_p^2 |
| time | 1, 354 | 1.062 | .345 | .003 |
| gender | 1, 354 | .001 | .976 | .000 |
| diary | 1, 354 | .029 | .866 | .000 |
| teacher | 1, 354 | .722 | .396 | .002 |
| time*gender | 1, 354 | .918 | .400 | .003 |
| time*diary | 1, 354 | 1.145 | .318 | .003 |
| time*teacher | 1, 354 | .019 | .980 | .000 |
| gender*diary | 1, 354 | .730 | .394 | .002 |
| gender*teacher | 1, 354 | 1.236 | .267 | .003 |
| diary*teacher | 1, 354 | .933 | .335 | .003 |
| time*gender*diary | 1, 354 | .938 | .390 | .003 |
| time*gender*teacher | 1, 354 | 1.780 | .170 | .005 |
| time*diary*teacher | 1, 354 | 1.731 | .179 | .005 |
| gender*diary*teacher | 1, 354 | .952 | .330 | .003 |
| time*gender*diary*teacher | 1, 354 | .304 | .734 | .001 |

Glossary of Terms

See Definitions and Abbreviations

List of References

- Alink, K., Denessen, E., Veerman, G.-J., & Severiens, S. (2023). Exploring the concept of school belonging: A study with expert ratings, *Cogent Education*, 10(2), 2235979, DOI: 10.1080/2331186X.2023.2235979
- Allen, K. A., Vella-Brodrick, D., & Waters, L. (2016). Fostering school belonging in secondary schools using a socio-ecological framework. *The Educational and Developmental Psychologist*, 33(1), 97–121.
- Allen, K., Kern, M. L., Vella-Brodrick, D., Hattie, J., & Waters, L. (2018). What schools need to know about foster-ing school belonging: A meta-analysis. *Educational Psychology Review*, 30, 1–34.
- Allen, K., Gray, D. L., Baumeister, R., & Leary, M. R. (2021a). The need to belong: A deep dive into the origins, implications, and future of a foundational construct. *Educational Psychology Review*, 34, 1133–1156. <https://doi.org/10.1007/s10648-021-09633-6>
- Allen, KA., Slaten, C.D., Arslan, G., Roffey, S., Craig, H., Vella-Brodrick, D.A. (2021b). School belonging: The importance of student and teacher relationships. In: Kern, M.L., Wehmeyer, M.L. (eds) *The Palgrave Handbook of Positive Education*. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-64537-3_21
- Allen, KA., Greenwood, C.J., Berger, E. et al. (2024). Adolescent school belonging and mental health outcomes in young adulthood: Findings from a multi-wave prospective cohort study. *School Mental Health* 16, 149–160 <https://doi.org/10.1007/s12310-023-09626-6>
- Anderman, L.H. (2003). Academic and social perceptions as predictors of change in middle school students' sense of school belonging. *Journal of Experimental Education*, 72, 5–22. Retrieved from <http://www.jstor.org/stable/20152724>
- Arslan, G., Allen, KA., & Ryan, T. (2020). Exploring the impacts of school belonging on youth wellbeing and mental health among Turkish adolescents. *Child Indicators Research* 13, 1619–1635. <https://doi.org/10.1007/s12187-020-09721-z>
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioural change. *Psychological Review* 84(2), 191-215.
- Barrett, M.K.(2021). *“These people are my people and they care about me”*: the perspectives of alternative high school graduates on school belonging. [Unpublished doctoral thesis]. Lewis and Clark College, Graduate School of Education and Counseling.

