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COVID-19 school closures and school-based social and emotional learning programmes: impacts on social and emotional functioning for teachers and children

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A Thesis Submitted to

the School of Education, University College Dublin

In Partial Fulfilment of the Requirements

For the Degree of Doctor of Educational Psychology

Research Supervisor: Dr. Jennifer Symonds

Head of School: Professor William Kinsella

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Dedication

I dedicate my thesis work to my two beautiful daughters, Grace and Abigail. This work is inspired by the wonderful energy you bring to our family every day. I hope this someday inspires you to follow your heart, work hard and always remember that with determination you can achieve higher than you ever thought possible.

Abstract

This thesis consists of two distinct papers; one investigating children's social and emotional functioning in the context of the COVID-19 school closures; and the other examining the impact of social and emotional learning (SEL) programmes on teachers' and children's self-efficacy. The first paper of this thesis, a narrative systematic literature review, investigates the effectiveness of school-based SEL programmes on children's and teachers' self-efficacy. Data were insufficient to ascertain conclusive results, and findings indicate a gap in the research in this area. The second paper of this thesis, a quantitative empirical study, investigates the impact of the COVID-19 school closures on the social and emotional functioning of primary school children. Key findings were that the most impactful predictors of positive social and emotional functioning were spending quality time with parents, having siblings to play with, and playing outside with friends.

Keywords

COVID-19; self-efficacy; social and emotional learning; school closures; wellbeing.

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Chapter 1: Introduction

Have you ever wondered how we can best assist children to become emotionally and socially competent? Society often deems which types of behaviours in children are 'suitable' or 'acceptable'. Often this popular view of what is correct, does not consider the varied developmental trajectories of children and the diverse environments they are growing up in and learning from. Psychological research over the last century has demonstrated that, while children are born into this world with a propensity for psychological and emotional traits, as they develop and grow, they learn a huge amount from their environment, the relationship with their parents and the people that surround them (Vygotsky, 1978; Bronfenbrenner, 1979). It is with this understanding of the sociocultural setting in which children develop, that society can best contemplate what is most helpful to facilitate children's positive development through tailored teaching and learning.

The term social and emotional learning has become widely used over the past three decades, with specific emphasis on the teaching and learning of social and emotional skills. However, what does social and emotional learning really mean for children and how can it be incorporated into children's lives? How can children fit in time for social and emotional learning on top of their already busy schedules, that are often filled with academic and extracurricular activities? In my opinion, children's lives have become over complicated in recent eras. In Ireland, children start school at a young age, entering the formal education system at the age of four or five. There are then increasingly applied systemic pressures of academic learning across the school years. Teachers often have high expectations of children's behaviour from the very first day, including sitting down quietly, taking turns, putting hands up to speak, while reducing fidgeting or speaking what comes to mind. The education system emphasises academic achievement, with little room in the curriculum for specific instruction on social and emotional skills. Social and emotional learning is often

provided inadvertently in the school environment, with positive role-modelling from educators, and through integration within other areas of the curriculum.

My research journey for this thesis started with a strong belief and interest in positive psychology and the emphasis it places on experiencing positive emotions like joy, contentment, and gratitude (Seligman, 2011). Of importance to education, experiencing positive emotions at school can increase a child's wellbeing and performance in learning, (Al-Mansoori et al. 2017). With positive psychology as an overarching perspective, I furthered my knowledge on the need for an emphasis on social and emotional learning in schools. This led to my initial plan to research the Weaving Wellbeing positive mental health programme for primary school children, which is underpinned by theories from positive psychology. As my research journey continued, and my plans changed, my emphasis turned to Vygotsky's Sociocultural Theory (1977) and Bronfenbrenner's Ecological Systems Theory (1978), which eventually became the perspective underpinning the research questions and findings from my empirical study.

Social and Emotional Wellbeing of Children in Ireland

In recent years, surveys have been carried out on young people's wellbeing in Ireland, indicating that most young people experience positive mental health (DES/HSE/DOH, 2015). Researchers from the nationally representative Growing Up in Ireland (GUI) study found that most children had positive outcomes at age 13-years, however 16 per cent of the children also reported depressive symptoms (Nixon, 2021). The most important factors identified as impacting on children's social-emotional and behaviour were relationships with peers and parents, and parent-child conflict (Nixon, 2021).

The social structure of contemporary Ireland can unfortunately lead to many children and young people attending school carrying heavy social and emotional burdens, which can be disadvantageous to their learning and psychological wellbeing (Cefai et al. 2018). The

challenges that children and young people can face include media exploitation and technological addiction, family conflict, poverty and social inequality, bullying and cyberbullying, academic pressure and stress, loneliness and social isolation, and changing family structures (Cefai et al. 2018). During my experience of working in schools, I have observed that children can be burdened by social and emotional issues, such as dealing with conflict in their peer relationships and overcoming disappointment for poor attainment scores. Sometimes these children can allow negative emotions to overwhelm them, which can affect their attention and concentration in school, and in turn impact their academic performance. My observation is supported by research that consistently finds a relationship between academic success and social and emotional intelligence (Sullivan, 1999).

Social and Emotional Learning for all Socio-Demographics

My initial research ideas emerged from my concern about the lack of formal social and emotional education for children from all socio-demographic areas, including non-DEIS schools (schools not located in disadvantaged communities). Currently in Ireland, emphasis is put on social and emotional learning in DEIS (Delivering Equality of Opportunity in Schools) primary schools. While it is extremely important to enhance social and emotional learning in DEIS schools, I feel that there is also a need for curriculum time allocation and funding for structured social and emotional learning programmes, aimed at enhancing children's wellbeing, in non-DEIS schools. It can be thought that social and emotional learning is only important for children with behavioural or psychological problems, however social and emotional learning is based on positive psychology, which not only aims to alleviate the negative, but also strives to enhance the positive.

Background to the Systematic Literature Review

The systematic literature review is investigative in nature and examines the effects that social and emotional learning programmes may have on children's and teachers' self-

efficacy. The aim of this review is to narratively synthesise the current evidence on the effectiveness of social and emotional learning programmes on self-efficacy, including self-efficacy of both the teachers teaching the programme and the children learning the programme. The decision to include teachers' self-efficacy as well as children's self-efficacy was made in acknowledgement of the interlinked nature of classrooms where teachers' and students' self-efficacy are part of a dynamic social system.

Rationale

When first planning my systematic literature review, I was interested in exploring the impact of school-based social and emotional learning programmes on children's social and emotional skills in general. However, after considering the number of outcomes and related synonyms that would need to be included in the search, my original idea became non-feasible. To narrow down the outcome of interest, I decided to utilise the Collaborative for Academic, Social, and Emotional Learning (CASEL) framework and choose self-efficacy, as I felt that self-efficacy underpins all aspects of the framework (CASEL, 2022). This is discussed in further detail below. I wanted to look at self-efficacy for students and for teachers, because I am interested in the relationship between teachers teaching, students learning, and the impact social and emotional learning programmes have on the whole classroom.

Throughout my research journey, I noticed the large amount of research on social and emotional learning programmes, both in primary schools and secondary schools. In my training as an educational psychologist, I was particularly interested in discovering which school-based social and emotional learning programmes are most impactful on the whole classroom, meaning which programmes best support both students and teachers. I felt that narrowing the search to look at the impact of these programmes on children's and teachers' self-efficacy would allow me to uncover information about how self-efficacy can underpin

effective social and emotional learning. It is my understanding that possessing self-efficacy in your own ability to learn, and in your social and emotional skills, should allow students and teachers to get the most from the learning and utilise the skills they have been taught when they participate in social and emotional learning programmes.

After completing my search and screening process, three studies met the inclusion criteria in my systematic literature review. This indicated a huge gap in the literature on how social and emotional learning programmes impact self-efficacy in classrooms. This finding is particularly relevant to educational psychology practice, as much of our work revolves around social, emotional, and behavioural difficulties for children in primary and secondary schools. A better understanding of how social and emotional learning programmes can impact self-efficacy, is an area that could benefit educational psychology practice more if only we had more information on it.

For me as an educational psychologist in training, the findings from the systematic literature review were particularly relevant to the information I provide to schools, and families. This systematic literature review has provided me with important data to inform my own practice, including information on a wide range of social and emotional learning programmes and what they offer to children and what skills have been shown to become most impacted by these programmes. Also, my research has highlighted to me the importance of self-efficacy and how it is something that can be taught and learned at any stage of life. This review has shown me that self-efficacy is often overlooked in comparison to ability beliefs and academic self-concept. However, it is now my understanding, as discussed above, that self-efficacy can play a key role in children and teachers' positive social and emotional functioning.

For educational psychologists working with children, the child is at the forefront of all the work we do. This current systematic literature review highlights the benefits of various

social and emotional learning programmes for children. More research in this area is needed to increase the evidence base on the importance of self-efficacy and social and emotional learning programmes for providing life skills that will benefit, not only the child, but also the families, class teacher and the whole school surrounding the child. Prioritising social and emotional learning needs to be part of a whole school policy and ethos which can impact children, their families, and the wider community.

Research Journey

My ideas for the systematic literature review emerged after reading literature based on positive psychology theories. Originally, I intended for my review to focus on the impact of the Weaving Wellbeing programme on the social and emotional skills of primary school children. However, there were no published empirical studies on this relatively new, Irish designed wellbeing programme, at the time I began my systematic literature review planning. Furthermore, before beginning my doctorate I had worked on a smaller scale research study, which brought the term self-efficacy to my attention. This previous research that I carried out as part of my Higher Diploma in Psychology, looked at the impact a Brief Mindfulness Intervention had on Primary School Children's Self-Efficacy. It was through reviewing the literature for this study, that I noticed a gap in the literature on self-efficacy as an outcome of social and emotional learning programmes.

During my research journey, as I learned more about social and emotional learning, I found the CASEL framework for social and emotional learning. I then became interested in exploring different aspects of the framework, specifically the five competencies of self-management, self-awareness, social awareness, relationship skills and responsible decision-making. It was clear that I would not have the capacity to synthesise the literature on the impact of wellbeing programmes on all the five competencies, so I began thinking about what underpins these competencies. With that in mind, I decided on self-efficacy as an outcome

and decided to look further into this concept. I realised that self-efficacy, and the importance of the positive belief system behind these five competencies, is imperative to the teaching and learning of any social and emotional learning programme or intervention.

In preparation for my systematic literature review, I spent a lot of time thinking about and researching my preliminary ideas, which required me to narrow down the research field of social and emotional learning to identify a gap in the evidence base. Through working on my literature logbook and systematic literature review protocol, I created a search strategy that would be suitable for my final systematic literature review. I identified the search engines that would identify the papers most relevant to my area, designed my search terms, and decided on my inclusion and exclusion criteria. It was through many hours of scoping through previous systematic literature reviews and research papers, that allowed me the information I needed to ensure that my systematic literature review would target a gap in the research and would uncover information that is useful to the work of an educational psychologist.

Background to the Empirical Journal Article

My empirical journal article is a quantitative study that investigates the development of children's social and emotional functioning across the COVID-19 school closures and summer holiday lockdown in 2020. A group of 87 primary school children completed quantitative measures prior to the schools closing in March 2020, answering questions on their peer relationships and their emotional expression and awareness. They then completed these same measures in September 2020, when the schools reopened, along with an added set of questions, that I designed, to research children's social interactions while the schools were closed and during the summer holiday lockdown. The study aimed to identify how the social interactions that children had during the school closures may have impacted on the development of their social and emotional functioning. Using a combination of multiple

linear regression and paired samples t-tests, I examined the development of children's social and emotional skills and regressed these on their social interactions during that period, including their relationships with parents, peers, and siblings.

Rationale

Our social interactions with people in our proximal environments play a huge rule in the people that we become. A child's social and emotional skills impact greatly on their school experience and overall quality of life, with stronger social and emotional skills also being linked to higher academic performance (Wang et al. 2019). Previous research suggests that social and emotional skills can be impacted by various factors in a child's environment (Wheeler, 2008). Due to the sudden and rare nature of the COVID-19 school closures, there is extremely limited research on how an unplanned sudden change in ecological context for a child can impact their social and emotional development. This is particularly relevant to the age group that participated in this current research study, with middle childhood being a key stage of social and emotional development for a child, where peers start becoming more important in a child's life, and relationships with parents, although still important, become less central to children's social world.

In 2020 in Ireland, there was a six-month period consisting of three months of school closures followed by social and travel restrictions during the summer holidays. During this time, children mainly socialised with their families and had limited interaction with their friends. Spending time with peers occurred through phone or online methods, or through sports clubs or camps during the summer holiday period. The empirical journal article considered the frequency and importance of these interactions for the children, in relation to children's perceptions of their peer relationships and emotional awareness and expression.

Research Journey

My research journey was complicated due to the pandemic. Following the completion of the systematic literature review and once I began my data collection for my empirical journal article, COVID-19 unexpectedly changed everyone's plans. Three weeks following the beginning of my data collection, the COVID-19 pandemic arrived in Ireland and all schools were closed. With that, the Weaving Wellbeing programme stopped, and I was forced to adapt my research. Originally, I had intended to examine the impact of the Weaving Wellbeing programme on the development of children's social and emotional competencies. I took the pre-test measures of social and emotional functioning to fit with this research objective. After school closures, my supervisors and I discussed the best ways to utilise the data that had been collected, and more importantly to use my research to gain an understanding of how the COVID-19 school closures and summer lockdown period may have impacted on the social and emotional skills of this group of primary school children.

Because of the new purpose and aims of the research, I had to amend my ethics application, and I informed parents of the changes in my research design and asked them for consent for the new research plan. Key advice provided to me in my stage transfer assessment panel was to focus on the social interactions of the children, specifically looking at the interactions between the children and their parents, siblings and peers. This panel helped me formulate the questions that were necessary to inform my social interactions questionnaire, to gain the most beneficial, but non-invasive data from the children's experiences during this period.

Once the data had been collected, I began deciding the best methods of data analysis. Because I had repeated measures data on children's social and emotional functioning, I decided on using paired samples t-tests to analyse this pre and post data. However, a more complex analysis was required to factor in the new data collected from the social interactions

questionnaire. This questionnaire provided three forms of data: relationship with parents, relationship with peers, and relationship with siblings. In discussion with my supervisor, I chose to use multiple linear regression to examine the impact of the social interactions on children's social and emotional functioning at the end of the lockdown, after controlling for the pre-lockdown levels. The results of the paired samples t-tests and multiple linear regressions supported my assumptions that social interactions would matter for the development of children's social and emotional functioning, with the limitation that all data were child self-report and were subject to self-report bias.

Reflections

When undertaking this doctoral thesis, my initially limited knowledge on the topic of social and emotional learning and social and emotional skills was almost a blessing in disguise. The more I delved into my research topic and the more familiar I became with it, the more my understanding of it and my ideas evolved. I constantly questioned my thoughts and ideas and while sometimes it felt like I was diving into a rabbit hole, I soon realised that this was all part of my research journey. Getting lost in the literature on occasion was important for growing my knowledge and increasing my understanding of how research studies are carried out.

During my research journey, I encountered many pitfalls, which pushed me to my limits and sometimes left me feeling like I was drowning in endless research papers. The regular submission deadlines worked well to keep me focused and spur me to make necessary decisions, so that the research could continue to progress. I constantly deliberated about my decisions, thinking: is this relevant, is this useful and will this information be useful for educational psychology practice? I have also increased my knowledge on the complex language of quantitative statistics, which provided me with opportunities to analyse my data to best of my ability and to produce some interesting results.

An unexpected benefit of doing my research was to be able to utilise data on children's development during the COVID-19 pandemic. In the future, I would like to explore this topic further, to do more research on children's relationships with their parents and peers and how these relationships impact on children's social and emotional skills as they develop across time. It would be interesting to investigate the relationship between the parent and child from both the parents' perspective and the children's perspective, and then over time measure the children's perceived social and emotional skills in comparison to their peers. This research would add useful information on how these relationships impact on a child's natural development, regardless of school closures. Overall, throughout this research, I have grown both personally and professionally, giving me great self-efficacy in my ability as a researcher and educational psychology practitioner whose actions in the field are informed by research.

Summary

This thesis explores how social and emotional learning and various relationships in children's lives can influence their social and emotional skills, including self-efficacy. In this chapter I explained the focus and significance of the systematic literature review and the quantitative research article. I discussed the rationale for both pieces of research, my research journey, and the implications of the results for educational psychology practice and me as a professional. The remainder of this thesis is set across four chapters. Chapter two presents the systematic literature review, which synthesises the current body of literature on the impact of social and emotional learning programmes on primary school children's and teachers' self-efficacy. Chapter three is the extended methodology for my empirical journal article. Chapter four presents the empirical journal article on the impact of the COVID-19 school closures on primary school children's social and emotional skills. Finally, in chapter five I overview the implications of my research for future research and educational psychology practice.

Definition of Key Terms

CASEL

Collaborative for Academic, Social, and Emotional Learning – an organisation dedicated to social and emotional learning (CASEL, 2022).

COVID-19 school closures

This is the period of time in Ireland between 12th March 2020 and June 2020 when all schools in Ireland were closed. Schools then reopened in September 2020.

DEIS

Delivering Equality of Opportunity in Schools - DEIS schools aim to deliver educational equality to all children, particularly children living in disadvantaged communities (Department of Education and Skills, 2005).

Middle Childhood

A key stage in a child's development, typically between the ages 6 to 12, when children develop skills for building healthy social relationships and prepare them for reaching adolescence (Tomonari, 2022).

Non-DEIS

Schools that are not located in disadvantaged communities.

Summer holiday lockdown

The months of July and August 2020, during the summer holiday period when in Ireland, everyone was enforced to reduce social contacts, including usual activities, restaurants and parties, and restrict travel.

Wellbeing

As part of this current research, is defined as a positive experience and perception of life (National Center for Chronic Disease Prevention and Health Promotion, 2018)

References

Al-Mansoori, R., Kayan-Fadlelmula, F., & Abdeen, D. (2017, September). Implementing Positive Education in a Preparatory School: A Case Study from Qatar. *International Journal of Information and Education Technology, 7*(9). Retrieved from https://pdfs.semanticscholar.org/7957/332d731080b00da00e55bb46cfe285951ca9.pdf

Bronfenbrenner, U. (1979). *The ecology of human development: experiments by nature and design.* Cambridge: Harvard Univeristy Press.

CASEL. (2022). *About CASEL*. Retrieved from www.casel.org: https://casel.org/about-us/

Cefai, C., Bartolo, P. A., Cavioni, V., & Downes, P. (2018). *Strengthening Social and Emotional Education as a core curricular area across the EU. A review of the international evidence, NESET II report,*. Luxembourg: Publications Office of the European Union. https://doi.org/10.2766/664439

Department of Education and Skills. (2005). *DEIS: An Action Plan for Educational Inclusion.* Dublin: Department of Education. Retrieved from https://assets.gov.ie/24465/40677432ed49418d8c27bfb524f12a7b.pdf

Nixon, E. (2021). *Growing Up in Ireland: Social-emotional and behavioural outcomes in early adolescence.* Dublin: Department of Children, Equality, Disability, Integration and Youth.