List of References

- Battistich, V., Solomon, D., Kim, D.-i., Watson, M., & Schaps, E. (1995). Schools as communities, poverty levels of student populations, and students' attitudes, motives, and performance: A multilevel analysis. *American Educational Research Journal*, 32(3), 627–658. <https://doi.org/10.2307/1163326>
- Baumeister, R. F., & DeWall, C. N. (2005). The inner dimension of social exclusion: Intelligent thought and self-regulation among rejected persons. In K. D. Williams, J. P. Forgas, & W. von Hippel (Eds.), *The social outcast: Ostracism, social exclusion, rejection, and bullying* (pp. 53–73). Psychology Press.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3), 497–529. <https://doi.org/10.1037/0033-2909.117.3.497>
- Baumeister, R. F., Twenge, J. M., & Nuss, C. K. (2002). Effects of social exclusion on cognitive processes: Anticipated aloneness reduces intelligent thought. *Journal of Personality and Social Psychology*, 83(4), 817–827. <https://doi.org/10.1037/0022-3514.83.4.817>
- Baumgarten-Tramer, F. (1938). "Gratefulness" in children and young people. *The Pedagogical Seminary and Journal of Genetic Psychology*, 53, 53–66. <https://doi.org/10.1080/08856559.1938.10533797>
- Baumsteiger, R., Mangan, S., Bronk, K. C., & Bono, G. (2019). An integrative intervention for cultivating gratitude among adolescents and young adults. *The Journal of Positive Psychology*, 14(6), 807–819. <https://doi.org/10.1080/17439760.2019.1579356>
- Bhaskar, R. (1978). *A Realist Theory of Science*. New York, NY: Harvester Press.
- Bolier, L., Haverman, M., Westerhof, G. J., Riper, H., Smit, F., & Bohlmeijer, E. (2013). Positive psychology interventions: a meta-analysis of randomized controlled studies. *BMC public health*, 13, 119. <https://doi.org/10.1186/1471-2458-13-119>
- Bomber, L. 2020. *Know Me to Teach Me: Differentiated Discipline for Those Recovering from Adverse Childhood Experiences*. Duffield: Worth Publishing Ltd.
- Bowen, S.L.(2023). *A way to grow? An exploration of the impact of different types of gratitude diary and the association between gratitude and post-traumatic growth*. [Unpublished doctoral thesis]. University of Southampton.
- Braun, V., & Clarke, V. (2022). *Thematic analysis: A practical guide*. Sage

List of References

- Braun, V. & Clarke, V. (2023). Toward good practice in thematic analysis: avoiding common problems and becoming a *knowing* researcher. *International Journal of Transgender Health, 24*(1), 1-6. DOI: 10.1080/26895269.2022.2129597
- Bronfenbrenner, U. (1979). *The ecology of human development: experiments by nature and design*. Harvard University Press.
- Critical Appraisal Skills Programme. (2018). CASP qualitative checklist. https://casp-uk.b-cdn.net/wpcontent/uploads/2018/03/CASP-Qualitative-Checklist-2018_fillable_form.pdf
- Cedillo Berber, L., Kuusisto, E. & Tirri, K. (2019). Teachers' perceptions of gratitude in classroom interactions: A case study from Finland. *International Journal of Learning, Teaching and Educational Research, 18*(5), 73-88. <https://doi.org/10.26803/ijlter.18.5.6>
- Cregg, D. R., & Cheavens, J. S. (2021). Gratitude interventions: Effective self-help? A meta-analysis of the impact on symptoms of depression and anxiety. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being, 22*(1), 413–445. <https://doi.org/10.1007/s10902-020-00236-6>
- Cripps, D. (2019). *Exploring the effectiveness of a school-based gratitude intervention on children's level of anxiety, sense of school belonging and sleep quality*. [Unpublished doctoral thesis]. University of Southampton.
- Cunningham, N.J. (2007). Level of bonding to school and perception of the school environment by bullies, victims, and bully victims. *Journal of Early Adolescence, 27*, 457–458. doi:10.1177/0272431607302940
- Dickens, L. R. (2017). Using gratitude to promote positive change: a series of meta-analyses investigating the effectiveness of gratitude interventions. *Basic and Applied Social Psychology, 39*(4), 193–208. <https://doi.org/10.1080/01973533.2017.1323638>
- Diebel, T., Woodcock, C., Cooper, C., & Brignell, C. (2016). Establishing the effectiveness of a gratitude diary intervention on children's sense of school belonging. *Educational and Child Psychology, 33*(2), 117–129.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin, 95*(3), 542–575. <https://doi.org/10.1037/0033-2909.95.3.542>

List of References

- Diniz, G., Korkes, L., Tristão, L. S., Pelegrini, R., Bellodi, P. L., & Bernardo, W. M. (2023). The effects of gratitude interventions: a systematic review and meta-analysis. *Einstein (Sao Paulo, Brazil)*, 21, eRW0371. https://doi.org/10.31744/einstein_journal/2023RW0371
- Dotterer A.M., & Lowe, K. (2011). Classroom context, school engagement, and academic achievement in early adolescence. *Journal of Youth and Adolescence*, 40, 1649–1660.
- Due, C., Riggs, D. W., & Augoustinos, M. (2016). Experiences of school belonging for young children with refugee backgrounds. *The Educational and Developmental Psychologist*, 33(1), 33–53. doi:10.1017/edp.2016.9
- Eisenstein, M., & Bodman, J. (1993). Expressing gratitude in American English. In G. Kasper, & S. Blum-Kulka (Eds.) *Interlanguage Pragmatics* (pp. 64-81). Oxford University Press.
- El Zaatari, W., Ibrahim, A., & Awan, R. U. N. (2021). What promotes adolescents' sense of school belonging? Students and teachers' convergent and divergent views. *Cogent Education*, 8(1). <https://doi.org/10.1080/2331186X.2021.1984628>
- Emmons, R. A. (2004). The psychology of gratitude. In *The Psychology of Gratitude* (pp. 3–16). Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780195150100.003.0001>
- Emmons, R. A., & Mccullough, M. E. (2003). Counting blessings versus burdens : an experimental investigation of gratitude and subjective well-being in daily life. *Journal of Personality and Social Psychology*, 84(2), 377–389. <https://doi.org/10.1037/0022-3514.84.2.377>
- Emmons, R. A., & Shelton, C. M. (2002). Gratitude and the science of positive psychology. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 459–471). New York, NY: Oxford University Press.
- Emmons, R. A., & Stern, R. (2013). Gratitude as a psychotherapeutic intervention. *Journal of Clinical Psychology*, 69(8), 846–855. <https://doi.org/10.1002/jclp.22020>
- Faul, F., Buchner, A., Erdfelder, E., & and Lang, A.-G. (2014). *G*Power 3.1.9.2* [computer software].
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). SAGE Publications.
- Folk, D., & Dunn, E. (2023). A systematic review of the strength of evidence for the most commonly recommended happiness strategies in mainstream media. *Nature human behaviour*, 7(10), 1697–1707. <https://doi.org/10.1038/s41562-023-01651-4>

List of References

- Foster, K. C. (2008). The transformative potential of teacher care as described by students in a higher education access initiative. *Education and Urban Society*, 41(1), 104-126. <https://doi.org/10.1177/0013124508321591>
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56(3), 218–226. <https://doi.org/10.1037//0003-066x.56.3.218>
- Frederickson, N. & Dunsmuir, S. (2009) (Eds.). *Measures of children's mental health & psychological wellbeing*. Chiswick, London: GL Assessment.
- Frederickson, N., Simmonds, E., Evans, L. & Soulsby, C. (2007). Assessing the social and affective outcomes of inclusion. *British Journal of Special Education*, 34(2), 105-115.
- Freire, S., Roçadas, C., Pipa, J. & Aguiar, C. (2024). Classroom social networks, students' peer-related social experiences and sense of belonging: The specific case of students with SEN. *British Educational Research Journal*, 00, 1–19. <https://doi.org/10.1002/berj.3989>
- Froh, J. J., Sefick, W. J., & Emmons, R. A. (2008). Counting blessings in early adolescents: An experimental study of gratitude and subjective well-being. *Journal of School Psychology*, 46(2), 213–233. <https://doi.org/10.1016/j.jsp.2007.03.005>
- Froh, J. J., Bono, G., & Emmons, R. (2010). Being grateful is beyond good manners: Gratitude and motivation to contribute to society among early adolescents. *Motivation and Emotion*, 34(2), 144–157. <https://doi.org/https://doi.org/10.1007/s11031-010-9163-z>
- Froh, J. J., Fan, J., Emmons, R. A., Bono, G., Huebner, E. S., & Watkins, P. (2011). Measuring gratitude in youth: assessing the psychometric properties of adult gratitude scales in children and adolescents. *Psychological assessment*, 23(2), 311–324. <https://doi.org/10.1037/a0021590>
- Froh, J. J., Emmons, R. A., Card, N. A., Bono, G., & Wilson, J. A. (2011). Gratitude and the reduced costs of materialism in adolescents. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being*, 12(2), 289–302. <https://doi.org/10.1007/s10902-010-9195-9>
- Gable, S. L., & Haidt, J. (2005). What (and why) is positive psychology? *Review of General Psychology*, 9(2), 103-110. <https://doi.org/10.1037/1089-2680.9.2.103>
- Gallup (1999). Survey results on “Gratitude”, adults and teenagers. *Emerging Trends*, 20(4–5), 9.