Seligman, M. (2011). *Flourish.* New York: Atria Paperback.

Sullivan, A. K. (1999). The emotional intelligence scale for children. *Online Archive of University of Virginia Scholarship*. Retrieved from https://libraetd.lib.virginia.edu/public_view/5m60qs36s

Tomonari, R. (2022). *Stages of Growth Child Development.* New York: Education Encylopaedia.

Vygotsky, L. (1978). *Mind In Society.* (M. Cole, V. John-Steiner, S. Scribner, & E. Souberman, Eds.) Harvard: President and Fellows of Harvard College.

Wang, Y., Yang, Z., Zhang, Y., Wang, F., Liu, T., & Xin, T. (2019). The Effect of Social-Emotional Competency on Child Development in Western China. *Frontiers in Psychology, 10*. https://doi.org/10.3389/fpsyg.2019.01282

Wheeler, J. (2008). The impacts of social environments on emotional, social, and cognitive competency development. *Journal of Management Development, 27*(1), 129-145. https://doi.org/10.1108/02621710810840802

Chapter 2: Systematic Literature Review

This systematic literature review has not yet been submitted for publication.

Do School-Based Social and Emotional Learning Programmes Improve Primary School Teachers' and Children's Self-Efficacy? A Systematic Literature Review

Abstract

Self-efficacy is an important resource that children and adults can develop at any stage of their lives, with school providing a key opportunity to build self-efficacy. While many SEL programmes aim to empower teachers to enhance the social and emotional skills of their students, research has mostly looked at the effects on the students, rather than looking at the effects on the teachers teaching these programmes. In response to the need for more research on the impact of SEL programmes on the self-efficacy of teachers and students, this systematic literature review searched and synthesised the available literature on this topic. Three studies met inclusion criteria, with two measuring student self-efficacy, and one measuring teacher self-efficacy as an outcome. Data were insufficient to ascertain conclusive results, however the findings suggest that SEL programmes may improve student and teacher self-efficacy, with all three research studies indicating improvements following a SEL programme. More research investigating the impact of SEL programmes on teacher and student self-efficacy is needed. The potential outcome of the SEL programmes and their impact on teachers' and children's self-efficacy are discussed.

Keywords

Social and emotional learning; self-efficacy; teachers; students; primary school.

Introduction

Children's social and emotional competencies are proposed to be central to their educational success (Durlak et al. 2011; Taylor et al. 2017). However, in recent years there has been an increase in the social and emotional difficulties experienced by children and teenagers (Centre for Educational Research and Innovation, 2020; Olfson et al. 2015). A response from the education sector has been to implement universal school-based social and emotional learning (SEL) programmes. SEL programmes teach students how to understand and manage their emotions, how to set and achieve positive goals, understand and utilise feelings of empathy for others, build and maintain positive relationships, and realise the importance of responsible decision making (CASEL, 2022). The relatively new term, SEL, has become central to conversations about teaching and learning, with a growing body of research indicating that SEL programmes have a positive impact on children's social, emotional, and academic development (Corcoran et al. 2018; Durlak et al. 2011).

The CASEL framework for social and emotional learning consists of five key social and emotional competencies: self-management, self-awareness, social awareness, relationship skills and responsible decision-making (CASEL, 2022). These social and emotional competencies, along with the fundamentals of SEL are underpinned by many aspects of positive psychology, with an emphasis on creating positive emotions and positive relationships. It was Maslow (1954) who first coined the term positive psychology, with his focus on human strengths; followed by Seligman (2011) continuing research on positive psychology, and scientifically studying the effects of positive emotions and positive relationships, confounding much research indicating that happiness can be taught and learned. It is this connection between positive psychology and SEL that provides relevance to this current research, impacting on who to measure and which outcomes. Durlak et al., (2011) states that much research measuring the impact of SEL programmes, utilises the five SEL

competencies, mentioned above. For children to effectively deploy and develop these competencies, they need to believe, to some extent, that they can make friends, resolve social conflicts, and effectively manage their emotions. This puts self-efficacy—our optimistic belief that our actions are possible and will be successful (Akhtar, 2008)—at the heart of social and emotional learning.

In the classroom setting, children with higher self-efficacy are also found to have greater academic performance (Ansong et al. 2019). Self-efficacy also helps teachers teach more effectively, and when teachers have higher self-efficacy, they model self-efficacy to their students (Barni et al. 2019). Potentially, learning about social and emotional competencies during SEL programmes can help students and teachers improve their own self-efficacy, when they find themselves managing their lives more effectively as a result of the SEL programmes. Self-efficacy has already been demonstrated to positively impact individual's social and emotional competencies (Yao et al. 2019), however the impact of SEL on self-efficacy in return has more rarely been studied. Therefore, the main objective of the current research is to systematically identify and synthesise the empirical research on the impact of SEL programmes on the self-efficacy of school children and teachers, to identify whether learning about social and emotional competencies can also help to make people feel more confident in themselves.

Social and Emotional Learning (SEL)

SEL has been defined as the development of skills such as self-awareness, self-control and other interpersonal skills which are important for school, work, and overall success in life (Commitee for Children, 2020). The term 'social and emotional learning' was developed in 1994 during a meeting hosted by the Fetzer Institute consisting of researchers, educators, and advocates for children from multiple education-based positive child development organisations (CASEL, 2022). In this meeting, SEL was brought about as a framework to

help young people; and assist in the coordination of school programmes (CASEL, 2022). However social and emotional learning as a concept has been around since ancient Greece, when Plato proposed a holistic curriculum, with a balance of teaching including teaching character and moral judgement (George Lucas Educational Foundation, 2011). It was through James Comer piloting his school development programme in the 1960s and research in the 1980s, that the concept began to grow in popularity, with research showing the impact of social and emotional learning on children's whole school performance (George Lucas Educational Foundation, 2011). Then, Daniel Goleman's (1995) book on Emotional Intelligence really propelled the concept into modern culture, leading to CASEL then driving the movement to where it is today (George Lucas Educational Foundation, 2011).

The Importance of SEL Programmes for Child Wellbeing

Schools are one of the most important settings for promoting wellbeing among children and adolescents. Improving children's wellbeing is important because it can ultimately lead to better educational outcomes and increase young people's life chances (NCCA, 2017). Seligman (2011, p. 80) states that wellbeing is an antidote to depression and that the competencies for achieving wellbeing should be taught in school. Schools have a unique responsibility for promoting children's wellbeing and can do so through the implementation of age-appropriate personal development and mental health courses (European Network of Ombudspersons for Children, 2018), such as SEL programmes.

Durlak et al., (2011) conducted a meta-analysis of school-based SEL programmes; and found that children participating in effective SEL programmes had significant improvement in social and emotional skills, attitudes, behaviour, and academic performance. Payton et al., (2008) also noted the positive impact of SEL programmes in their integrative review of the literature. Payton et al., (2008) observed that SEL programmes had a positive impact on students' social and emotional skills, attitudes about themselves and others,

connection to school, positive social behaviour, and academic performance. The authors also observed that SEL programmes could reduce children's conduct problems and emotional distress and were effective for children with and without behavioural difficulties (Payton et al. 2008). Furthermore, school staff introduced and taught these programmes effectively, indicating that they can be incorporated into routine educational practice (Payton et al. 2008).

It is important to note that students who have higher levels of wellbeing tend to have better cognitive outcomes in school (Centre for Education Statistics and Evaluation, 2015). This link may relate to the positive impact of children's emotional, social, and behavioural functioning on their academic performance (Smyth, 2015). A recent systematic review explored the research on the effects of school-based SEL programmes on academic achievement and found that the programmes had a positive impact on reading and maths (Corcoran et al. 2018). These findings are in line with views from the World Health Organisation (2004) who have called for children's mental, emotional and social health, to be promoted in unison with having high standards for children's achievement. The evidence suggests that students learn more effectively, both academically and socially, if they feel happy in their work, have self-belief, and feel support from their school and their teachers (Weare, 2015).

Social and Emotional Learning Programmes and Self-Efficacy

The concept of self-efficacy was first proposed by Albert Bandura, who described self-efficacy as a person's judgement of their capability to execute a course of action necessary for managing prospective situations (Bandura, 1977). In more recent years, Ackerman (2020) has defined self-efficacy as a person's overarching belief in their own ability to succeed. In Bandura's (1977) perspective, self-efficacy influences an individual's choice of activities, setting of goals, and behaviour initiation, meaning that self-efficacy can underpin the amount of effort a person makes to overcome obstacles and adverse experiences (Lippke, 2017).

Self-efficacy is important for children because it allows children to be resourceful, gain knowledge and solve problems to influence events that affect their lives (Butcher & Pletcher, 2015). Being more efficacious can help children effectively manage some of the challenges of formal learning (Hinton, 2020). SEL programmes are proposed to increase self-efficacy in children, which is then proposed to fuel their motivation to learn and academic achievement (Hinton, 2020). Triantoro (2013) found that students with high self-efficacy obtained higher scores on a maths problems test, with further analysis of the students' responses showing that the students who scored higher in self-efficacy also indicating plans to study more difficult subjects in the future (Triantoro, 2013). In schools, many factors can contribute to changes in children's self-efficacy, including SEL, the learning environment and method of teaching (Kirk, 2020).

Self-efficacy is equally important for teachers as it is for children. Teachers' self-efficacy contains a range of beliefs regarding their capacity to teach and the positive impact of their teaching on students' learning, which is then connected to the pattern of behaviour that teachers may show in classrooms (Achurra & Villardón, 2012). In recent decades, interest in researching teacher self-efficacy has grown, with studies finding that self-efficacy in teachers predicts teacher wellbeing and student motivation, engagement, and achievement (Mo Ching Mok & Moore, 2019). Kirk (2020) states that teachers with higher self-efficacy may also be more capable of rebounding from setbacks and could be more willing to try out new ideas and techniques. Accordingly, Kennedy (2016) noted that teachers with higher self-efficacy were more likely to set challenging goals, persist in challenging situations, and show greater collaboration with their colleagues and their students' parents (Kennedy, 2016).

Much research, including a number of reviews, have indicated positive correlations between teacher's self-efficacy and teacher well-being, student motivation, student engagement, student achievement, teacher effectiveness and student self-efficacy (Mo Ching

Mok & Moore, 2019). With research indicating the value of teacher self-efficacy, it is equally important to research ways of improving teacher self-efficacy. As discussed earlier, SEL as outlined by the CASEL framework (2022), is underpinned by five competencies. These mechanisms behind SEL, specifically the teaching of self-management, self-awareness, social awareness, relationship skills and responsible decision making, may actually impact on and increase a teacher's self-efficacy. Through teaching SEL, teachers learn valuable social and emotional skills, gaining insight into managing and understanding their own emotions and how to have positive relationships and social interactions. In teachers learning these SEL skills, this in turn should enable them to function better socially and emotionally themselves. With teachers improving their own social and emotional functioning, they should gain confidence in their teaching and improve their self-efficacy, which in-turn would benefit their students.

Objectives

This systematic literature review adds to the current research on SEL programmes, where self-efficacy is understudied but is an important component of the broader system of teacher and student social and emotional functioning in classrooms. Specifically, this review identifies whether the malleable resource of self-efficacy can be developed through the implementation of SEL programmes. The review considers how SEL programmes can impact the self-efficacy of teachers and children, given the importance of self-efficacy for children's learning and teachers' pedagogical effectiveness. A systematic literature review on this topic is needed, to give an overview of the available research in the field and to identify whether SEL programmes are effective in improving the self-efficacy of teachers and children. Two research questions are used to focus the review. One: do school-based social and emotional learning programmes improve primary school children's self-efficacy? Two: do school-based social and emotional learning programmes improve primary school teachers' self-efficacy?

Search Methods

The review methods were informed by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. The PRISMA checklist gives clear guidelines on the step-by-step phases to be followed for a systematic literature review (Moher et al. 2010). The PRISMA flow diagram was used to aid identification, screening, eligibility and inclusion of papers for the review (Moher et al. 2010).

Selection Criteria: Inclusion and Exclusion Criteria

Study Designs

Quasi-experimentally designed studies, cluster randomised controlled trials (CRCT), randomised control trials (RCT), and experimental designs were included. It was felt these types of study designs provide the most reliable and valid results, with use of a control group as a comparative measure.

Participants

Age is an important consideration when reviewing SEL programmes. This is because SEL programmes aim to teach very different outcomes for children of primary school age compared to that of secondary school children or early childhood education. This review focused on children of primary school age, being between 5 and 12 years old. This age group was selected due to the relevance of SEL for middle childhood. Samples of younger children and adolescents were excluded.

Results

The studies included in this review had to have data on children and/or teachers' self-efficacy that were generated through direct report from the children or teachers. Reports on self-efficacy of individuals that were made by other people (e.g., parents reporting on children's self-efficacy) were excluded. This was done to avoid including results that might

reflect an expectancy bias from observers (such as parents) who are not accurately rating the self-efficacy of other individuals. Qualitative results were excluded from this study to maintain a focus on the measurable impact of the SEL programmes.

Interventions

The interventions included in this review are social and emotional learning programmes that aim to improve social and/or emotional skills for children. Most SEL programmes continue for a minimum of 8-weeks, with some continuing for longer (Corcoran et al. 2018). A very small number of SEL programmes may have a shorter duration, which would be ineffective and reduce positive effects for the children and teachers (Corcoran et al. 2018). Therefore, the programmes included in this review were delivered in school for a minimum of 8-weeks. Studies included were school-based SEL programmes to maintain a focus on school children and classroom teachers. The studies included in this review also had to include a control or comparison condition, as this provides more reliable and valid results.

Studies were excluded if the study did not measure the impact on the teachers' and/or children's self-efficacy. Mindfulness interventions were excluded from this review, because even though they include skills that aid in a child's social and emotional functioning, they do not directly teach social and emotional skills, as outlined by the CASEL framework competencies described earlier.

Search Strategy

In June and July 2020, I searched the electronic databases of PsycInfo, ERIC, Social Sciences Premium Collection, Education Collection, and the Australian Education Index (all in ProQuest), and Scopus. I also searched the grey literature available online from What Works Wellbeing, The Education Endowment Foundation, World Health Organisation, Google Scholar, the Department of Education & Skills, and the Educational Studies Association of Ireland, to identify peer reviewed studies or reports that might not be in the

ProQuest and Scopus databases. Dissertations and theses were not included in the search to maintain a focus on high quality, peer reviewed, scholarly publications. All documents had to be published in English, and there was no date limiter set to enable more publications to be found.

Search String

In ProQuest and Scopus, all titles, abstracts, and keywords were searched using the following terms: ("primary school" OR "elementary school" OR "middle school") AND ("positive psychology" OR “emotional learning" OR “social learning” OR SEL OR "well-being" OR "well being" OR wellbeing OR “social skills” OR “emotional skills” OR resilience OR coping) AND (intervention* OR programme* OR treat*) AND AB,TI,IF(“self-efficacy” OR “self efficacy”).

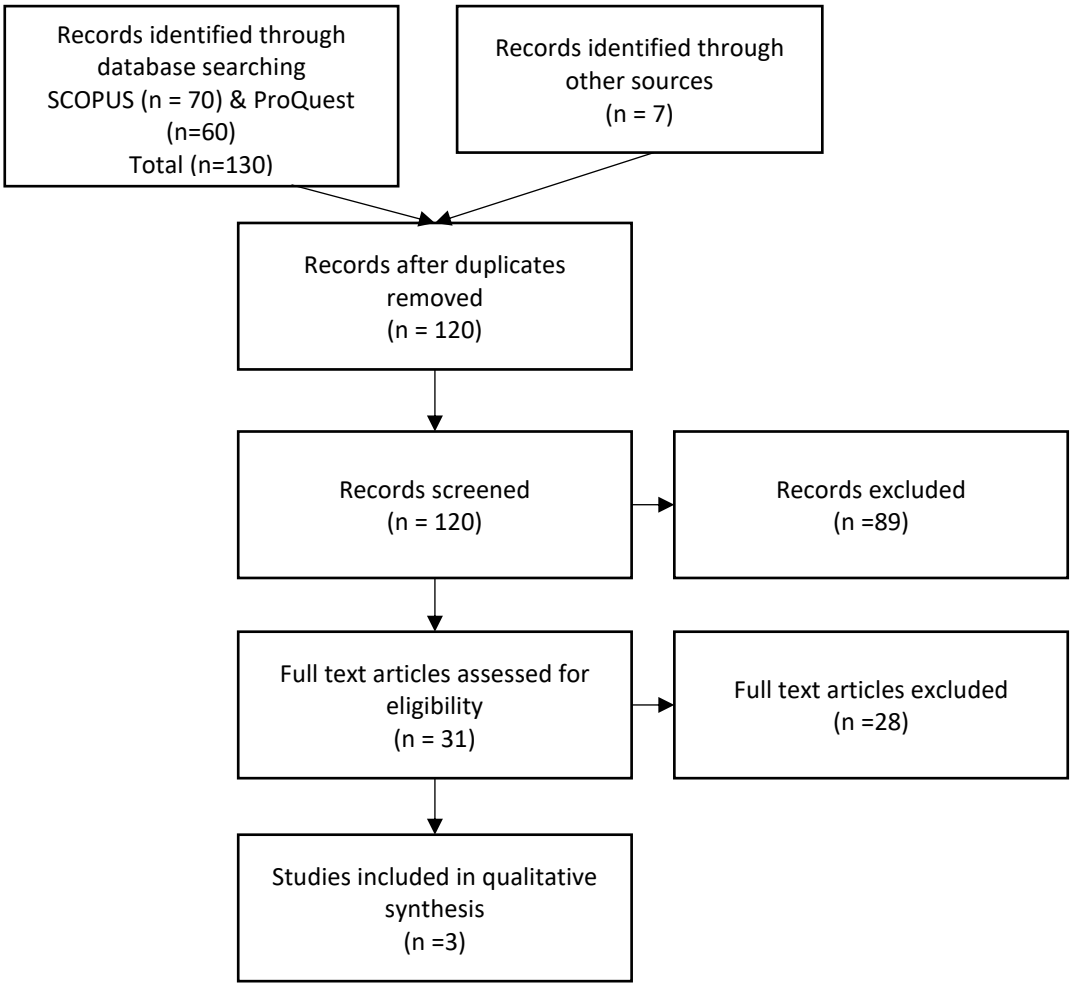
Screening and Selection Process

Using the search strategy described above, 60 records were returned by ProQuest and 70 records were returned by Scopus. In addition, I identified 7 records using the websites that were potential candidates for inclusion. After removing duplicates, 120 records remained for title and abstract screening. The titles and abstracts were screened using the inclusion/exclusion criteria described above. After screening I excluded 89 records. Many of the records were unrelated to my topic, some did not contain information on SEL programmes, and some were aimed at younger children or adolescents. I was left with 31 records for full text screening. It was possible to retrieve all the 31 publications. After full text screening, I excluded 28 publications based on my inclusion and exclusion criteria. Five publications were excluded because they did not include a programme, five of these were excluded because the programme was not related to social and emotional learning, six of these were excluded because they were not school-age children, they were adolescents or younger children, and ten of these were excluded because they did not have self-efficacy as

an outcome. A further two were excluded because they were research study protocols and did not have any findings to report. This left me with three suitable publications to include in the review. The screening process is summarised in a PRISMA diagram (Figure 1).