List of References

- Garg, N. (2020). Exploring role of gratitude in developing teacher leadership in Indian universities. *International Journal of Educational Management*, 34(5), 881-901. <https://doi.org/10.1108/IJEM-07-2019-0253>.
- Goodenow, C. (1993a). The psychological sense of school membership among adolescents: Scale development and educational correlates. *Psychology in the Schools*, 30(1), 79-90.
- Goodenow, C. (1993b). Classroom belonging among early adolescent students: Relationships to motivation and achievement. *The Journal of Early Adolescence*, 13(1), 21-43. <https://doi.org/10.1177/0272431693013001002>
- Gordon, A. K., Musher-Eizenman, D. R., Holub, S. C., & Dalrymple, J. (2004). What are children thankful for? An archival analysis of gratitude before and after the attacks of September 11. *Journal Of Applied Developmental Psychology*, 25(5), 541–553. <https://doi.org/10.1016/j.appdev.2004.08.004>.
- Gowing, A., & Jackson, A. C. (2016). Connecting to school: Exploring student and staff understandings of connectedness to school and the factors associated with this process. *Educational and Developmental Psychologist*, 33(1), 54–69. <https://doi.org/10.1017/edp.2016.10>
- Graham, S., & Morales-Chicas, J. (2015). The ethnic context and attitudes toward 9th grade math. *International Journal of Educational Psychology*, 4, 1–32. doi:10.17583/ijep.2015.1374
- Green, M., Emery, A., Sanders, M., & Anderman, L. H. (2016). Another path to belonging: A case study of middle school students' perspectives. *The Educational and Developmental Psychologist*, 33(1), 85–96. <https://doi.org/10.1017/edp.2016.4>
- Hamm, J., & Faircloth, B. (2005). The role of friendship in adolescents' sense of school belonging. *New Directions for Child and Adolescent Development*, 107, 61–78. <https://doi.org/10.1002/cd.121>
- Hill, P. L., & Allemand, M. (2011). Gratitude, forgivingness, and well-being in adulthood: Tests of moderation and incremental prediction. *The Journal of Positive Psychology*, 6, 397–407.
- HM Government. (2024). *Pupil absence in schools in England: academic year 2022/2023*. <https://explore-education-statistics.service.gov.uk/find-statistics/pupil-absence-in-schools-in-england/2022-23>
- Howells, K. & Cumming, J. (2012) Exploring the role of gratitude in the professional experience of pre-service teachers. *Teaching Education*, 23(1) pp. 71-88.