Figure 1.

PRISMA Diagram



Quality Appraisal

The quality of the studies was measured using the CASP checklist (Critical Appraisal Skills Programme, 2020). The Critical Appraisal Skills Programme (2020) sets out eight critical appraisal tools, which are designed to use when reading research. The checklist most suitable for this systematic review and therefore used to critically appraise the three articles found was the Randomised Controlled Trial checklist. It was adapted slightly to include the quasi-experimental studies. The CASP checklist contains eleven questions and is used to gain

a quality rating score for the articles. Based on the questions in the CASP checklist, an overall quality rating was assigned. All studies were of relatively high quality (72 – 90%) therefore all were used in the review.

Data Extraction

After assessing study quality, I extracted data on the study characteristics to give an overview of the research and to contextualise the results. These data were (i) study setting (i.e., primary school or elementary school); (ii) study design (i.e., RCT or experimental design); (iii) sample size (i.e., number of teachers and students); (iv) SEL programme used; (v) outcome (i.e., self-efficacy); (vi) outcome measure (i.e., self-efficacy scale (Carpara, 2001)); and (vii) results and findings. Next, I extracted data to answer my research questions on the impact of the SEL programmes on child and/or teacher self-efficacy: (i) SEL programme used; (ii) self-efficacy results for teachers; (iii) self-efficacy results for students. I extracted the quantitative results of the statistical analysis testing the change in self-report teacher and student self-efficacy.

Data Synthesis

Due to the variety of different SEL programmes found in this review, it was not possible to meaningfully pool data for a meta-analysis from the three studies that looked at the impact of SEL programmes on teacher and student self-efficacy. Therefore, I used a narrative approach to summarise the data from each study. I explored patterns identified across the results and discussed the possible factors that might explain the small, medium, and large improvement in self-efficacy found in the studies. I also attempted to explore possible relationships between characteristics of the three included studies and their results on self-efficacy and SEL programmes. Two studies reported positive results for student self-efficacy, and one study reported positive results for teacher self-efficacy. There were no studies that looked at both teachers' and students' self-efficacy as an outcome.

Systematic Review Results

Quality Appraisal

The first publication (Caruso et al. 2018) is a quasi-experimental study of the impact of REE training on teacher self-efficacy. This REE training is based on Rational Emotive Behaviour Therapy (REBT) (Ellis, 1973), which has been adapted for children in schools and as a programme for teachers. Using the CASP checklist, the study was scored 10 out of 11. This study addressed a clearly focused issue and assigned groups to control and intervention groups randomly. There were three separate groups, group A where students and teachers took part in the intervention, group B where students took part in the intervention, but teachers did not, and group C where neither students nor teachers took part in any intervention. It was clearly indicated whether participants were blind to the treatment, but participants were informed whether they were taking part in the intervention or not. This paper scored highly, with clear valid results and useful implications for practice. The intervention is inexpensive and showed positive results for students and teachers. It was hypothesised by the authors of the study, that training both teachers and children would have additive effects, confirmed by results of this study which indicated positive effects observed in children and teachers that took part in the intervention groups. The limitations of this study were the small sample size of teachers and the lack of follow-up questionnaires.

The second publication (DeRosier, 2004) was a randomised controlled trial of the Social Skills Group Intervention (S.S.GRIN) programme. The S.S.GRIN programme consists of cognitive behavioural and social learning techniques and is aimed at improving children's social behaviour and relationships with peers (DeRosier, 2004). The study was scored 8 out of 11 using the CASP checklist. The study addressed a clearly focused issue and participants were recruited randomly and accounted for fairly. Children were randomly assigned to a treatment group and a control group. The results were clear and reliable, and it appeared that

the benefits of introducing the programme were worth the costs. The study was not given a higher rating because it was felt that further important outcomes could have been measured. Some of these outcomes could have included peer relationships and social or emotional intelligence. It was also felt that a longitudinal study would have provided information on whether the treatment effect would continue after a longer time.

The third publication (Linares et al. 2005) was a quasi-experimental study of the Unique Minds SEL programme. This study was scored 9 out of 11. The study had fair recruitment of participants and offered clear and valid results. The study was not scored higher due to some uncertainty about bias in recruitment, with the inclusion of only one school which also prevented the generalisability of results. Also, the study would have benefitted from a follow-up to further confirm the results after a certain period. The intervention is low-cost, and it is relatively easy to implement in schools. The results of the study also indicate improvements in student's learning following the intervention. Teacher's ratings of social and emotional improvements among their students did not align with ratings of a 'blind' observer in the classroom, which indicated to the researchers that there may have been some bias from the teachers, with an expectancy effect following the intervention (Linares et al. 2005). This bias does not include student self-efficacy, as this was self-reported by the students. See Table 1 for an overview of the results of the critical appraisal checklist.

Table 1.

Results of the Critical Appraisal Checklist

CASP checklist (Scoring System: Yes=1, Unsure =.5, No=0)	**Linares et al., (2005)**	**DeRosier (2004)**	**Caruso et al., (2018)**
1. Did the study address a clearly focused issue?	1	1	1
2. Was assignment to treatment randomised?	1	1	1
3. Were all participants accounted for upon conclusion?	1	.5	1
4. Were participants 'blind' to treatment?	0	0	0
5. Were groups similar at start of trial?	1	1	1
6. Aside from intervention, were groups treated equally?	1	1	1
7. Was the treatment effect high?	.5	.5	1
8. Was the estimate of treatment effect precise?	.5	1	1
9. Can results be applied to local population / generalised?	1	1	1
10. Were all clinically important outcomes considered?	1	0	1
11. Are the benefits worth the harms and costs?	1	1	1
Total score	**9 (81%)**	**8 (72%)**	**10 (90%)**

Study Characteristics

The characteristics and results of the three studies are provided in Table 2 and Table 3 below. Table 2 overviews the study titles, research question and results; and Table 3 details the authors, year, SEL programme title, number of participants (teachers and students), study method, self-efficacy measure used, data collection, analysis method, and the quality rating score.

One of the studies was described as a randomised controlled trial (DeRosier, 2004) and the other two studies were described as quasi-experimental (Linares et al. 2005) and (Caruso et al. 2018). Settings included elementary or primary schools. In all three studies, control group children participated in a business-as-usual curriculum. Two studies were conducted in the United States, and the other study was conducted in Italy. A total of 26 teachers and 711 students were captured by the studies in this review. Three SEL programmes were evaluated within the included studies: the Unique Minds School Programme (Stern, 1999), the Rational Emotive Education (REE) (Ellis, 1973), and the

Social Skills Group Intervention (S.S.GRIN) (3C Institute, 2020). Teacher training was provided for all the programmes, which were then taught to the students by their class teacher. All the programmes were led by the classroom teacher and were taught during usual school time for a minimum of 8 weeks. All programmes provided the teachers with training and support during their implementation

Table 2.

Summary of the Results of Included Studies

Research Study Title	Research Question 1 or 2	Results
1. Developing Cognitive-Social-Emotional Competencies to Enhance Academic Learning Linares et al., (2005)	1. Improve Student Self-efficacy?	Students showed a medium rate of increase in self-efficacy from Time 1 to Time 2 following intervention, compared to control group.
2. Building Relationships and Combating Bullying: Effectiveness of a School-based Social Skills Group Intervention DeRosier (2004)	1. Improve Student Self-efficacy?	Students reported a small rate of increase in self-efficacy following the intervention, compared to the control group, which reported decreases in self-efficacy.
3. Effects of a REBT based training on children and teachers in primary school Caruso et al., (2018)	2. Improve Teacher Self-efficacy?	Teacher self-efficacy showed a high rate of improvement from pre to post intervention scores, only in the intervention group.

Table 3.

Characteristics of Included Studies

Author, Year & Country	Intervention & Training	Theoretical Framework	Research Design	Sample & Participants	Data Collection	Results	Quality Rating
Caruso et al., (2018), Italy.	Rational Emotive Education (REE), structured lessons. Children 1. Storytelling 2. 8 x 1 hour sessions over 2 months Teacher Training 1. 8 x 1 hour sessions over 5 months	Based on Rational Emotive Behaviour Therapy (REBT). Teaching students an emotional vocabulary and ABC model of thinking, to conceptualise relationships between thinking, feeling and behaving. Rational thoughts rather than positive thoughts. Promoting self-acceptance, high frustration tolerance, and acceptance of others.	Pre and Post Test Quasi-Experimental Design. 3 Groups Group 1: 68 children, 8 teachers, 3 classes, T&S training. Group 2: 78 children, 8 teachers, 3 classes, S training only. Group 3: 65 children and 10 teachers, 3 classes Control no training.	Voluntarily participated in the study. Students N= 211 Grade 3 Mean Age = 9yrs F=104 M= 107 Teachers N=26 Mean Age 48.5yrs F= 25 M= 1 9 classes involved. Each class assigned to one of three different groups, 2 experimental groups and one control group (receiving different training).	Student measure 1. Children's survey of rational beliefs form B (Di Pietra, 1992). Teacher Measure 1. Teacher Questionnaire using Self Efficacy Scale (Capara, 2001).	Self-efficacy improved for teachers who received training. (Effect sizes: Children and teachers training = -0.99, Children training = -1.07, No training = -0.14)	10/11

Author, Year & Country	Intervention & Training	Theoretical Framework	Research Design	Sample & Participants	Data Collection	Results	Quality Rating
DeRosier (2004), North Carolina, USA.	S.S.GRIN (Social Skills Group Intervention) A highly structured manualised programme. Aimed at improving children's peer relationships and social behaviour, including social responsibility training.	Combines social learning and cognitive behavioural techniques. Sessions include didactic instruction combined with active practice, example, role playing, modelling, hands on.	Randomised Control Trial	11 public elementary schools. 381 students (Mean Age 8.6). 3rd Grade Randomly assigned to treatment group (n=187) and control group (n=194).	Self-report student measure of self-efficacy (20-items) (Ollendick & Schmidt, 1987). Other outcomes also measured: Peer-report measures of liking, disliking, aggression, victimization. Self-report measures of self-esteem, self-efficacy, outcome expectancy, social anxiety, depression, peer rejection, bullying, antisocial affiliates, victimisation, social withdrawal, leadership.	Treatment group reported higher self-esteem (Effect size = .21) and self-efficacy (Effect size = .21). Effect sizes were moderate, but significant given relatively short inexpensive treatment design.	8/11

Author, Year & Country	Intervention & Training	Theoretical Framework	Research Design	Sample & Participants	Data Collection	Results	Quality Rating
Linares et al,. (2005), New York, USA.	The Unique Minds School Programme – Manualised. Weekly lessons of approx. 30 mins each delivered by classroom teacher. Teachers trained by 2 hr formal training workshop, 45 mins sessions throughout the year (6.2hr in total). Teacher-led programme designed to promote cognitive-social-emotional skills.	Integrates concepts and strategies from narrative therapy, biopsychosocial integrative approaches, and general systems theory.	Quasi-experimental During 2 consecutive years, Autumn and Spring of Grade 4 and then again in Spring of Grade 5. 2 groups. Treatment group and comparison group. Group 1 6 classes took part in intervention. Group 2 7 classes business as usual.	N=119 Students. (n=57 in intervention group) (n=62 in comparison group). Mean age (9-11yrs) Participating schools were within 20 blocks of each other, were regarded as similar in many ways.	Three time points. Quantitative: Student self-report of self-efficacy – The Morgan-Jinks Student Efficacy Scale (MJSES; Jinks & Morgan, 1999). Qualitiative: Interviewers rating of problem solving skills.Teacher ratings of social-emotional-behaviour. Teacher Observation of Classroom Adaptation-Revised (TOCA-R Greenberg, 1994) Blind ratings of classrom climate – Classroom Observation Rating Scale (CORS).	Student ratings of self-efficacy showed significant increase from baseline to year 1 and from year 1 to 2. Effect size = .55 Gains were also found in problem solving, social-emotional competencies and math grades.	9/11

*BAU = Business As Usual, *RCT = Randomised Controlled Trial *SR=Self-Report *PR=Peer Report students *S=Students *T=Teachers

Answer to Research Question One

Do school-based social and emotional learning programmes improve primary school children's self-efficacy? The impact of SEL programmes on children's self-efficacy was examined by two studies, the S.S. GRIN study (DeRosier, 2004) and the Unique Minds School Programs study (Linares et al. 2005). Children's self-efficacy improved in both studies with a small and moderate effect size. Both studies contained a control group, with the only difference for the control groups being the lack of intervention. Additionally, DeRosier (2004) found that the control group of students who did not take part in the S.S.GRIN programme reported a decrease in self-efficacy from Time 1 to Time 2. Although the effect sizes were modest, they are meaningful given the relatively short and inexpensive intervention (DeRosier, 2004). The studies were both published in the mid-2000s which indicates a possible surge of interest in this topic around this time.

Answer to Research Question Two

Do school-based social and emotional learning programmes improve primary school teachers' self-efficacy? The REE study (Caruso et al. 2018) examined the impact of SEL programmes on teachers' self-efficacy. The study indicated a significant improvement in teacher self-efficacy from pre to post intervention scores, only in the intervention group. This study also contained a control group, with the only environmental difference being the lack of intervention.

Discussion

A large body of research highlights the benefits of SEL for children's emotional, social, and academic development (Corcoran et al. 2018; Durlak et al. 2011). More evaluations of SEL programmes that target both teacher and child outcomes are needed. While SEL has been found to improve many outcomes for teachers and students, it was thought that self-efficacy is a very

important factor that is vital for school success and overall life success. Self-efficacy is a skill that can be learned and developed in children and adults, through mastery and through visually experiencing self-efficacy by social models around us (Bandura, 1977). The objectives of the current systematic literature review were to identify and synthesise the research on the impact of SEL programmes on the self-efficacy of school children and teachers. After a systematic search of ProQuest and Scopus databases, title and abstract screening, and full text screening, three studies met inclusion criteria. All three studies were of reasonably high quality, all scoring over 70% on the CASP checklist. None of the studies measured the impact of SEL programmes on school children and teachers simultaneously. Key findings were that in the three studies that met inclusion criteria, experimental groups of children and teachers reported increases in self-efficacy relating to their experience of the SEL programmes.

SEL and School Children's Self-Efficacy

The first key finding of this review was that school children's self-efficacy improved after experiencing a SEL programme, whereas this was not identified for control groups of students who did not receive the SEL programme. Although there were only two publications in this category, they had a relatively large, combined sample size of 500 children. The research study that investigated the S.S.GRIN programme indicated moderate improvements in student self-efficacy (DeRosier, 2004). This programme covers many skills such as communication, taking perspective, controlling impulses, cooperating, managing conflict, showing empathy and many more (3C Institute, 2020). It is difficult to ascertain exactly what aspects of the programme may have targeted the self-efficacy of the students taking part, which is an area for further research. The research study looking at the Unique Minds school programme found significant improvements in student self-efficacy (Linares et al. 2005). This programme provides tools that

aid in increasing self-esteem, which clearly enhance the self-efficacy of the students taking part (Stern, 1999). The results of these two studies would confirm previous research indicating the impact of SEL on enhanced student's self-efficacy. Weissberg et al., (2016) lists enhanced self-efficacy as just some of the short-term and long-term benefits of SEL. Dinther et al., (2011) state that the results of a previous review found that educational programmes, particularly ones based on social cognitive theory, showed successful outcomes for student self-efficacy.

SEL and Teacher Self-Efficacy

One study that emerged from this search investigated the impact of a SEL programme on teacher self-efficacy. This study indicated a significant improvement in teacher self-efficacy following the introduction of the REE training on teacher self-efficacy (Caruso et al. 2018). For this programme, the teachers took part in training, which was carried out twice per month over a five-month period. Each training session lasted for one hour and was conducted by three cognitive behavioural psychotherapists (Caruso et al. 2018). The teacher was then provided with a teacher's manual, which consists of a structured series of mental health lessons. These lessons contain critical thinking and problem-solving methods, which could also benefit the teacher taking part (Knaus, 2006). Husband & Chong (2011) discuss Albert Bandura's social learning theory, describing the importance of modelling behaviours for one's own learning. Accordingly, by modelling critical thinking and problem-solving skills from the SEL programme, teachers might also learn more about those skills. Teacher self-efficacy is one of the factors influencing a teacher's ability to support children's social and emotional development. These findings, however, were limited so it is difficult to corroborate these results. These findings are interesting and relevant, given the importance of social and emotional support for teachers to prevent teacher burnout (Rankin, 2016).

Strengths & Limitations

To my knowledge, this is the first systematic review to consider the impact of school-based SEL programmes on the self-efficacy of primary school children and their teachers. This meets a need for more research on this important topic. However, the review has its limitations. While the studies emerged as moderate to high quality and all employed comparison groups and valid scales, they varied in the type of SEL intervention explored. There was also a variety of study methods and measures used, which creates difficulty when comparing results across studies. Continued exploration of the linkages between school-based SEL programmes and teacher and student self-efficacy is required. There is also a shortage of research on the role of teacher training in SEL programmes for shaping teacher self-efficacy. Finally, because the research designs were short-term repeated measure studies, there was no evidence on whether the positive impacts on self-efficacy were sustained, so it is unclear as to whether these effects from the SEL programmes might have persisted. Longitudinal studies would be beneficial to affirm the results following the SEL programmes. This review is strengthened by the clear and pre-specified research questions, a comprehensive and systematic literature search and screening procedure, careful data extraction, and rating of study quality using a reliable and valid quality assessment tool. However, the exclusion of studies that were reported in other languages than English, and the exclusion of unpublished materials such as dissertations and theses, means it is possible relevant studies may have been missed. There is also an element of bias in this systematic literature review, as it was carried out by a single researcher.

Conclusion

The findings of this systematic literature review suggest that introducing school-based SEL programmes to primary schools may increase self-efficacy for school children and teachers. However, because only three studies were found, there is not enough evidence to make a firm conclusion on the benefits of SEL programmes for child and teacher self-efficacy. Also, there was a lack of information on whether the positive impact of the programmes was long lived. Due to the diversity in the design of the SEL programmes, it was not possible to identify common programme features that might have promoted the observed increases in self-efficacy. Due to the increasing evidence on the importance of teacher self-efficacy to enhance students' overall learning, and of the importance of children's self-efficacy for wellbeing and learning outcomes, it is vital that more research in this area is conducted.

References

3C Institute. (2020). *S.S.GRIN*. Retrieved from https://www.3cisd.com/portfolio/featured-product-1/\

Achurra, C., & Villardón, L. (2012). Teacher' Self-Efficacy And Student Learning. *The European Journal of Social & Behavioural Sciences, 2*(2), 366-383. https://doi.org/10.15405/FutureAcademy/ejsbs(2301-2218).2012.2.17

Ackerman, C. E. (2020). *What is self-efficacy theory in psychology?* Retrieved from https://positivepsychology.com/self-efficacy/

Akhtar, M. (2008). *Sources of Efficacy Beliefs*. Retrieved from www.positivepsychology.org.uk: http://positivepsychology.org.uk/self-efficacy-definition-bandura-meaning/

Ansong, D., Eisensmith, S., Okumu, M., & Chowa, G. (2019). The importance of self-efficacy and educational aspirations for academic achievement in resource-limited countries: Evidence from Ghana. *Journal of Adolescence, 70*, 13-23. https://doi.org/10.1016/j.adolescence.2018.11.003

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191-215. https://doi.org/10.1037/0033-295X.84.2.191

Barni, D., Danioni, F., & Benevene, P. (2019). Teachers' Self-Efficacy: The Role of Personal Values and Motivations for Teaching. *Frontiers in Psychology*. https://doi.org/10.3389/fpsyg.2019.01645

Butcher, K., & Pletcher, J. (2015). *Self-efficacy is important to your young child – Part 1*. Retrieved from Michigan State University: https://www.canr.msu.edu/news/self_efficacy_is_important_to_your_young_child_part_1

Caruso, C., Angelone, L., Abbate, E., Ionni, V., Biondi, C., Di Agostino, C., Mezzaluna, C. (2018). Effects of a REBT based training on children and teachers in primary school. *Journal of Rational-Emotive & Cognitive-Behavior Therapy, 36*(1), 1-14. https://doi.org/10.1007/s10942-017-0270-6

CASEL. (2022). *Fundamentals of SEL*. Retrieved from www.casel.org: https://casel.org/fundamentals-of-sel/

Centre for Educational Research and Innovation. (2020). *Educating 21st Century Children.* United States of America: Organisation for Economic Cooperation and Development. Retrieved from https://www.oecd-ilibrary.org/sites/3b7cb397-en/index.html?itemId=/content/component/3b7cb397-en

Commitee for Children. (2020). *What Is Social-Emotional Learning?* Retrieved from www.cfchildren.org: https://www.cfchildren.org/what-is-social-emotional-learning/

Corcoran, R. P., Cheung, A. C., Kim, E., & Xie, C. (2018). Effective universal school-based social and emotional learning programs for improving academic achievement: A systematic review and meta-analysis of 50 years of research. *Educational Research Review, 25*, 56-72. Retrieved from https://www.sciencedirect.com/science/article/pii/S1747938X17300611

Critical Appraisal Skills Programme. (2020). *CASP Checklists*. Retrieved from www.casp-uk.net: https://casp-uk.net/casp-tools-checklists/

DeRosier, M. (2004). Building Relationships and Combating Bullying: Effectiveness of a School-Based Social Skills Group Intervention. *Journal of Clinical Child and Adolescent Psychology*, 1537-4424. https://doi.org/10.1207/S15374424JCCP3301_18

Dinther, M., Dochy, F., & Segers, M. (2011). Factors affecting students' self-efficacy in higher education. *Educational Research Review, 6*(2), 95-108. https://doi.org/10.1016/j.edurev.2010.10.003

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The Impact of Enhancing Students' Social and Emotional Learning: A Meta-Analysis of School-Based Universal Interventions. *Child Development, 82*(1), 405-432. https://doi.org/10.1111/j.1467-8624.2010.01564.x

Ellis, A. (1973). Emotional education in the classroom: The Living School. *Journal of Child Psychology, 1*, 19-22. https://doi.org/10.1080/15374417209532476

European Network of Ombudspersons for Children. (2018). *Child and Adolescent Mental Health in Europe.* Paris: ENOC. Retrieved from http://enoc.eu/wp-content/uploads/2019/06/Rapport-ENOC-ENG-NUM-17.06.19.pdf

Frezza, D. (2018). *Four Reasons Why Students—and Teachers—Need SEL Embedded Into School All Day, Every Day*. Retrieved from www.edsurge.com: https://www.edsurge.com/news/2018-09-04-four-reasons-why-students-and-teachers-need-sel-embedded-into-school-all-day-every-day

George Lucas Educational Foundation. (2011). *Social and Emotional Learning: A Short History*. Retrieved from www.edutopia.org: https://www.edutopia.org/social-emotional-learning-history

Hinton, K. (2020). *Why Self-Efficacy is Critical to Learning*. Retrieved from www.apertureed.com/: https://apertureed.com/why-self-efficacy-is-critical-to-learning/

Husband, J., & Chong, I. (2011). Behaviour Modeling. *Encyclopedia of Child Behaviour and Development*. https://doi.org/10.1007/978-0-387-79061-9_307

Kennedy, Y. (2016). *Teacher perceptions of change through participation int he Incredible Years Teacher Classroom Management Programme.* Retrieved from www.incredibleyears.com: http://www.incredibleyears.com/article/teacher-perceptions-of-change-through-participation-int-he-incredible-years-teacher-classroom-management-programme/

Kirk, K. (2020, August 12). *Self-Efficacy: Helping Students Believe in Themselves*. Retrieved from www.serc.carleton.edu/: https://serc.carleton.edu/NAGTWorkshops/affective/efficacy.html

Knaus, W. (2006). *Rational Emotive Education Past, Present, And Future*. Retrieved from www.rebtnetwork.org: http://www.rebtnetwork.org/essays/rational_emotive_education_past_present_and_future.html#:~:text=Rational%20Emotive%20Education%20(REE)%20is,effective%20psychological%20problem%2Dsolving%20methods

Linares, O., Rosbruch, N., Stern, M. B., Edwards, M. E., Walker, G., Abikoff, H. B., & Alvir, J. M. (2005). Developing Cognitive-Social-Emotional Competencies. *Psychology in Schools, 42*(4). https://doi.org/10.1002/pits.20066

Lippke, S. (2017). Self-Efficacy Theory. *Encyclopedia of Personality and Individual Differences*. https://doi.org/10.1007/978-3-319-28099-8_1167-1

Maslow, A. H. (1954). *Motivation and personality.* Harpers.

Mo Ching Mok, M., & Moore, P. J. (2019). Teachers & self-efficacy. *An International Journal of Experimental Educational Psychology*, 1-3. https://doi.org/10.1080/01443410.2019.1567070

Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & The PRISMA Group. (2010). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *International Journal of Surgery, 8*(5), 336-341. https://doi.org/10.1016/j.ijsu.2010.02.007

Olfson, M., Druss, B., & Marcus, S. (2015). Trends in Mental Health Care among Children and Adolescents. *The New England Journal of Medicine, 372*, 2029-2038. https://doi.org/10.1056/NEJMsa1413512

Payton, J., Weissberg, R., Durlak, J., Dymnicki, A., Taylor, R., Schellinger, K., & Pachan, M. (2008). *The Positive Impact of Social and Emotional Learning for Kindergarten to Eighth-Grade Students - Findings from Three Scientific Reviews.* Chicago: Collaborative for Academic, Social, and Emotional Learning. Retrieved from https://www.casel.org/wp-content/uploads/2016/08/PDF-4-the-positive-impact-of-social-and-emotional-learning-for-kindergarten-to-eighth-grade-students-executive-summary.pdf

Rankin, J. G. (2016). *The Teacher Burnout Epidemic*. Retrieved from www.psychologytoday.com: https://www.psychologytoday.com/us/blog/much-more-common-core/201611/the-teacher-burnout-epidemic-part-1-2

Seligman, M. (2011). *Flourish.* New York: Atria Paperback.

Smyth, E. (2015). Learning in focus: Wellbeing and school experiences among 9-13-year-olds. *Insights from the Growing up in Ireland study*. Retrieved from https://www.esri.ie/publications/wellbeing-and-school-experiences-among-9-and-13-year-olds-insights-from-the-growing-up

Stern, M. (1999). *Unique Minds Program.* New York: Unique Minds Foundation Inc.

Taylor, R. D., Oberle, E., Durlak, J. A., & Weissberg, P. R. (2017). Promoting Positive Youth Development Through School-Based Social and Emotional Learning Interventions: A Meta-Analysis of Follow-Up Effects. *Child Development, 88*(4), 1156-1171. https://doi.org/10.1111/cdev.12864

Triantoro, S. (2013). Effects of Self-Efficacy on Students' Academic Performance. *Journal of Educational Health and Community Psychology, 2*(1), 19-25. Retrieved from https://www.researchgate.net/publication/263162945_Effects_of_Self-Efficacy_on_Students'_Academic_Performance

Weare, K. (2015). *What works in promoting social and emotional well-being and responding to mental health problems in schools?* Partnership for Well-being and Mental Health in Schools. Retrieved from https://www.mentalhealth.org.nz/assets/ResourceFinder/What-works-in-promoting-social-and-emotional-wellbeing-in-schools-2015.pdf

Weissberg, R., Durlak, J., Domitrovich, C., & Gullotta, T. (2016). *Handbook of Social and Emotional Learning: Research and Practice.* Guilford Press.

Yao, J., Wang, H., Yin, X., Yin, J., Guo, X., & Sun, Q. (2019). The association between self-efficacy and self-management behaviors among Chinese patients with type 2 diabetes. *PLOS ONE*. https://doi.org/10.1371/journal.pone.0224869

Zhai, F., Cybele, R., & Jones, S. M. (2015). Social and Emotional Learning Services and Child Outcomes in Third Grade: Evidence from a Cohort of Head Start Participants. *Children and Youth Services Review, 1*(56), 42-51. https://doi.org/10.1016/j.childyouth.2015.06.016

Chapter 3: Empirical Study Methodology

Chapter Overview

The empirical study in this thesis investigates how children's social and emotional functioning developed across a six-month period of school closures and nationwide lockdown in Ireland. The study also identified whether specific social interactions during the lockdown contributed to the development of children's social and emotional functioning. In this chapter, I provide an overview of the original study plan, and of how it changed due to the unexpected COVID-19 pandemic. I then discuss how I selected the measures used in the study, describing both the final measures used and the measures I was open to using at some points, but then rejected as the research progressed. Then I discuss how I constructed the social interactions questionnaire and give details on each item. Ethical assurances that were considered throughout this research study are discussed in brief in this chapter. In the final part of this chapter, I discuss the preparation of the data for regression models, including checking that the data met the assumptions for multiple regression.

Original Study Plan

My original plan for my doctoral research was to examine the effects of a social and emotional learning programme (Weaving Wellbeing) on the social and emotional skills of primary school children, from the perspectives of the children and teachers. The original study title was 'The Weaving Wellbeing programme from the perspectives of teachers and children in one non-DEIS primary school: An exploratory mixed methods case study'. With regards to this original study, full ethical clearance was obtained from University College Dublin and data collection began in February 2020. I held a meeting with all parents of students from 3rd to 6th class, alongside the creator of the Weaving Wellbeing programme, where a description of the 10-

week programme was given, along with information on the research plan, and any questions on the programme and research were answered at this point. I then offered participation to all 95 pupils in the classes mentioned above. The parents of 87 pupils gave consent for their child to take part, and assent from the pupils themselves was then obtained. I had also obtained consent from the four class teachers, who were teaching the Weaving Wellbeing programme, as this research also aimed to explore the programme from the teachers' perspectives. In advance of the Weaving Wellbeing programme beginning, the participants (N = 87) then completed the measures of social and emotional functioning in February 2020.

The children had just begun the programme and had been taught two weeks of the Weaving Wellbeing programme when the schools suddenly closed due to COVID-19 in March 2020. After discussions with my supervisor, I decided to adapt the existing research design to repurpose the crucial data that had been collected to examine children's social and emotional functioning across the unique occurrence of the unplanned school closures. I created the social interactions questionnaire to obtain information on what life may have been like socially for the children while the schools were closed. I then reapplied for ethical clearance due to the changes to the research, with a new title, a new purpose, and the additional measure, and gained ethical approval from UCD again in June 2020. I then sent new information and consent forms to the parents of the 87 participants, to inform them of the changes to the research, and then gained consent from parents and assent from the children taking part.

When the schools reopened in September 2020, the participants completed the same questionnaires as were completed in February 2020; one looking at their peer relationships and one looking at their emotional expression. At this point, the participants also completed the new

social interactions questionnaire which I had created. The data were then analysed, and details of the current study are described in the empirical journal article in chapter four.

Overview Of Measure Selection

As discussed above, my first research plan was to measure the impact of a social and emotional learning programme on children's social and emotional functioning. This required me to make a careful selection of measures to capture social and emotional functioning. Many measures were viewed as part of this research journey. The final measures were chosen due to their non-invasive nature and the specific social and emotional skills they were measuring. I was particularly interested in measures that were self-reported by the child, rather than parent or teacher report measures. Because the participants of this study were children, ethical considerations also influenced my choice of measures. I was cognisant to select measures that would not cause any undue distress or unnecessary negative thinking for the children, for example I omitted measures that contained questions around depression, anxiety, and stress. I was also interested in the validity and reliability of measures, which is key to any research study. Below I discuss the details of the measures that I reviewed, including those that were not selected and those used in the final study. I also detail my own measure created to examine the social interaction features of children's experiences of the long period of school closure and the summer holiday months that followed.

Unused Measures

The Positive and Negative Affect Schedule-Child Form (PANAS-C). The PANAS-C (Laurent et al. 1999) measure was sourced for review, with permission obtained for use from the creators of this measure in October 2019. The PANAS-C is a self-report questionnaire, which can be used to measure the child's emotions in recent weeks. The measure is divided into

subscales: positive affect and negative affect. The pupils are asked to read many descriptive words for feelings and emotions, and they then circle a number that corresponds to the value on a scale (PhenX Toolkit, 2019). This measure is suitable for children between the ages of 8 and 14 and can be completed with the assistance of an adult supporting them (teachers or parents).

Initially I included this measure in my original ethics application, but upon reflection I felt that this measure focused more on how the child is feeling within momentary time (i.e., emotional state), rather than on their typical emotional functioning. For this reason, I searched for an alternative measure of children's typical emotional functioning.

The School Children's Happiness Inventory (SCHI) (Ivens, 2007). The SCHI (Ivens, 2007) is a self-report questionnaire suitable for children aged between 8 and 15 years. It focuses on the child's experience in school over the previous week (Fredrickson & Dunsmuir, 2009). This measure is noted to be useful in assessing whether interventions work to improve child subjective wellbeing when comparing baseline to follow-up scores (Fredrickson & Dunsmuir, 2009). This measure included questions such as, 'I feel tired', 'I felt positive', and 'I had headaches'.

When reflecting on the potential for using this measure, I felt that it may be difficult to attribute the impact of a social and emotional learning programme to a child's subjective wellbeing. Similar to the PANAS-C discussed above, this measure provided information on how the children are feeling at that time, and not on their typical social and emotional attributes. It was felt that this measure would not give reliable results on the intervention being measured and would simply provide information on how the child is feeling in that moment, which may be more attributable to something that happened for that child at lunchtime that day or at home the night before.

The Social Competence Inventory (SCI) (Rydell et al. 1997). I assessed the SCI with a view to using this to measure the children's social skills. The SCI is suitable for children aged 5 to 11 years old. It is designed for completion by an adult who knows the child well in a classroom situation. The class teacher was viewed as the most suitable person for completion of this questionnaire, for the purpose of this current research. The questionnaire explores perceived quality of the child's social interactions with both peers and adults (Fredrickson & Dunsmuir, 2009).

This measure was aimed at capturing any changes in the children's perceptions of their relationships following the 10-week wellbeing programme. It was planned that the SCI would be used to obtain a baseline measurement before the implementation of the Weaving Wellbeing programme and repeated at the end of the programme to obtain post-intervention scores (Fredrickson & Dunsmuir, 2009). However, following further reading into my topic, I felt that it would be more beneficial to include the voices of children at the forefront of this research, rather than rely on teachers' and parents' perspectives. I also reflected on the fact that it may be burdensome for a class teacher to measure the skills of every child in their class and that this would be more suitable for a smaller scale research study.

Measures Used

PROMIS Pediatric Peer Relationships Questionnaire (DeWalt, et al. 2013) (See Appendix A). This was the measure of social functioning that was finally selected for use in the current study. I aimed to find a measure which takes into account children's perspectives and is user-friendly for self-reporting for children between the ages of 8 and 13. In line with my aims, the PROMIS measure focused on the quality of relationships with friends and other acquaintances for the child (Health Measures, 2019). Fredrickson & Dunsmuir (2009) note that

the extent to which children in upper primary school relate to people, both their peers and adults, is crucial to their overall psychological wellbeing. This measure was used to obtain a baseline measurement before the implementation of the Weaving Wellbeing programme and before the unplanned COVID-19 school closures; and was repeated when the schools reopened in September 2020 to capture change in children's social and emotional functioning across time.

It was felt that the PROMIS measure of the children's quality of their relationships with peers and others was a useful measure of overall social functioning for this cohort of children. The PROMIS (Patient Reported Outcomes Measurement Information System) Pediatric Peer Relationships questionnaire consists of 15 items and measures aspects of social participation and the quality of relationships with friends and acquaintances over the past seven days (Health Measures, 2019). For children of this age group, their social functioning is largely centred around how they interact in their friendships with peers, and other areas of social participation. It was also felt that this questionnaire was non-invasive and allowed the children to reflect on recent social interactions, which provides a reliable and valid account of their typical social functioning at that time, from their own perspectives.

Emotion Expression Scale for Children (EESC) (Penza-Clyve & Zeman, 2002) (See Appendix B). The EESC was chosen to capture participants' emotional functioning. Halberstadt et al., (2001) notes that an important and necessary skill for emotional functioning is an awareness of emotional literacy and the ability to communicate or express our feelings and emotions. The EESC measure of emotional functioning contained two subscales within it, which examined two aspects of emotional functioning; having an awareness of and the ability to describe and label their own emotions and, a willingness to communicate emotion to others, particularly negative emotion (Fredrickson & Dunsmuir, 2009).

The EESC measure captures the perspectives of the children and was non-invasive and ethically friendly for this cohort of children. Following substantial research on emotional functioning measures, I felt that the EESC measure targeted the information that was intended to be analysed in the current study, including information on the children's awareness of their emotions and their ability to express these emotions. The EESC was also found to be a reliable and valid measure for the current research as I report in the next chapter.

School Closure / Summer Holiday Social Interactions Questionnaire

Due to the unplanned COVID-19 school closures, it was necessary to redesign the analysis plan and study purpose. After in depth discussions with my previous and current supervisor, a new plan was formed to assess the impact of children's key social interactions experienced over the school closure and summer holiday period on the development of children's social and emotional functioning. To capture children's social interactions, I needed to create a new questionnaire that was specifically designed for the types of social interactions occurring during the school closures and summer holiday period (more details are in Appendix C). At this time, due to the lack of an existing measure of children's experiences and social interactions during the COVID-19 school closures, I began considering which types of social interactions might be most predictive of children's social and emotional functioning.