List of References

- Howells, K. (2014). An exploration of the role of gratitude in enhancing teacher–student relationships. *Teaching and Teacher Education*, 42, 58-67.
- Juvonen, J. (2006). Sense of belonging, social bonds, and school functioning. In P. A. Alexander & P. H. Winne (Eds.), *Handbook of educational psychology* (pp. 655–674). Lawrence Erlbaum Associates Publishers.
- Kia-Keating, M., & Ellis, B.H. (2007). Belonging and connection to school in resettlement: Young refugees, school belonging, and psychosocial adjustment. *Clinical Child Psychology and Psychiatry*, 12(1):29-43. doi:[10.1177/1359104507071052](https://doi.org/10.1177/1359104507071052)
- Kwok, S. Y. C. L., Gu, M., & Kit, K. T. K. (2016). Positive psychology intervention to alleviate child depression and increase life satisfaction: A randomized clinical trial. *Research on Social Work Practice*, 26(4), 350-361. <https://doi.org/10.1177/1049731516629799>
- Lambert, N. M., Gwinn, A. M., Baumeister, R. F., Strachman, A., Washburn, I. J., Gable, S. L., & Fincham, F. D. (2013). A boost of positive affect: The perks of sharing positive experiences. *Journal of Social and Personal Relationships*, 30(1), 24-43. <https://doi.org/10.1177/0265407512449400>
- Lapinsky, S.D. (2019). *The lived experience of school belonging: A phenomenological study of middle school students with emotional and/or behavioral disorders*. [Unpublished doctoral thesis]. Boston College Lynch School of Education and Human Development.
- LaRusso, M. D., Romer, D., & Selman, R. L. (2008). Teachers as builders of respectful school climates: Implications for adolescent drug use norms and depressive symptoms in high school. *Journal of Youth and Adolescence*, 37(4), 386–398. <https://doi.org/10.1007/s10964-007-9212-4>
- Lazarus, R. S., & Lazarus, B. N. (1994). *Passion and reason: Making sense of our emotions*. New York: Oxford University Press.
- Liau, I., Baelen, R., Borah, R. F., Yu, A., & Colby, A. (2018). Gratitude for teachers as a psychological resource for early adolescents: A mixed-methods study. *Journal of Moral Education*, 1-18. doi:[10.1080/03057240.2017.1415872](https://doi.org/10.1080/03057240.2017.1415872).
- Long, H.A., French, D.P., Brooks, J.M. (2020). Optimising the value of the critical appraisal skills programme (CASP) tool for quality appraisal in qualitative evidence synthesis. *Research Methods in Medicine & Health Sciences*, 1(1):31-42. doi:[10.1177/2632084320947559](https://doi.org/10.1177/2632084320947559)

List of References

- Long, E., Zucca, C., & Sweeting, H. (2021). School climate, peer relationships, and adolescent mental health: A social ecological perspective. *Youth & Society*, 53(8), 1400-1415. <https://doi.org/10.1177/0044118X20970232>
- Marraccini, M. E., & Brier, Z. M. F. (2017). School connectedness and suicidal thoughts and behaviors: A systematic meta-analysis. *School Psychology Quarterly*, 32(1), 5–21. <https://doi.org/10.1037/spq0000192>
- Maslow, A.H. (1943). A theory of human motivation. *Psychological Review*, 50, 370-396.
- McAdams, D. P., & Bauer, J. J. (2004). Gratitude in modern life: Its manifestations and development. In R. A. Emmons & M. E. McCullough (Eds.), *The psychology of gratitude* (pp. 81–99). Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780195150100.003.0005>
- McCullough, M. E., Emmons, R. A., & Tsang, J.-A. (2002). The grateful disposition: A conceptual and empirical topography. *Journal of Personality and Social Psychology*, 82(1), 112–127. <https://doi.org/10.1037/0022-3514.82.1.112>
- Muller, C. (2001). The role of caring in the teacher-student relationship for at-risk students. *Sociological Inquiry*, 71, 241-255.
- Myles, O., Boyle, C., & Richards, A. (2019). The social experiences and sense of belonging in adolescent females with autism in mainstream school. *Educational and Child Psychology*, 36(4), 14.
- Nelson-Cofey, S. K., Johnson, C. & Cofey, J. K. (2021). Safe haven gratitude improves emotions, well-being, and parenting outcomes among parents with high levels of attachment insecurity. *J. Posit. Psychol.* <https://doi.org/10.1080/17439760.2021>.
- Obeldobel, C. A., & Kerns, K. A. (2021). A literature review of gratitude, parent–child relationships, and well-being in children. *Developmental Review*, 61, 1–30. <https://doi.org/10.1016/j.dr.2021.100948>
- O'Donnell, A. W., Redmond, G., Gardner, A. A., Wang, J. J. J., & Mooney, A. (2023). Extracurricular activity participation, school belonging, and depressed mood: A test of the compensation hypothesis during adolescence. *Applied Developmental Science*. Advance online publication. <https://doi.org/10.1080/10888691.2023.2260745>
- Ofsted. (2019). *Research and analysis. Summary and recommendations: teacher well-being research report*. <https://www.gov.uk/government/publications/teacher-well-being-at->