This led to the creation of a new questionnaire, which captured the children's retrospective accounts of their social interactions with their parents, siblings, and peers during school closures and the summer holiday period. The social interactions questionnaire was designed to be as brief as possible, to be accommodated in addition to the lengthier measures of social and emotional functioning (the PROMIS and EESC discussed earlier). Eight items were created that were split across three types of social interactions: relationship with parents,

relationship with peers and relationship with siblings. The individual items looked at whether the children had frequent and positive interactions with their parents, if they interacted a lot with their peers, and if they had siblings to play with during this time. Each item and their rationales are overviewed below.

1. 'Did you have siblings (your own brothers or sisters) to play with while the schools were closed?'. I felt it was necessary to find out if the children had direct contact with other children at home daily. A child's daily interactions with their siblings are very different to the daily social interactions with their parents (McHale et al. 2012).
2. 'Did your parents or another adult at home spend quality time with you while schools were closed and over the school holidays? By quality time we mean playing games, taking you places, talking with you, and helping you feel better when you were upset.' This question was very important to include, to differentiate between parents being home a lot and parents spending quality time with their children. When adults are present in a child's life they are influencing the child's development, however if they do not spend quality time with the child, the child does not access the immediate psychological and emotional resources the adult has to offer (Roudabush & Rider, 2019).
3. 'Did your parents work a lot while schools were closed and over the school holidays?' This was similar to the above question but gave an indication if parents were able to be present at home with their children or if they were busy with work during this time.
4. 'Did either of your parents work on the frontline during this COVID-19 outbreak? Examples of frontline workers include HSE staff (hospital staff), Garda, and retail staff (shop).' This question provided information that may indicate extra stress on a household over this period (Alrutz et al. 2020).

5. ‘Did you attend a summer camp over the school holidays?’ This question would indicate whether there was added in-person peer interaction for each child or not.
6. ‘Did you communicate with your friends over the phone/skype during the school holidays and while the schools were closed?’ This question provided information on interactions and communications with peers that were not in-person, and if these interactions could impact the child as much as in-person interactions (Best et al. 2014).
7. ‘Did you play outside with your friends during the school holidays and while the schools were closed?’ This question was similar to the question asking about extra activities but would indicate if the child had peer interactions daily with children outside of their immediate family.
8. ‘Did you attend any group activities over the summer? For example, GAA (Gaelic Athletic Association) training matches, dance classes, etc.’ This question was similar to the summer camps question, with the exception that extra activities are typically more regular and would involve a similar group or friends from the locality. This would mean that these interactions may impact differently on the child, compared to summer camps with unknown peers.

Ethical Assurances

As with any research study, ethical assurance has always been priority. I obtained full ethical approval from University College Dublin on the 6th January 2020 for my original research plan, and obtained further ethical approval for my amended research plan on the 1st July 2020. My ethics application number is HS-19-73-Hanley-Horan. Some important ethical considerations included data management and protection of the children taking part in the research. An information evening with all parents of the children from 3rd to 6th class was held in advance of

the research commencing, where information was given regarding the research, and parents were encouraged to ask any questions they had at this time. Information forms and consent forms were then provided to the parents (See Appendix D). It was recommended that they talk to their children about the research and allow their children the opportunity to ask questions and decide if they want to be part of the study. The four class teachers were also provided with an information form and consent form to complete, which was accompanied with a precautionary disclosure plan (See Appendix E).

Once consent was obtained from parents, the children were informed of the research by their class teacher and given the opportunity to opt in or out of the research themselves. The children were then given an information form and written assent form to complete (See Appendix F). The children and parents were also reminded that they could opt out at any stage of the research. When the COVID-19 pandemic caused our schools to close suddenly, and the amendments to my ethics application were approved, the new information and consent forms (See Appendix G) were then provided to parents and children continuing to participate in the study. It was very important that these children and families were kept anonymous, so it was decided that the children would use a number instead of their name as identification. They were then asked to keep a record of that number on their homework journal, so they could use the number as identification again when completing the measures at time point 2. All the anonymised data collected in paper format, in February and again in September, were stored in a locked cabinet in the researcher's home office and will be retained until August 2027. The paper data were inputted into SPSS and the SPSS files were stored on an encrypted laptop and backed up on a password encrypted USB key. Datasets were shared between me and my supervisor (Symonds) using the HEANet secure file transfer service.

Preparing Data for Regression Models

After the data were collected (the full data collection procedures are explained in chapter four, which summarises the empirical study), I examined the data to ensure that they met assumptions for the main analysis method of multiple regression. The five regression assumptions were taken from a statistics text book written for psychologists and social scientists (Harrison et al. 2021).

Assumption 1

The first regression assumption is that the predictor variables should be measured on a ratio, interval, or ordinal scale. A nominal predictor variable can be used in linear regression, but only if it is dichotomous. The variables should be continuous (or good quality ordinal) and be reasonably normally distributed. However, normality is not so much of an issue with regression as it is with other methods.

Results of Assumption 1. All my variables met this assumption. Out of the ten predictor variables, two were binary (gender and parents who work on frontline), one was continuous (age), and seven were ordinal (quality time with parents, number of siblings, attended extra activities, parents working a lot, attending summer camp, communication over phone/skype, play outside with friends).

Assumption 2

Assumption 2 is that the variables should not be too closely related statistically. If they are correlated at .8 or above, this is called multicollinearity and testing for a predictive relationship between them becomes meaningless, because they are measuring the same thing.

Results of Assumption 2. This assumption was tested using a correlational matrix. None of the correlation coefficients were above .8, which suggest that there was no multicollinearity amongst the predictor variables. See Table 1 below for results of this analysis.

Table 1.

Results for Assumption 2

	Predictor variables	1	2	3	4	5	6	7	8	9
1	Age	1								
2	Gender	-.02	1							
3	Quality time	-.04	.12	1						
4	Parent work	-.12	.02	.04	1					
5	Parent frontline	-.23*	-.13	.11	.19	1				
6	Siblings	-.01	.09	.23*	-.03	.06	1			
7	Video call	.33**	.13	-.06	-.02	-.09	-.03	1		
8	Play outside	-.08	.15	.27*	.15	.10	.07	.24*	1	
9	Extra activities	.05	.03	.20	.22	-.01	.08	.18	.34**	1
10	Summer camp	.04	-.12	-.32**	-.13	-.09	-.06	-.06	-.24*	-.70**

Notes: * $p = .05$, ** $p = .01$ or below

Assumption 3

Assumption 3 is that there must be a linear relationship between the predictors and the outcome variables.

Results of Assumption 3. I checked for the linear relationships between the predictors and the outcome variables using scatterplots. I have included three examples of scatterplots below, see Figures 1, 2 and 3. The three examples below looked at the linear relationship between a pre and post-test relationship, and two ordinal relationships. To measure the relationships, predictor variables were put on the x axis and these outcome variables were put on

the y axis. The two binary variables, age or parents working on frontline, did not need to be checked, as they were two-point scales.

Figure 1.

Example of scatterplot showing linear relationship between continuous variables

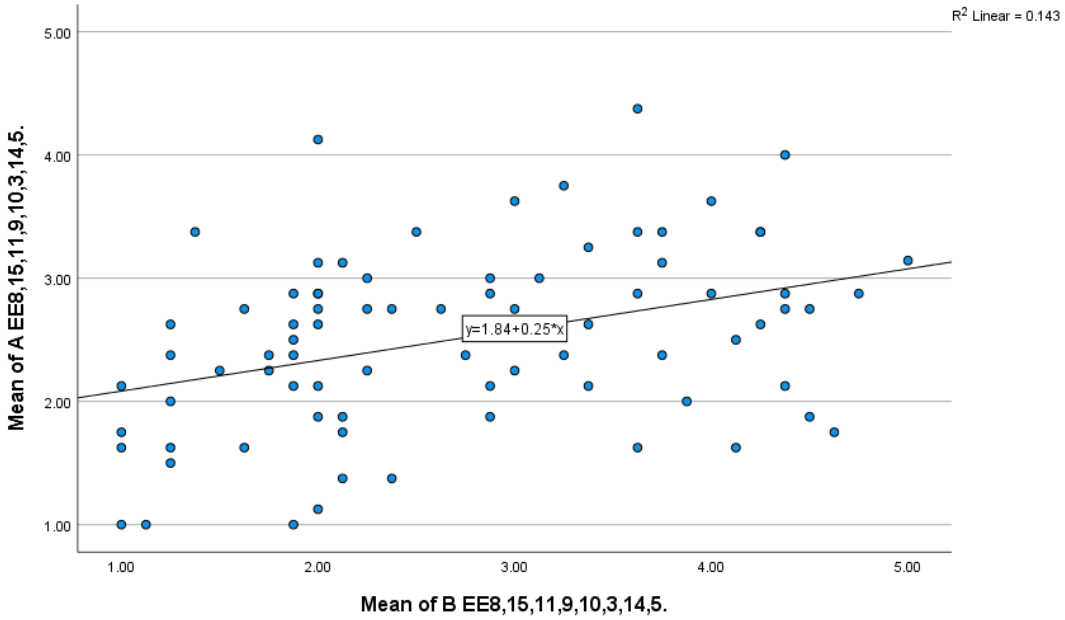


Figure 2.

Example 1 of scatterplot showing linear relationship between ordinal variables

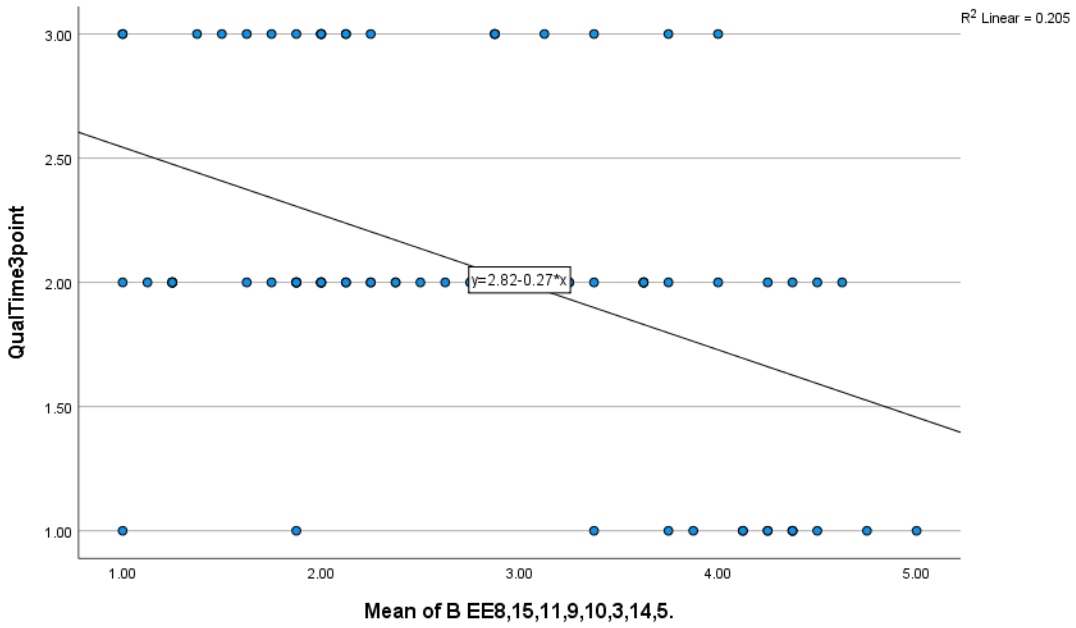
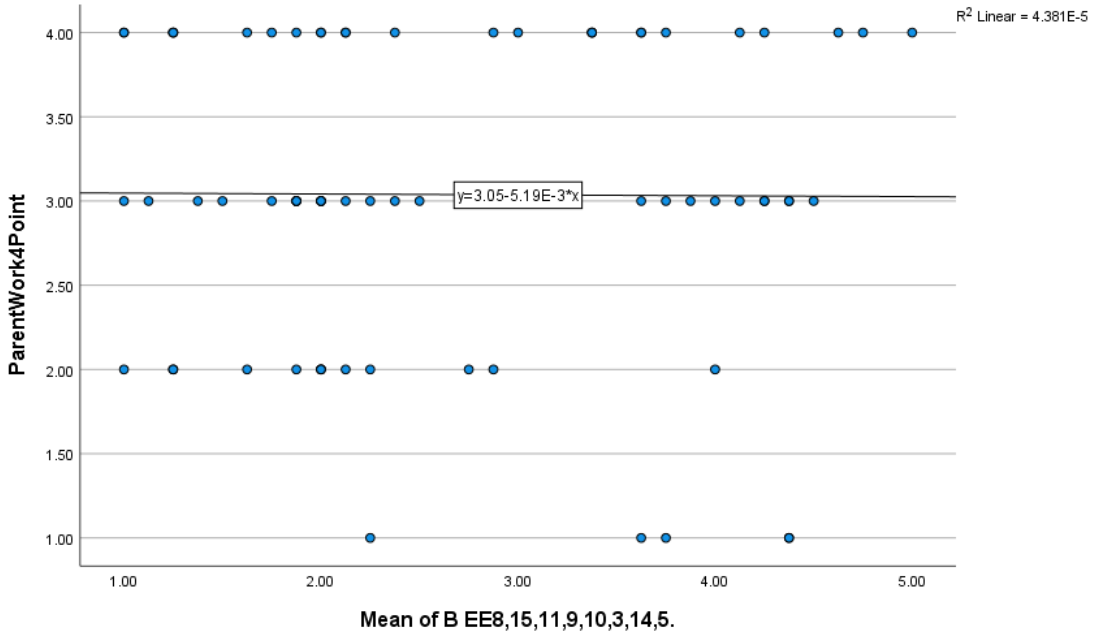


Figure 3.

Example 2 of scatterplot showing linear relationship between ordinal variables



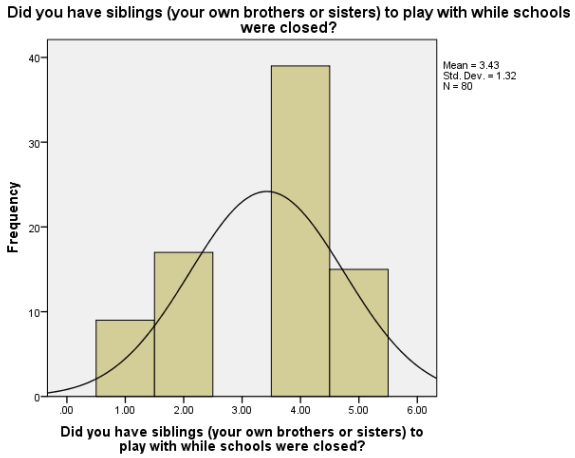
Assumption 4

Assumption 4 is that the linear relationships are normally distributed. Therefore, variables need to be checked to ensure they do not have outliers and are reasonably normally distributed.

Results of Assumption 4. All the data were checked. When there was a distribution that meant that there were outliers, or a lack of response in the middle, variables were recoded and transformed. Variables were checked and then transformed to make them more normal in their shape or distribution. See example of a recoded variable below. The example given here was an item from the social interactions questionnaire, 'Did you have siblings to play with while schools were closed?'. See Appendix I for details of all other recoded variables.

Figure 4.

Example of an Original Variable



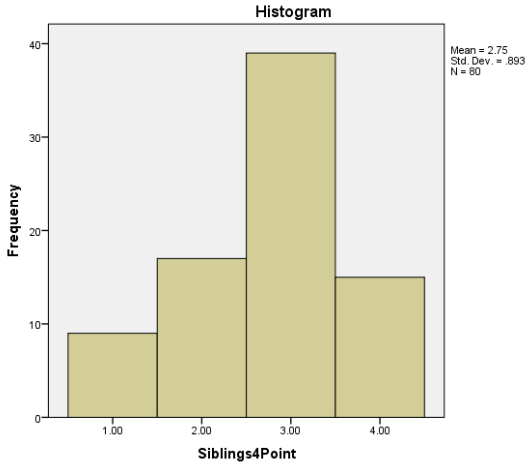
Original Measurement

1. No, I didn't play with any siblings
2. No, I have siblings but I didn't really play with them
3. Unsure
4. Yes, I have one or two siblings who I played with
5. Yes, I have many siblings who I played with

Note: There were no children who ticked number 3 (the unsure option) for this question. In order to make this variable linear, I recoded the number 3 response as a missing value. See below for new coding.

Figure 5.

Example of the Recoded Variable to Achieve a More Normal Distribution



New Recoded Results on 4-point scale

1. No, I didn't play with any siblings
2. No, I have siblings but I didn't really play with them.
3. Yes, I have one or two siblings who I played with.
4. Yes, I have many siblings who I played with.

Table 2.

Normality Test for the Original and Recoded Variables

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Did you have siblings (your own brothers or sisters) to play with while schools were closed?	.343	80	.000	.810	80	.000
Siblings4Point	.285	80	.000	.854	80	.000

a. Lilliefors Significance Correction

Table 3.

Descriptive Statistics for the Original Variable

			Statistic	Std. Error
Did you have siblings (your own brothers or sisters) to play with	Mean		3.4250	.14753
	95% Confidence Interval for Mean	Lower Bound	3.1314	

while schools were closed?		Upper Bound	3.7186	
	5% Trimmed Mean		3.4722	
	Median		4.0000	
	Variance		1.741	
	Std. Deviation		1.31952	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		2.00	
	Skewness		-.630	.269
	Kurtosis		-.964	.532

Table 4.

Descriptive Statistics for the Recoded Variable

			Statistic	Std. Error
Siblings4Point	Mean		2.7500	.09984
	95% Confidence Interval for Mean	Lower Bound	2.5513	
		Upper Bound	2.9487	
	5% Trimmed Mean		2.7778	
	Median		3.0000	
	Variance		.797	
	Std. Deviation		.89301	
	Minimum		1.00	
	Maximum		4.00	
	Range		3.00	
	Interquartile Range		1.00	
	Skewness		-.465	.269
	Kurtosis		-.399	.532

Assumption 5

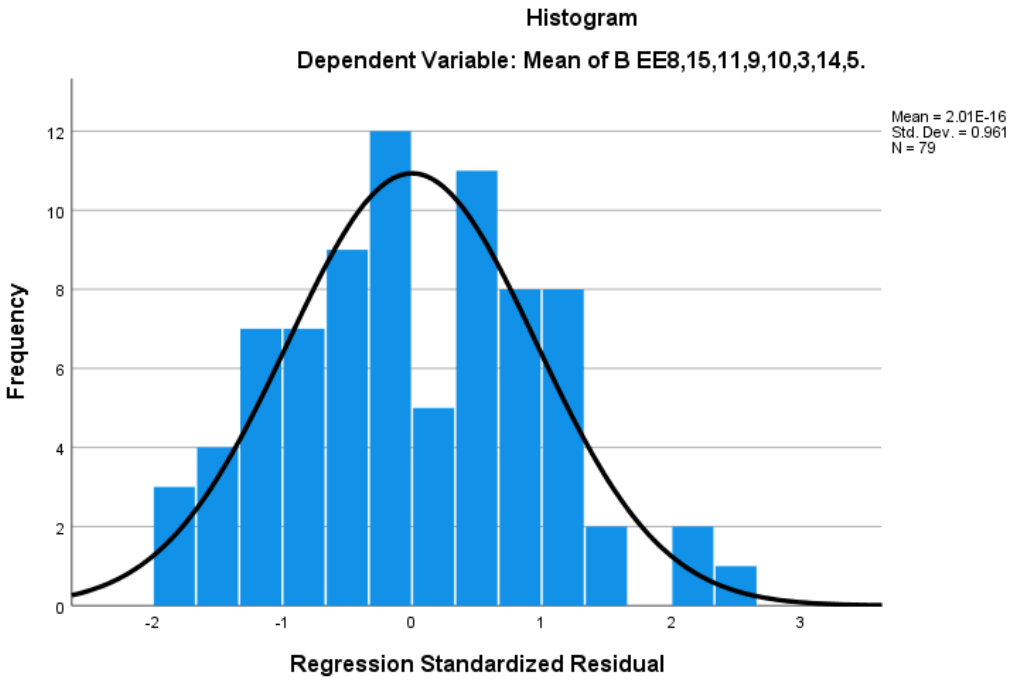
Assumption 5 is that the residuals of the linear relationships between variables are normally distributed. This is called homoscedasticity. Homoscedasticity describes a situation where any random disturbance in the relationship between independent and dependent variables

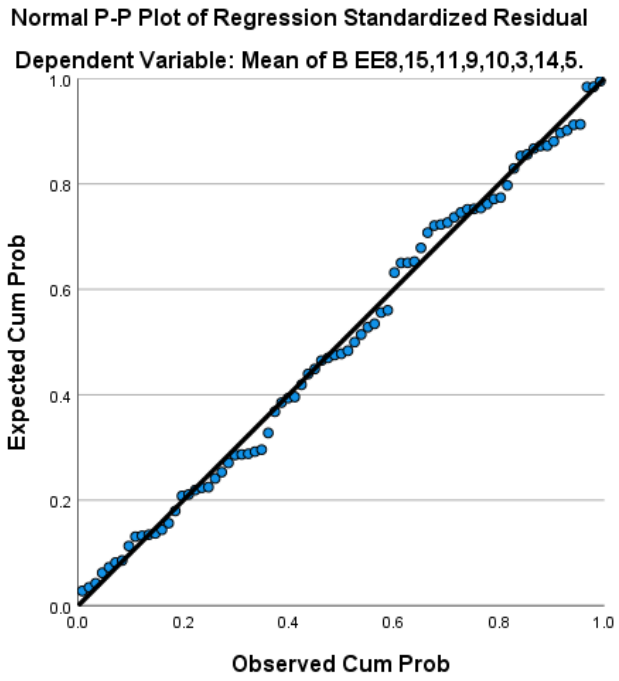
is the same across all values of the independent variables. The opposite to this is called heteroscedasticity, where a violation of homoscedasticity is present (Harrison et al. 2021). Residuals are the distance left over, between each point on the scatterplot, and the regression line. These distances themselves become data that can be plotted and tested for normality.

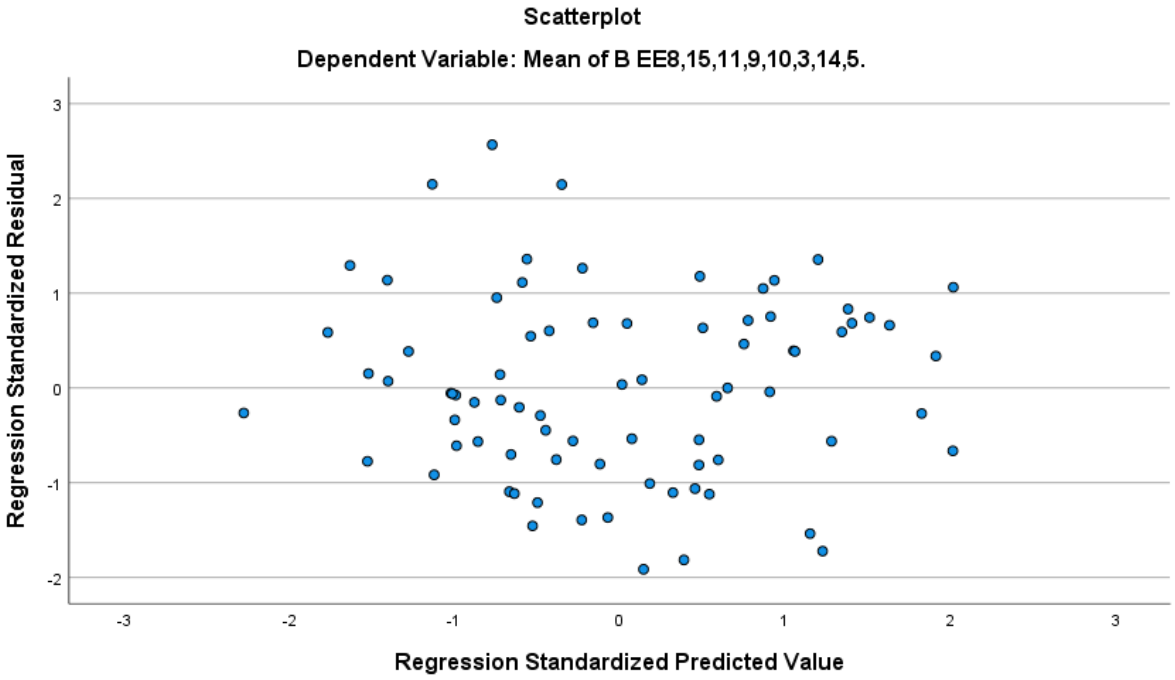
Results of Assumption 5. All the data were screened, and models were run to check for homoscedasticity with each predictor for each outcome variable. See an example of one of the models run below. There was no evidence of homoscedasticity for any of the predictor variables.

Figures 6.

Examples of a Histogram, P-Plot, and Scatterplot, Showing Homoscedasticity




Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Mean of B EE8,15,11,9,10,3,14,5.
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: Mean of B EE8,15,11,9,10,3,14,5.
Regression Standardized Residual
Regression Standardized Predicted Value
3
2
1
0
-1
-2
-3

Summary

In this chapter I have described the background to the empirical research. I have discussed my original research plan and how this was then impacted by the COVID-19 school closures. This was a huge turning point for me, requiring a redesign of the research purpose and goals. A huge amount of work, that is difficult to quantify, was involved in adapting the study. In this chapter I have also detailed the thought put into the measure selection and I have explained why I selected specific measures for use with the participants. Once the adaptation had been made to the research design, following the COVID-19 school closures, it was necessary to design a new questionnaire to capture children's social interactions during the period of school closures and summer holidays. Details of the questionnaire were provided in this chapter along with the rationale underpinning each item. This chapter also contains some information on the ethical approval that was obtained from UCD, including some of the ethical assurances that were considered before commencing and throughout this research study. In the final section of this chapter, I discussed the regression assumptions and how the data were checked for each of these assumptions, with some examples provided. This chapter overall highlights some key parts of the process behind this research, adding to the overall research story as it emerged in the final empirical study.

References

Alrutz, A., Buetow, S., Cameron, L., & Huggard, P. (2020). What happens at work comes home. *Healthcare*, *8*(3), 350-362. https://doi.org/10.3390/healthcare8030350

Best, P., Manktelow, R., & Taylor, B. (2014). *Children and Youth Services Review*, *41*, 27-36. https://doi.org/10.1016/j.childyouth.2014.03.001

DeWalt, D. A., Thissen, D., Stucky, B. D., Langer, M. M., Morgan DeWitt, E., Irwin, D. E., Varni, J. W. (2013). PROMIS Pediatric Peer Relationships Scale: Development of a peer relationships item bank as part of social health measurement. *Health Psychology*, *32*(10), 1093-1103. Retrieved from http://dx.doi.org/10.1037/a0032670

Fredrickson, N., & Dunsmuir, S. (2009). *Measures of Children's Mental Health and Psychological Wellbeing: A Portfolio for Education and Health.* London: GL Assessment Ltd.

Harrison, V., Kemp, R., Brace, N., & Snelgar, R. (2021). *SPSS for Psychologists.* London: Red Globe Press.

Health Measures. (2019). *List of Pediatric Measures*. Retrieved from http://www.healthmeasures.net/explore-measurement-systems/promis/intro-to-promis/list-of-pediatric-measures

Ivens, J. (2007). The development of a happiness measure for schoolchildren. *Educational Psychology in Practice*, *23*, 221-239.

Laurent, J., Catanzaro, S.J., Joiner, T.E., Jr., Rudolph, K.D., Potter, K.I., Lambert, S., Osborne, L., & Gathright, T. (1999). A measure of positive and negative affect for children: Scale development and initial validation. *Psychological Assessment*, *11*, 326-338. https://doi.org/10.1037/1040-3590.11.3.326

McHale, S. M., Updegraff, K., & Whiteman, S. D. (2012). Sibling Relationships and Influences in Childhood and Adolescence. *Journal of Marriage and the Family, 74*(5), 913-930. https://doi.org/10.1111/j.1741-3737.2012.01011.x

Penza-Clyve, S., & Zeman, J. (2002). Initial validation of the Emotion Expression Scale for Children. *Journal of Clinical Child and Adolescent Psychology, 31*, 540-547.

PhenX Toolkit. (2019). *Protocol - Emotional State - Child*. Retrieved from https://www.phenxtoolkit.org/protocols/view/180502

Roudabush, C., & Rider, A. (2019). *Why Spending Quality Time With Your Children is Important.* South Dakota: South Dakota State University Extension.

Rydell, A. M., Hagekull, B., & Bohlin, G. (1997). Measurement of two social competence aspects in middle childhood. *Developmental Psychology, 33*(5), 824-833.

Chapter 4: Empirical Study

The empirical study was submitted to an international academic journal in May 2022.

COVID-19 School Closures and Children's Social and Emotional Functioning: The Protective Influence of Parent, Sibling, and Peer Relationships

Abstract

Children's social and emotional functioning is central to their wellbeing and can positively impact their academic progress. However, the context for children's social and emotional development was altered due to school closures that came about because of the COVID-19 pandemic. During school closures, children spent extended periods of time at home with their parents and siblings and had limited interaction with friends and teachers. The current study explored how children's social and emotional development was impacted by the types of social interactions that children had during the school closures in Ireland. A sample of 81 primary school children (age 8 – 12 years), completed repeated measurements of social and emotional functioning at the start and end of the school closure period, and a measure of the types of social interactions they experienced with parents, siblings, and peers, during that period. Results indicated that children who spent more quality time with parents, had siblings to play with, and who played outside with friends more often, were protected against a decline in social functioning and from poorer emotional functioning across this period. Parent's work hours, and working on the frontline, were not associated with the development of children's social and emotional functioning. Theoretical and practical implications are discussed.

Keywords

COVID-19; emotional expression; peer relationships; school closures; social and emotional functioning.

Introduction

Children's social and emotional functioning is important for their wellbeing and academic achievement (Corcoran et al. 2018). However, during school closures, the opportunity for schools to teach children non-cognitive skills, including problem solving, social skills and self-control, was reduced. Research on the impact of the COVID-19 pandemic school closures documents that children had lower achievement on average after school closures compared to before school closures and compared to other cohorts who were tested in the pre-pandemic era (Donnelly & Patrinos, 2021). Despite this interest in the impact of the pandemic on academic outcomes, research on the impact of the school closures on children's social and emotional skills has been less forthcoming. Current literature does not inform us on how children's social and emotional functioning developed over the school closure period, and whether this development mirrored the learning loss seen in other studies. Furthermore, the literature does not investigate how children's social interactions with parents, peers, and siblings at home during school closures, might have impacted the development of children's social and emotional functioning. The current study addresses these research needs by examining the impact of children's social interactions with parents, siblings, and peers on the development of their social and emotional functioning across the school closure period.

Social and Emotional Functioning in Middle Childhood

Middle childhood is broadly defined as a developmental stage between age 6-years to around 10/12-years, while individuals are still sexually immature (Del Guidice, 2014). During middle childhood, children experience rapid social and emotional development, typically with increased participation in peer group activities, and structured guidance given in the form of schooling (Carr, 2017). Children become better able to regulate themselves socially and emotionally, and to consider other people's perspectives, which enables them to take on more social responsibilities such as caring for younger siblings (Del Guidice, 2014). Accordingly, children's relationships with parents, peers, and siblings alter across middle childhood, with friendships becoming more central to wellbeing (Ripoll-Núñez & Carrillo, 2014).

From a sociocultural perspective, relationships in middle childhood are fundamental to the development of children's higher order thinking processes (Vygotsky, 1978) such as the metacognition necessary for monitoring and controlling emotions and social interactions. Vygotsky (1978) proposed that people learn through their interaction with others, and this learning becomes integrated in the mental structure of the individual. Children develop their relationships within a range of developmental contexts including home, school, and neighbourhoods, creating an ecological system of social interactions across place and time (Bronfenbrenner, 1979).

Parent-Child Relationships and Social and Emotional Functioning

Children's everyday experiences with their parents are fundamental to the development of children's social and emotional skills and wellbeing (Amir, 2017). A parent provides their child with their first relationship, offering them opportunities to communicate and interact, while also modelling to their child everyday interactions with the people around them. A study by

Boutelle et al., (2009) found that parent-child connectedness, through a close and warm parent-child relationship, can act as a protective factor for children socially and emotionally as they develop through childhood, adolescence, and into adulthood. Relationships with parents are important during middle childhood, as children learn how to become more autonomous under the guidance of adult role models who provide them with useful knowledge about society (Del Guidice, 2017).

Sibling Relationships and Social and Emotional Functioning

Sibling relationships are important for the development of psychological and social functioning in childhood (Ripoll-Nunez & Carrillo, 2014). Siblings have an important role to play in each other's development, including as companions, confidantes, and combatants (McHale et al. 2012). Through everyday interactions with their siblings, children develop an understanding of how other people's minds work (Howe & Recchia, 2014), and learn social-cognitive skills which will benefit them in their other relationships throughout their life (Dirks et al. 2015). Accordingly, having positive relationships with siblings associates with improved prosocial behaviour and reduced conduct problems across middle childhood (Pike & Bonamy, 2017).

Peer Relationships and Social and Emotional Functioning

Peer relationships offer children social and emotional support, and the opportunity to gain important social and emotional skills (Pepler & Bierman, 2018). While navigating the world of relationships can be challenging, incurring occasional social conflicts and stressors, children can learn important competencies through friendships including empathy, cooperation, and problem-solving (Pepler & Bierman, 2018). Relationships with peers are helpful for social and emotional

development in middle childhood and play a key role in social and emotional functioning across the life course (Reitz et al. 2014).

COVID-19 School Closures and Social and Emotional Functioning

Vygotsky's (1978) sociocultural theory and Bronfenbrenner's (1979) ecological systems theory point to the significance of any shift in developmental context for children's social interactions and the subsequent development of children's social and emotional competencies. Such a shift came for most children in Ireland, in early March 2020, when the Irish government closed all childcare facilities, schools and colleges to prevent the spread of COVID-19. During March to June 2020, the Irish government imposed a strict lockdown with a 5-kilometre travel restriction and no non-essential social interactions outside of the household permitted. Schools were closed for the remainder of the school year, reopening in September 2020. Although children were gradually able to see friends and socialise more during the summer holidays, this had been preceded by many weeks of spending time primarily with their parents and siblings.

The impact of social distancing on the social and emotional wellbeing of all children has been highlighted as an area of concern (Wayman, 2020). There is research that suggests that when children are out of school, they are less physically active, have extended screen time, their sleep patterns are irregular and their diet is poorer, which can result in weight gain and deterioration of cardiorespiratory fitness (Brazendale et al. 2017). Children have also reported psychological stressors during lockdowns, including fear of becoming infected with COVID-19, boredom and frustration, missing friends and teachers, and a lack of personal space at home (Brooks et al. 2020). Research carried out by the Irish Central Statistics Office in August 2020 found that four out of every ten parents (from a sample of 1,333 parents) reported that the enforced school closures had a major or moderate negative impact on their child's social

development. However, studies have also documented positive effects of lockdowns on children's social experiences. In Australia, Evans et al., (2020) found that some parents reported positive benefits of lockdown for their children, including strengthening relationships within the family, accessing new hobbies, and developing positive characteristics such as appreciation, gratitude, and tolerance. More research is needed to build the evidence base on how the COVID-19 school closures and lockdowns impacted children's social and emotional functioning, in relation to the experiences that children had at home with their parents, peers, and siblings.

The Current Study

The current study explores the development of children's social and emotional functioning across March 2020 to September 2020. During these six months, school campuses were closed due to a nationwide lockdown, then schools remained closed due to the summer holidays. During the lockdown, children mainly interacted with parents and siblings, and had limited opportunity for daily social interaction with school peers and teachers (Symonds et al. 2020). However, after restrictions eased, children could play outside with their friends and towards the end of the summer holidays some children were also able to attend summer camps. This provided a setting of varied levels of social interaction for children depending on how children's time was organised. Drawing on Bronfenbrenner's (1979) ecological systems theory, we anticipated that children's social and emotional functioning would be challenged by the stressors of the pandemic and the resulting school closures, which presented a significant shift in developmental context for those children. Furthermore, drawing on Vygotsky's (1978) sociocultural theory, we expected that children's social interactions during the period of school closures would play a central role in the development of children's social and emotional functioning at that time. We investigated these issues using three research questions:

1. To what extent did children's social and emotional functioning change across the period before and after school closures?
2. Which types of social interaction during school closures had the most impact on children's social functioning?
3. Which types of social interaction during school closures had the most impact on children's emotional functioning?

Methods

Participants

The participants of this research study were the pupils of a medium-sized (approximately 220 pupils in total) rural primary school in Ireland. The school was selected through convenience. All 95 children from the 3rd, 4th, 5th and 6th classes (ages 9/10-years to 12/13-years; equivalent to US grades 3, 4, 5 and 6) were recruited into the study. After gaining informed consent from the principal (See Appendix H) and parents, and assent from the children, there were 87 participants (83% of the target population). Due to attrition, there was a drop of 6 participants at time point 2, leaving the total number of participants for the study from start to finish at 81 (n = 43 males and 38 females).

Procedures

The study methods were approved by the university's research ethics committee. The data were gathered from the children in each of the individual class group's own classrooms through paper and pencil questionnaires. Children's social and emotional functioning was first measured approximately three weeks prior to the COVID-19 unplanned school closures in March 2020. The same measures were administered in the first week of September 2020 when schools reopened. During the second survey, children's retrospective accounts of their experiences of

social interaction with parents, siblings, and peers, were also collected. The 6th class children who were no longer in the school from September 2020, received and returned their post-COVID-19 questionnaires via post. Children completed the questionnaires in classrooms (except for the 6th class children at time 2) in the presence of the classroom teacher. To ensure all children had an equal understanding of the questions and instructions, the teacher read the questions aloud to the children, giving them enough time to fill in their own answers.