List of References

[work-in-schools-and-further-education-providers/summary-and-recommendations-teacher-well-being-research-report](#)

- O’Keefe, R. (2023). *What are children and young people’s views and experiences of gratitude interventions?* [Unpublished doctoral thesis]. University of Southampton.
- O’Rourke, J. O., & Cooper, M. (2010). Lucky to be happy: A study of happiness in Australian primary students. *Australian Journal of Educational & Developmental Psychology*, 10, 94-107.
- Osborn, T.L., Rodriguez, M., Wasil, A.R., Venturo-Conerly, K.E., Gan, J., Alemu, R.G., et al. (2020). Single-session digital intervention for adolescent depression, anxiety, and well-being: outcomes of a randomized controlled trial with Kenyan adolescents. *Journal of Consulting and Clinical Psychology*, 88(7), 657-68
- Owens, R. L., & Patterson, M. M. (2013). Positive psychological interventions for children: A comparison of gratitude and best possible selves approaches. *The Journal of Genetic Psychology: Research and Theory on Human Development*, 174(4), 403–428. <https://doi.org/10.1080/00221325.2012.697496>
- Page, M.J., McKenzie, J.E., Bossuyt, P.M., Boutron, I., Hoffmann, T.C., Mulrow, C.D., et al. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*, 372 (71). doi: 10.1136/bmj.n71
- Parker, P. D., Allen, K., Parker, R. B., Dr, Guo, J., Marsh, H., Basarkod, G., & Dicke, T. (2021). *School belonging predicts whether an emerging adult will be Not in Education, Employment, or Training (NEET) after school.* <https://doi.org/10.31234/osf.io/cbwph>
- Parr, E.J., Shochet, I.M., Cockshaw, W.D., & Kelly, R.L. (2020). General belonging is a key predictor of adolescent depressive symptoms and partially mediates school belonging. *School Mental Health* 12, 626–637. <https://doi.org/10.1007/s12310-020-09371-0>
- Peterson, C., & Park, N. (2006). Character strengths in organizations. *Journal of Organizational Behavior*, 27(8), 1149–1154. <https://doi.org/10.1002/job.398>
- Peterson, C., & Seligman, P. (2004). Gratitude. In *Character strengths and virtues: a handbook and classification* (pp. 553–568). Oxford university press.
- Portney L.G., & Watkins M.P.(Eds.). (2000). Power and sample size. In *Foundations of Clinical Research: Applications to Practice*, 3e. McGraw-Hill