Measures

Emotional Functioning

Emotional functioning was measured using the Emotion Expression Scale for Children (EESC) (Penza-Clyve & Zeman, 2002). Awareness of emotions and the ability to communicate feelings and emotions is considered a necessary skill for both emotional and social functioning. The EESC measure examines two areas of emotion regulation: 'poor awareness' of emotions (PA) and 'Expressive Reluctance' (ER). The PA subscale focuses on the child's ability to be aware of and identify their own feelings and the ER subscale contains items that relate to the child talking about or sharing their feelings with others (Fredrickson & Dunsmuir, 2009). For each subscale, a higher score is indicative of greater problems, specifically; on the PA subscale, a higher score indicates poor emotional awareness, and on the ER subscale, a higher score indicates greater reluctance/poorer ability to express emotions (Fredrickson & Dunsmuir, 2009).

Poor Emotional Awareness. The poor emotional awareness (PA) subscale was measured with eight items, including "When something bad happens I feel like exploding" and "I have feelings that I can't work out". Each item was scored using a five-point Likert type scale (1 = never true; 2 = almost never; 3 = sometimes; 4 = often; 5 = almost always). The internal consistency of the subscale was good at each time point (Time 1 $\alpha = .74$, Time 2 $\alpha = .92$).

Emotional Reluctance. The aspect of reluctance to express emotions (ER) was also measured with eight items, including "I prefer to keep my feelings to myself" and "when I get upset I am afraid to show it". Items were scored using a five-point Likert type scale (1 = never true; 2 = almost never; 3 = sometimes; 4 = often; 5 = almost always). The subscale was internally consistent at each time point (Time 1 $\alpha = .78$, Time 2 $\alpha = .87$).

Social Functioning: Peer Relationships

Social functioning was represented using a measure of peer relationships: the PROMIS (Patient Reported Outcomes Measurement Information System) Pediatric Peer Relationships questionnaire (DeWalt et al. 2013). The questionnaire development was funded by the National Health Initiative, for the purpose of clinical research, but it can also be used with the general population and is not disease specific (National Institutes of Health, 2021). This is a self-report measure for children between the ages of 8 and 17. It measures aspects of social participation and the quality of relationships with friends and acquaintances over the past seven days (DeWalt et al. 2013). This questionnaire consists of 15 items and has no subscales. Items included "I was good at making friends" and "I felt good about my friendships". Each item was measured using a five-point Likert type scale (1 = never; 2 = almost never; 3 = sometimes; 4 = often; 5 = almost always). A higher PROMIS peer relationships score represents a more positive outcome. The peer relationships scale showed good internal consistency at each time point (Time 1 $\alpha = .84$, Time 2 $\alpha = .92$).

Social Interactions with Parents, Siblings, and Peers During School Closures

At time 2, we administered eight items to measure children's retrospective accounts of their social interactions with parents, siblings, and peers, across the school closure period. These items were designed by the researchers. At the time, a lack of existing measures of children's

experiences during the school closures prompted the design of unique items for this study. Each item was measured using a five-point Likert type scale (1=never; 2=not much; 3=unsure; 4=a little bit; 5=always). Because the social and emotional functioning questionnaires were already long for administration with this age group, and because we wanted clear units of measurement for children's social interactions during school closures, we designed a small number of highly targeted items based on issues that were key in discourses around families, children, and school closures.

Children's social interactions with their parents were measured with three items: "Did your parents or another adult at home spend quality time with you while schools were closed and over the school holidays", "Did your parents work a lot while the schools were closed and over the school holidays" and "Did either of your parents work on the frontline during this COVID-19 outbreak?" One item captured children's social interactions with siblings: "Did you have siblings to play with while schools were closed". Children's social interactions with peers were measured with the questions: "Did you communicate with your friends over the phone/video call during the school holidays and while the schools were closed", "Did you play outside with your friends during the school holidays and while the schools were closed", "Did you attend a summer camp over the school holidays", and "Did you attend any group activities over the summer? For example, GAA (Gaelic football) training, matches or dance classes, etc.". Each item was measured on an ordinal scale with higher scores representing more agreement with the statements.

Analysis Plan

Statistical analysis was conducted in the Statistical Package for Social Sciences software (SPSS), version 24. First, a paired samples t-test was applied to identify any changes in the

children's social and emotional functioning across the school closure and summer holiday period. Next, a correlation matrix was computed to establish the basic relationships between variables. This preliminary analysis was necessary to determine that the predictor variables had sufficient independence to be used in the regression models. Finally, multiple linear regression was computed to determine the impact of the social interaction variables on the development of children's social and emotional functioning across time.

In the multiple linear regression models, the dependent variable was the Time 2 outcome, and the independent variables were the dependent variable at Time 1, age, and gender. All predictor variables were entered simultaneously into the model. Two types of models were run for each dependent variable: one focused on the impact of social interactions with parents, and one testing the effect of social interactions with siblings and peers. Sibling and peer variables were included in the same model because both sets of variables measured the availability of people to play with. This method resulted in six models: 1) impact of parents on emotional reluctance; 2) impact of parents on emotional expression; 3) impact of parents on peer relationships; 4) impact of siblings/peers on emotional reluctance; 5) impact of siblings/peers on emotional expression; and 6) impact of siblings/peers on peer relationships.

Results

Descriptive Statistics

Descriptive statistics are presented in Table 1. On average, children reported that during the COVID-19 school closures, they spent quality time together with parents most days, that their parents worked a lot some of the time, and that most of their parents did not work on the front line. Children also reported on average that they had one or two siblings to play with at

home, that they attended summer camp and extra activities over summer, that they phoned/video called their friends a lot during school closures, and that they played outside with friends a little bit during school closures.

Table 1.

Descriptive Statistics

Variables	*N*	Min	Max	*M*	*SD*
Gender	81 43 boys 38 girls	1 = boys	2 = girls		
Age	81	9	13	11.09	1.31
Poor emotional awareness time 1	87	1	4	2.49	0.72
Poor emotional awareness time 2	81	1	5	2.73	1.11
Emotional reluctance time 1	87	1	5	2.73	0.77
Emotional reluctance time 2	81	1	5	2.95	0.94
Peer relationships time 1	87	2	5	4.10	0.65
Peer relationships time 2	81	1	5	3.87	1.00
Did you spend quality time with your parents?	81	1	3	2.07	0.67
Did your parents work a lot?	79	1	4	3.04	0.87
Did your parents work on front line?	81	1	5	2.28	1.66
Did you have siblings to play with?	80	1	4	2.75	0.89
Did you phone/video call friends?	81	1	4	3.32	0.89
Did you play outside with friends?	80	1	3	2.04	0.77
Did you attend group activities?	81	1	2	1.64	0.48
Did you attend summer camp?	81	1	2	1.43	0.50

Change in Social and Emotional Functioning Across Time

To answer research question one, we computed mean values and tested for change in the social and emotional functioning measures using paired samples t-tests. Through this analysis we found that, on average, children reported poorer emotional awareness ($t(80) = 1.80$, $p = .075$) and emotional reluctance ($t(80) = 1.89$, $p = .062$) at time 2, however this change was not statistically significant. Following a similar pattern of negative changes in social and emotional functioning, on average, children reported lower peer relationships across time at statistically significant levels ($t(80) = -2.12$, $p = .037$).

Impact of COVID-19 School Closures on Social and Emotional Functioning

Next, we computed multiple linear regressions to test the impact of parent and peer/sibling interactions on the development of children's social and emotional functioning. All models controlled for children's age and gender. The full set of results are presented in Tables 2 and 3.

Impact of Social Interactions with Parents on Social and Emotional Functioning

Over the school closure and summer holiday period, having parents who worked a lot or having parents who worked on the front line, had no relationship with the development of children's emotional reluctance, emotional awareness, and peer relationships. Rather, it was spending quality time with parents that had a moderate negative relationship with the development of emotional reluctance and poor emotional awareness, and a moderate positive relationship with the development of peer relationships.

Table 2.

Impact of Social Interactions with Parents on Social and Emotional Functioning

	Emotional reluctance			Poor emotional awareness			Peer relationships		
Predictor variable	*b**	*T*	*P*	*b**	*t*	*p*	*b**	*t*	*p*
Time 1 variable	.42	4.56	<.001	.38	3.76	<.001	.22	2.12	.037
Age	.03	0.29	.772	-.01	-0.07	.944	-.01	-0.13	.897
Gender	.03	0.37	.711	-.02	-0.22	.820	-.11	-1.02	.309
Quality time with parents	-.42	-4.59	<.001	-.41	-4.19	<.001	.34	3.29	.002
Parents worked a lot	.09	0.93	.354	.04	0.44	.659	.16	1.49	.140
Parents worked frontline	-.16	-1.68	.096	-.12	-1.18	.239	.01	0.09	.929
Adjusted R^2	.38			.28			.24		
F	9.00			6.05			3.71		
P	<.001			<.001			.003		

Notes: Time 1 variable is the earlier measurement of the dependent variable (e.g., emotional reluctance at time 1). *b** = standardised regression coefficients; *t* = t-test statistic.

Impact of Social Interactions with Siblings/Peers on Social and Emotional Functioning

Regarding the impact of relationships with siblings and peers, there was no impact of talking to friends during school closures using telephone/video calling, or of attending summer camp, on the development of children's social and emotional functioning. Rather, children who had siblings to play with and who played outside during school closures, had lower levels of emotional reluctance and poor emotional awareness after returning to school. Also, playing outside with friends and attending extracurricular activities was associated with higher levels of peer relationships at time 2.

Table 3.

Impact of Social Interactions with Siblings/Peers on Social and Emotional Functioning

	Emotional reluctance			Poor emotional awareness			Peer relationships		
Predictor Variable	*b**	*t*	*p*	*b**	*t*	*p*	*b**	*t*	*p*
Time 1 SEF measure	.40	4.33	<.001	.38	4.01	<.001	.21	2.24	.028
Age	-.03	-0.26	.790	.03	0.24	.807	-.03	-0.31	.761
Gender	.02	0.25	.799	-.02	-0.22	.824	-.11	-1.08	.286
Siblings to play with	-.20	-2.23	.029	-.22	-2.46	.016	.13	1.40	.166
Friends phone/video	.14	1.40	.164	-.03	-0.27	.782	.01	0.12	.905
Friends play outside	-.31	-3.11	.003	-.24	-2.39	.019	.31	3.10	.003
Summer camp	.17	1.34	.183	.17	1.33	.187	-.09	-0.75	.453
Extra activities	-.12	-0.90	.366	-.21	-1.58	.117	.32	2.45	.017
Adjusted R^2	.38			.38			.40		
F	6.97			7.02			7.47		
P	<.001			<.001			<.001		

Notes: Time 1 variable is the earlier measurement of the dependent variable (e.g., emotional reluctance at time 1). *b** = standardised regression coefficients; *t* = t-test statistic.

Interaction Effects

After the main regression models were computed, we checked for interaction effects between gender and age, and the significant predictors of social and emotional functioning. Gender, age, and the significant predictors were mean centred by subtracting individual scores from the mean values of each variable. Interaction variables were computed by multiplying

gender and age, with each significant predictor (e.g., gender x quality time with parents). The interaction variables were tested in multiple linear regression models, where the dependent variable was the social and emotional functioning variable Time 2, and where the predictors were the social and emotional functioning variable Time 1, the significant predictor, gender or age, and the interaction variable.

Only one significant and puzzling interaction was found: older children who spent more amounts of quality time with parents also reported more development of poor emotional awareness (adjusted R^2 = .34, $F(4)$ = 11.24, p = <.001). In the model, quality time with parents predicted lower levels of poor emotional awareness (b = -.47, t = -5.08, p = <.001), age alone had no effect (b = .02, t = -.22, p = .829), and the interaction of age and quality time predicted higher levels of poor emotional awareness (b = .20, t = 2.12, p = .037). Possibly, this finding represents the inverse impact of spending a lot of time with parents on the development of emotional functioning for older children who may need more independence during early adolescence.

Discussion

In this study we investigated the impact of the COVID-19 school closures on the social and emotional functioning of a group of primary school-aged children. Using children's perspectives, we uncovered a snippet of what life may have been like for the children while the schools were closed. Results indicated that children's quality social interactions with parents, siblings, and peers, protected them against developing poor emotional awareness and emotional reluctance, and helped them develop their skills in managing relationships with peers. The amount of time that parents worked, having parents who worked on the frontline, and attending summer camps, did not impact the development of children's social and emotional functioning in this study.

Change in Social and Emotional Functioning Across Time

This study identified that, in this sample of children, children's self-reported ability to manage their peer relationships declined following six months of school closures which included several months in a national lockdown. Past research has found that when children are isolated from their peers due to illness or a pandemic, there is an interruption to their typical patterns of social interaction which can negatively impact their social development (Dyregrov et al. 2018). It is important to note that the social functioning measure used in this current research, focused on the day-to-day interactions with their peers. It is also important to note that the children completed the repeated measures questionnaires for this study while in class sitting alongside with their classmates and friends. They would have been without typical daily interaction with most of these classmates across the school closure period. Therefore, they might have been perceiving their social functioning with regards to how their friendships with these classmates were impacted during this six-month period.

We also identified that there were no significant changes in emotional reluctance and poor emotional expression following the school closures. This finding must be interpreted with caution due to the small sample size, because the mean values for these variables were higher after school closures than they were before school closures. Other research has found that extended periods of social isolation can negatively impact on a child's development, this is due to the body receiving this as a stressful situation, which in turn causes the release of multiple stress hormones (Almeida et al. 2021). However, this group of children may not have experienced prolonged feelings of stress, during the six months of school closures. The social interaction data we collected revealed that most children reported spending quality time with their parents, played with siblings, and had time to play with friends and connect with friends via

video/telephone calls. The frequency of these social interactions may have aided children to develop their emotional competencies across time.

Impact of COVID-19 School Closures

Impact of Relationships with Parents

Regarding the effect of social interactions with parents on the development of children's social and emotional functioning, we observed that there was no impact of having parents who worked on the front line, or who worked a lot. This finding is supported by findings from the Growing Up in Ireland study, where Russell and Thornton (2021) observed that the way in which each household accommodates the demands of family and work life is in many cases more important that the employment status itself. Russell & Thornton (2021) also noted that the employment of the parent has no consistent negative or positive impact on their children, with results varying depending on the outcome being investigated. Research emphasises the importance of frequent and sustained interactions between parents and children, particularly within the first six months of life, because this is a critical stage of development for children's brains and sets the conditions for healthy internal working models of attachment (Heinrich, 2014). However, as the child grows and develops, especially during middle childhood, the quality of the relationship with the parent appears to take precedence over the quantity of interactions with the parent. Heinrich (2014) notes that the important factor for children is not necessarily how much time the parents work, but rather how parents interact with their child and the quality of those interactions. Accordingly, we observed that children who spent more quality time with their parents during school closures, had on average higher levels of social and emotional functioning after school closures. Further research from the Growing Up in Ireland study supports this result, with children in Ireland who experience more closeness and less

conflict with parents experiencing more positive social adjustment in school and elsewhere (Nixon, 2021).

Impact of Relationships with Siblings

Furthermore, we found that having siblings to play with at home also protected children against poor emotional functioning. This association has been found in previous developmental research. A longitudinal study by Harper et al., (2014), while controlling for parent-child and peer relationships, found that children who had better relationships with siblings also had, on average, better quality social and emotional functioning. Other research found that it is the quality of relationships with siblings, rather than the number of siblings, which has the strongest impact on children's emotional development (Yucel & Yuan, 2015).

However, this study also found that having siblings to play with at home had no significant impact on the development of the children's social functioning with peers. While other research, as discussed above, highlights the importance of the sibling relationship for emotional functioning, it is not always necessary to have siblings to function well socially. Riggio (2010) carried out a research study with 197 participants, comparing the personality and social skills of two groups of adults, one group who grew up with siblings and one group who grew up without siblings. This research found no differences in the two groups of adults and their various social skills and overall social competence (Riggio, 2010). Riggio (2010) explained this lack of difference in adult social skills, by the fact that children without siblings typically experience a closer relationship with their parents, which may compensate in the development of social and communication skills. Also in our study, the impact of playing with siblings on children's relationships with their peers might have been lessened due to including a more relevant predictor of playing outside with peers.

Impact of Relationships with Peers

Following from this, we found that playing outside with friends was an important predictor of children's relationships with peers and protected children from developing emotional reluctance and poor emotional awareness. Peer interactions are very different to a child's interactions with adults, as peers are interacting with their relative equals, so frequent conflicts that may occur provide the children with opportunities to learn how to get on and provide each other with opportunities to problem solve and learn about other people's feelings and perspectives (Pepler & Bierman, 2018). Successful interactions with peers help a child to build friendships and learn valuable social skills, including skills of communication, listening, co-operating, and negotiating conflict (Pepler & Bierman, 2018).

In comparison, attending summer camps and extra activities during the summer, did not have these protective effects on the children's emotional functioning, but interestingly the children who reported attending regular extra activities, such as GAA or dance, did show improvements in their peer relationship scores. This may be due to the limited time spent at summer camps, and also because being in a large group of peers does not ensure that children develop useful social and emotional skills. In comparison, attending extracurricular activities weekly, such as GAA or dance, enables children to build more sustained friendships, enabling more consistent social interactions which could be beneficial for children's social and emotional learning.

Strengths, Limitations and Future Directions

This current study is, to the best of our knowledge, the only research study that managed to capture how children's social and emotional functioning changed across the COVID-19 school closures in relation to the social interactions experienced by children during that time. This

provides useful information for researchers, parents, and educational professionals who may want to invest time in helping children develop their social and emotional skills after long periods of school closure. The study used high quality, reliable psychometric measures of social and emotional functioning, utilised necessarily novel measures of social interactions during school closures, and had a high participation rate with nearly all recruited children being in the sample.

Despite these strengths, the study also has its limitations. The sample was limited to a single rural school, where children came from a similar socioeconomic setting and were ethnically very homogenous (as observed by the researcher). It would have been valuable to also study the perspectives of children from lower socio-economic backgrounds, ethnic minorities, or immigrant groups, whose home lives and experience of school closures might have been very different to the children in this study. Furthermore, the measures used were child self-report and although these are appropriate for capturing psychological functioning, there is also the chance of self-report bias especially because the children were mainly studied in classrooms where other children and an adult were present. The items measuring social interactions during the school closures asked for retrospective accounts, therefore there might be a recall bias that may have impacted the results. Finally, because the questionnaires were constructed by the researchers, there was limited opportunity for the participants to express their own views and experiences freely. This research would be improved with multiple participant groups, real-time accounts of social interaction during school closures, and qualitative inquiry to add more depth to the investigation.