List of References

- Education. <https://fadavispt.mhmedical.com/content.aspx?bookid=1987§ionid=149502415>)
- Rash, J. A., Matsuba, M. K., & Prkachin, K. M. (2011). Gratitude and well-being: who benefits the most from a gratitude intervention? *Applied Psychology: Health and Well-Being*, 3(3), 350–369. <https://doi.org/10.1111/j.1758-0854.2011.01058.x>
- Roeser, R. W., Midgley, C., & Urdan, T. (1996). Perceptions of the psychological environment and early adolescents' psychological and behavioral functioning in school: the mediating role of goals and belonging. *Journal of Educational Psychology*, 88, 408–422.
- Roth, R.A., Suldo, S.M., Ferron, J.M. (2017). Improving middle school students' subjective well-being: efficacy of a multicomponent positive psychology intervention targeting small groups of youth. *School Psychology Review*. 46(1), 21-41.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78. <https://doi.org/10.1037/0003-066X.55.1.68>
- Ryan, R. M., Stiller, J., & Lynch, J. H. (1994). Representations of relationships to teachers, parents, and friends as predictors of academic motivation and self-esteem. *Journal of Early Adolescence*, 14, 226- 249.
- Sánchez, B., Colón, Y. & Esparza, P. (2005). The role of sense of school belonging and gender in the academic adjustment of Latino adolescents. *Journal of Youth and Adolescence* 34, 619–628. <https://doi.org/10.1007/s10964-005-8950-4>
- Saraví, G. A., Bayón, M. C., & Azaola, M. C. (2020). Constructing school belonging(s) in disadvantaged urban spaces: adolescents' experiences and narratives in Mexico City. *Youth & Society*, 52(7), 1107-1127. <https://doi.org/10.1177/0044118X19838188>
- Seligman, M. E., & Csikszentmihalyi, M. (2000). Positive psychology. An introduction. *The American Psychologist*, 55(1), 5–14. <https://doi.org/10.1037/0003-066X.55.1.5>
- Seligman, M. E. P., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: empirical validation of interventions. *The American Psychologist*, 60(5), 410–421. <https://doi.org/10.1037/0003-066X.60.5.410>
- Shaw, E. (2019). 'How do I know that I belong?' Exploring secondary aged pupils' views on what it means to belong to their school. *Educational and Child Psychology* 36(4), 79-90.

List of References

- Shuttleworth, A. (2018). *Sense of school belonging: how can schools make a difference?* [Unpublished doctoral thesis]. University of Southampton.
- Skinner, E. A., & Belmont, M. J. (1993). Motivation in the classroom: Reciprocal effects of teacher behavior and student engagement across the school year. *Journal of Educational Psychology, 85*(4), 571–581. <https://doi.org/10.1037/0022-0663.85.4.571>
- Slaten, C.D., Elison, Z.M., Hughes, H., Yough, M., & Shemwell, D. (2015). Hearing the voices of youth at risk for academic failure: What professional school counselors need to know. *The Journal of Humanistic Counseling, 54*, 203–220. doi:10.1002/johc.12012
- Smith, S. (2020). *The benefits of children's gratitude: identifying mediators and designing a new measure.* [Unpublished doctoral thesis]. University of Southampton.
- Sobitan, T. (2022). Understanding the experiences of school belonging amongst secondary school students with refugee backgrounds (UK), *Educational Psychology in Practice, 38*(3), 259-278, DOI: 10.1080/02667363.2022.2084042
- Spilt, J.L., Koomen, H.M.Y. & Thijs, J.T. (2011). Teacher wellbeing: The importance of teacher–student relationships. *Educational Psychology Review 23*, 457–477. <https://doi.org/10.1007/s10648-011-9170-y>.
- Stevens, T., Hamman, D., & Olivarez Jr., A. (2007). Hispanic students' perception of white teachers' mastery goal orientation influences sense of school belonging. *Journal of Latinos and Education, 6*, 55–70. doi:10.1080/15348430709336677
- Stiefel, L., Shiferaw, M., Schwartz, A. E., & Gottfried, M. (2016). Who feels included in school? Examining feelings of inclusion among students with disabilities. *Educational Researcher, 47*(2), 105–120. <https://doi.org/10.3102/0013189X17738761>
- Tajfel, H., Flament, C., Billig, M. G., & Bundy, R. F. (1971). Social categorization and intergroup behaviour. *European Journal of Social Psychology, 1*, 149-177.
- Taylor, S.P. (2018). Critical realism vs social constructionism & social constructivism: application to a social housing research study. *International Journal of Sciences: Basic and Applied Research, 37* (2). pp. 216-222.
- Thomas, J., & Harden, A. (2008). Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Medical Research Methodology, 8*(1), 1–10. <https://doi.org/10.1186/1471-2288-8-45/FIGURES/2>

List of References

- Unanue, W., Gomez Mella, M. E., Cortez, D. A., Bravo, D., Araya-Véliz, C., Unanue, J., & Van Den Broeck, A. (2019). The reciprocal relationship between gratitude and life satisfaction: evidence from two longitudinal field studies. *Frontiers in psychology, 10*, 2480. <https://doi.org/10.3389/fpsyg.2019.02480>
- Uslu, F., & Gizir, S. (2017). School belonging of adolescents: the role of teacher-student relationships, peer relationships and family involvement. *Educational Sciences – Theory and Practice, 17*(1), 63-82.
- Viner, R. M., Ozer, E. M., Denny, S., Marmot, M.G., Resnick, M., Fatusi, A., & Currie, C. (2012). Adolescence and the social determinants of health. *Lancet, 379*, 1641–1652.
- Wallace, T. L., Ye, F., & Chhuon, V. (2012). Subdimensions of adolescent belonging in high school. *Applied Developmental Science, 16*(3), 122–139. <https://doi.org/10.1080/10888691.2012.695256>
- Walsh, L. C., Regan, A., Twenge, J. M. & Lyubomirsky, S. (2022). What is the optimal way to give thanks? Comparing the effects of gratitude expressed privately, one-to-one via text, or publicly on social media. *Afect. Sci.* <https://doi.org/10.1007/s42761-022-00150-5>
- Watkins, P. C. (2004). Gratitude and subjective well-being. In *The Psychology of Gratitude* (pp. 167–192). Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780195150100.003.0009>
- Wentzel, K.R. (2002), Are effective teachers like good parents? Teaching styles and student adjustment in early adolescence. *Child Development, 73*, 287-301. <https://doi.org/10.1111/1467-8624.00406>
- White, P. (1999). Gratitude, citizenship, and education. *Studies in Philosophy and Education, 18*(1–2), 43–52.
- Wilhelm, A. K., Bigelow, M., Hang, M., Ortega, L. E., Pergament, S., & Allen, M. L. (2022). Somali, Latino, and Hmong youth perceptions of school connectedness. *Health equity, 6*(1), 508–515. <https://doi.org/10.1089/heq.2021.0095>
- Witvliet, C. v., Richie, F. J., Root Luna, L. M., & Van Tongeren, D. R. (2019). Gratitude predicts hope and happiness: A two-study assessment of traits and states. *The Journal of Positive Psychology, 14*(3), 271–282. <https://doi.org/10.1080/17439760.2018.1424924>
- Wood, A.M., Maltby, J., Gillett, R., Linley, P.A. & Joseph, S. (2008). The role of gratitude in the development of social support, stress, and depression: Two longitudinal studies. *Journal of Research in Personality, 42*(4), 854-871. <https://doi.org/10.1016/j.jrp.2007.11.003>

List of References

- Wood, A. M., Joseph, S., & Maltby, J. (2009). Gratitude predicts psychological well-being above the Big Five facets. *Personality and Individual Differences, 46*(4), 443–447. <https://doi.org/10.1016/j.paid.2008.11.012>
- Wood, A. M., Froh, J. J., & Geraghty, A. W. A. (2010). Gratitude and well-being: A review and theoretical integration. *Clinical Psychology Review, 30*(7), 890–905. <https://doi.org/10.1016/j.cpr.2010.03.005>
- Wood, A. M., Emmons, R. A., Algoe, S. B., Froh, J. J., Lambert, N. M., & Watkins, P. (2016). A dark side of gratitude? Distinguishing between beneficial gratitude and its harmful impostors for the positive clinical psychology of gratitude and well-being. In *The Wiley Handbook of Positive Clinical Psychology* (pp. 137–151). John Wiley & Sons, Ltd. <https://doi.org/10.1002/9781118468197.ch10>
- Zhang, T. (2023). Critical realism: a critical evaluation. *Social Epistemology, 37*(1), 15-29, DOI: 10.1080/02691728.2022.2080127