Conclusion

Middle childhood is an important developmental period where children experience a rapid change in their social and emotional functioning (Del Guidice, 2014). Research emphasises the importance of consistent and high-quality social interactions, rather than the amount or frequency of social interactions that are experienced. Parents and educators should ensure that in times of sudden school closures, or extended periods of social isolation, children will continue to learn valuable social and emotional skills from quality interactions with their parents or primary caregivers, and through maintaining regular social interactions with peers. It appears that these social interactions are most helpful when they are in person, and that both structured and unstructured time with similar aged peers is helpful for children's social and emotional development. Having positive daily social interactions might not only protect children from the harmful effects of stress that social isolation may cause, but also contributes to their learning and development of important social and emotional skills. To conclude, it is possible to support children's social and emotional development in future periods of school closures by ensuring that children have access to high quality, and consistent social interactions with their parents, siblings, and peers.

References

Almeida, I. L., Rego, J. F., Teixeira, A. C., & Moreira, M. R. (2021). Social isolation and its impact on child and adolescent development: a systematic review. *Revista Paulista de Pediatria, 40*. https://doi.org/10.1590/1984-0462/2022/40/2020385

Amir H (2017) Psychology – Child Emotions The Link between Inter-Parental Conflict and Health Emotional Development of Children. *Journal of Psychology and Clinical Psychiatry. 7*(2), 1-3. https://doi.org/10.15406/jpcpy.2017.07.00431

Boutelle, K., Eisenberg, M. E., Gregory, M. L., & Neumark-Sztainer, D. (2009). The reciprocal relationship between parent–child connectedness and adolescent emotional functioning over 5 years. *Journal of Psychosomatic Research*, 66(4), 309-316. https://doi.org/10.1016/j.jpsychores.2008.10.019

Brazendale, K., Beets, M. W., Weaver, R. G., Pate, R. R., Turner-McGrievy, G. M., Kaczynski, A. T., Chandler, J. L., Bohnert, A., & von Hippel, P. T. (2017). Understanding differences between summer vs. school obesogenic behaviors of children: The structured days hypothesis. *The International Journal of Behavioral Nutrition and Physical Activity, 14*, Article 100. https://doi.org/10.1186/s12966-017-0555-2

Bronfenbrenner, U. (1979). *The Ecology of Human Development: Experiments by Nature and Design.* Cambridge, Massachusetts, and London, England: Harvard University Press.

Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Grennberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet*, 395(10,227), 912-920. https://doi.org/10.1016/ S0140-6736(20)30460-8

Carr, A. (2017). Social and emotional development in middle childhood. In D. Skuse, H. Bruce, & L. Dowdney (Eds.), *Child psychology and psychiatry: Frameworks for clinical training and practice* (pp. 83–90). Wiley Blackwell. https://doi.org/10.1002/9781119170235.ch10

Central Statistics Office. (2020, August). *Social Impact of COVID-19 Survey August 2020: The Reopening of Schools.* Retrieved from www.cso.ie: https://www.cso.ie/en/releasesandpublications/ep/p-sic19ros/socialimpactofcovid-19surveyaugust2020thereopeningofschools/impactofenforcedschoolclosures/

Corcoran, R. P., Cheung, A. C., Kim, E., & Xie, C. (2018). Effective universal school-based social and emotional learning programs for improving academic achievement: A systematic review and meta-analysis of 50 years of research. *Educational Research Review*, *25*, 56-72.

Del Giudice, M. (2014). Middle childhood: An evolutionary-developmental synthesis. *Child Development Perspectives*, *8*(4). 193-200. https://doi.org/10.1111/cdep.12084

DeWalt, D. A., Thissen, D., Stucky, B. D., Langer, M. M., Morgan DeWitt, E., Irwin, D. E., Varni, J. W. (2013). PROMIS Pediatric Peer Relationships Scale: Development of a peer relationships item bank as part of social health measurement. *Health Psychology, 32*(10), 1093-1103. http://dx.doi.org/10.1037/a0032670

Dirks, M., Persram, R., Recchia, H., & Howe, N. (2015). Sibling relationships as sources of risk and resilience in the development and maintenance of internalizing and externalizing problems during childhood and adolescence. *Clinical Psychology Review*, 42, 145-155. https://doi.org/10.1016/j.cpr.2015.07.003

Donnelly, R., & Patrinos, H. A. (2021). Learning loss during Covid-19: An early systematic review. *Prospects*, 1–9. https://doi.org/10.1007/S11125-021-09582-6/TABLES/3

Dyregrov, A., Yule, W., & Olff, M. (2018). Children and natural disasters. *European Joural of Psychotraumatol, 9(2)*. https://doi.org/10.1080/20008198.2018.1500823

Evans, S., Mikocka-Walus, A., Klas, A., Olive, L., Sciberras, E., Karantzas, G., & Westrupp, E. M. (2020). From "It Has Stopped Our Lives" to "Spending More Time Together Has Strengthened Bonds": The Varied Experiences of Australian Families During COVID-19. *Frontiers in Psychology*. https://doi.org/10.3389/fpsyg.2020.588667

Fredrickson, N., & Dunsmuir, S. (2009). *Measures of Children's Mental Health and Psychological Wellbeing: A Portfolio for Education and Health.* London: GL Assessment Ltd.

Harper, J. M., Padilla-Walker, L. M., & Jensen, A. C. (2016). Do Siblings Matter Independent of Both Parents and Friends? Sympathy as a Mediator Between Sibling Relationship Quality and Adolescent Outcomes. *Journal of Research on Adolescence*, 26(1), 101-114. https://doi.org/10.1111/jora.12174

Heinrich, C. J. (2014). Parents' Employment and Children's Wellbeing. *The Future of Children, 24*(1), 121-146. https://doi.org/10.1353/foc.2014.0000

Howe N, Recchia H. (2014). Sibling Relations and Their Impact on Children's Development. In: Tremblay RE, Boivin M, Peters RDeV, eds. Boivin M, topic ed. *Encyclopedia on Early Childhood Development* [online]. https://www.child-encyclopedia.com/peer-relations/according-experts/sibling-relations-and-their-impact-childrens-development

McHale, S., Updegraff, K., & Whiteman, S. (2012). Sibling Relationships and Influences in Childhood and Adolescence. *Journal of marriage and the family*, 74(5), 913-930. https//doi.org/10.1111/j.1741-3737.2012.01011.x

National Institutes of Health. (2021). *Patient-Reported Outcomes Measurement Information System (PROMIS).* Retrieved from https://www.nia.nih.gov/research/resource/patient-reported-outcomes-measurement-information-system-promis

Nixon, E. (2021). *How Families Matter for Social and Emotional Outcomes of 9-Year-Old Children.* Dublin: The Stationary Office. Retrieved from https://www.growingup.ie/pubs/BKMNEXT316.pdf

Penza-Clyve, S., & Zeman, J. (2002). Initial validation of the Emotion Expression Scale for Children. *Journal of Clinical Child and Adolescent Psychology, 31*, 540-547.

Pepler, D. J., Bierman, K.L. (2018). With a Little Help from my Friends: The Importance of Peer Relationships for Social-Emotional Development, Edna Bennett Pierce Prevention Research Center, Pennsylvania State University.

Pike, A., & Oliver, B. R. (2017). Child behavior and sibling relationship quality: A cross-lagged analysis. *Journal of Family Psychology, 31*(2), 250–255. https://doi.org/10.1037/fam0000248

Reitz, A. K., Zimmermann, J., Hutteman, R., Specht, J., & Neyer, F. J. (2014). How Peers Make a Difference: The Role of Peer Groups and Peer Relationships in Personality Development. *European Journal of Personality, 28*(3), 279-288. https://doi.org/10.1002/per.1965

Symonds, J., Devine, D., Sloan, S., Crean, M., Moore, B., Martinez Sainz, G., Farrell, E., Davies, A., & Blue, T. (2020). *Experiences of Remote Teaching and Learning in*

Ireland During the Covid-19 Pandemic (March – May 2020). University College Dublin.

Vygotsky, L. (1978). *Mind In Society.* (M. Cole, V. John-Steiner, S. Scribner, & E. Souberman, Eds.) Harvard: President and Fellows of Harvard College.

Yucel, D., & Yuan, A. V. (2015). Do Siblings Matter? The Effect of Siblings on Socio-Emotional Development and Educational Aspirations among Early Adolescents. *Child Indicators Research*, 671-697. doi: https://doi.org/10.1007/s12187-014-9268-0

Chapter 5: Implications for Educational and Psychological Practice

The field of educational psychology draws on psychological and educational theory, practice, and research, to provide an evidence-based toolbox of resources to help support children, families, and educators worldwide. Supporting children's learning is fundamental to the future of human beings. It is through our education systems that we can provide the necessary information to children to allow them to take charge of their own safe, happy, and healthy future. To continue to make changes to educational policies and frameworks, educational psychology plays a key part in carrying out research to continue to gain a better understanding of child development, cognitively, socially, and emotionally. This research informs the Department of Education in Ireland of what is necessary and beneficial to children and educators in Ireland.

Educational psychology in practice then allows the theory and research that has been supported by evidence to be introduced directly to our schools and for families of children in our education system. Continued research is essential to continue to provide updated information about our ever-changing society and what is positive for our education system, to ensure an ethical, fun productive learning experience for all children.

The investigation of how sudden school closures can impact on children, is both original and potentially significant in this current climate. This current piece of research, from the children's perspectives highlights the importance of research to inform educational and psychological practice and boosts the current knowledge and evidence base on the topic of social and emotional functioning in middle childhood.

Impact of SEL Programmes on the Self-Efficacy of Children and Teachers

My systematic literature review investigated the impact of social and emotional learning programmes on the self-efficacy of the students, and the teachers teaching the programme.

Overall, it provides crucial information indicating a lack of research in this specific area. The review outlines that there is a huge amount of research on social and emotional learning programmes, but a limited amount of these studies measure the impact of these programmes on self-efficacy. The lack of empirical evidence in this area is a major implication for research.

This systematic literature review is unique in that it examined the effectiveness of school-based SEL programmes on both the students' and teachers' self-efficacy. Only three studies met the inclusion criteria, which captured three different SEL programmes. Two out of three of these final studies looked at the effects on student self-efficacy, while one looked at the effects on teacher self-efficacy. Although the studies each had their limitations, the main result of the studies was that self-efficacy improved in children and teachers after the SEL programmes were delivered in schools. The two papers looking at the effects on student self-efficacy showed improved results for student self-efficacy following taking part in the intervention, in comparison to the control groups. The one study found, that looked at the effects on teacher self-efficacy, revealed a significant improvement in teacher self-efficacy following the intervention, in comparison to a control group. The main implication of these results for research is that self-efficacy should be considered in studies that aim to uncover how psychology is impacted by SEL programmes. This is because self-efficacy, although not a primary target of the interventions, is something that is malleable and is impacted by the social and emotional learning methods. The main implication of this finding for educational psychology practice is that educational psychologists might consider how SEL programmes can be best adapted and delivered in mind of benefitting the self-efficacy of teachers and students, even if self-efficacy is not a deliberate programme target.

Social and Emotional Development During COVID-19 School Closures

The findings of the empirical journal article provide useful information on how children's social and emotional functioning developed across the COVID-19 school closures and how children's relationships with parents, peers, and siblings during the school closure period impacted this development. The sample of children were studied when they were in middle childhood. Middle childhood is a time where children learn more about making and maintaining friendships, while also learning important emotional skills, such as recognising and controlling their emotions and learning to express emotions effectively.

Through the research, I found that children's social functioning declined across time – they had lower scores in relationships with peers after school closures and the summer holiday. The major implication of this finding for educational psychology practice is that children may require support in basic social and friendship skills upon their return to school, after the summer holidays or a different period of school closure. This is important because of the centrality of peer relationships in the lives of children in middle childhood.

I also found slight increases in children's poor emotional awareness and emotional reluctance across the school closure and summer holiday period by examining the mean values, although these differences in mean values across time were not statistically significant. If my sample were larger, these results might have reached statistical significance, and therefore be more meaningful. One implication of this finding for educational psychology practice is that children may benefit from education about emotional functioning when they start school after a period of school closure. This could be delivered as part of a social and emotional learning programme, which may include teaching children about understanding and being aware of their emotions and some skills relating to expression of these emotions.

Impact of Social Interactions During COVID-19 School Closures

In my empirical study I also examined how certain social interactions may have impacted the social and emotional functioning of this group of children over this period. The findings indicated that the most impactful predictors of social and emotional functioning were spending quality time with parents, having siblings to play with, playing outside with friends and attending regular extra activities. The amount of time that parents worked, having parents who worked on the frontline, and attending summer camps, did not impact the development of children's social and emotional functioning in the study.

When looking specifically at the social interactions with parents, it was found that over the school closures and summer holiday, having parents who worked a lot or having parents who worked on the front line, had no impact on the development of children's emotional reluctance, emotional awareness, and peer relationships. Rather, it was spending quality time with parents that impacted the development of children's social and emotional functioning. The direction of the effect indicated that the children who reported spending less quality time with their parents were more likely to have higher levels of emotional reluctance and poor emotional awareness, and lower self-reported peer relationship quality across time.

Regarding the impact of relationships with siblings and peers, there was no impact of talking to friends during school closures, using telephone/video calling, or of attending summer camp, on the development of children's social and emotional functioning. Rather, children who had siblings to play with and who played outside with friends, had lower levels of emotional reluctance and poor emotional awareness across time. They also had more positive development of their peer relationships.

Social and Emotional Learning Programmes as an Educational Resource

It is hoped that these findings will raise a greater understanding amongst educational and educational psychology practitioners, of the importance of social and emotional learning programmes. A structured social and emotional learning plan, teaching specific skills in friendships and the ability to understand and express emotions should become an important part of the curriculum for Irish primary schools. While the Irish primary school curriculum currently includes Social, Personal, Health, Education (SPHE) as a subject, with strand units such as 'myself', 'myself and others' and 'myself and the wider world', it is currently recommended that only 30 minutes per week is spent on this important subject (NCCA, 2016). This is the smallest amount of time that is allocated to any of the twelve primary school curriculum subjects. It is clear that there is already curriculum overload for teachers, however it is vital that subject time allocation is reviewed, to ensure more time is spent on the teaching of social and emotional skills to children in primary schools in Ireland.

Aside from time allocation in schools, there is also currently a limited number of updated programmes for teachers to follow, without specialised training required to teach them. Currently the social and emotional learning programmes that are used widely in Ireland, require specific teacher training, for example: Incredible Years (Webster-Statton, 2013), and Friends for Life (NBSS, 2013). In 2017, Richard Bruton announced that the government were preparing to offer teacher training, to teachers in over 900 DEIS schools around Ireland, in the FRIENDS for life and Incredible Years social and emotional learning programmes, with an effort at reducing anxiety levels in students and improving a child's resilience skills (O'Brien, 2017). It is in the researcher's opinion, that equal importance is placed on non-DEIS schools as well as DEIS schools, to ensure that social and emotional learning programmes such as these, are promoted in

all schools, especially now with the reopening of schools following COVID-19. These programmes are costly and would require government support for mainstream schools in providing time and pay for teachers to be specifically trained to teach these programmes.

However, there are some programmes currently available without specific teacher training required including Zones of Regulation (Kuypers & Garcia, 2011) and Weaving Wellbeing (Forman & Rock, 2016). Zones of Regulation is a programme providing children with an understanding of their emotions and strategies to regulate them. This is a resource that is used in child disability and mental health services, and often used in special school settings. However, children in mainstream settings would also benefit from learning these essential skills for life. Weaving Wellbeing is also a SEL programme which teaches children skills of positive relationships and emotions, empowering beliefs, character strengths and skills of resilience. Both programmes are laid out in a structured way that allows teachers to plan and follow a layout step by step, teaching children these invaluable life skills as part of their usual school day.

Social and Emotional Learning in the Home Setting

Curriculum development, intervention programmes and strategies such as improving the quality of student teacher relationships and communication in the classroom are all pivotal to children's social and emotional development. Another important set of factors are having supportive role-models and quality relationships with people in the home and neighbourhood settings, including parents or primary care givers, siblings, and close friends. Fundamentally, this means that social and emotional learning can happen every day at home and in everyday interactions with our children. While educational psychologists primarily work with schools, there is also a huge part of the work that involves the families and the home life of the children involved. The research in my thesis emphasised the importance of quality time spent with

parents on the social and emotional functioning of the child. Other research supports these results, emphasising the importance of the parent-child relationship as a factor in a child's social and emotional development.

Some of the data from the Minnesota longitudinal study of parents and children, which looked at the lives of almost 300 children from infancy to adulthood, found that the key factor in predicting a child's behaviour in adolescence is the parent-child relationship, and how the parent interacts with the child (Sroufe et al. 2010). Another study by Cox & Harter (2003) who reviewed a large amount of literature and discussed the correlation between a positive parent-child relationship and the child's social and emotional wellbeing, concluded that it is the relationship between the child and the parent that is critical for positive child social and emotional development. Cox & Harter (2003) noted that the key component appears to be a sensitive, responsive, child-centred approach, where parents guide by observing behavioural cues of their child rather than being influenced by their own needs during parent-child interactions.

Findings from my doctoral research, emphasising the importance of the quality of the parent-child relationship, have implications for educational psychology practice. In many cases, work on assessment and intervention has been focused on the school and teachers working with the child. The parents are also informed of the children's difficulties in school and given some supports at home. However, this research emphasises the importance of parents being informed that the quality time they spend with their children and how they interact with their children will in turn effect how their child develops socially and emotionally, which in turn impacts on a child's behaviour and academic success. This information for psychologists should work towards the implementation of more group interventions for parents within the school community. Therefore, whilst continuing to support teachers through professional development by the means

of evidence-based social and emotional learning programmes, it is vital that alongside this there is training for parents, in informing parents of the huge role they play in their child's social and emotional development and strategies they can use at home to continue to focus on building their relationship with their child.

Dissemination

The aim of this research thesis was to evaluate social and emotional functioning and ways in which it can be impacted or enhanced, specifically in primary schools. The findings from this current study provide relevant and important information for many agencies. There are three key audiences that would benefit from the information in this research, these are: the National Educational Psychological Service (NEPS), the Irish National Teachers' Organisation (INTO), and the Department of Education. The empirical journal article in chapter four of this thesis, has been submitted to the Journal of Child and Family Studies for publication. A summary of the findings from the empirical journal article will be presented to the children, parents and teachers who participated in this thesis, along with a scheduled presentation at the INTO consultative conference later this year.

Conclusion

This research has emphasised how it is crucial to continue to gain an understanding of the development of children's social and emotional functioning and how it can be impacted by ecological changes that may occur unexpectedly and without time to plan or put procedures in place for. From an academic and educational practitioner perspective, this research aligns with theoretical perspectives on positive psychology and supports there being a need for changes to current policies and practice in the Irish education system. Policies need to be adapted to ensure that educators are provided with the time and correct training to ensure that they have the knowledge and skills to teach children these crucial social and emotional skills. It is also vital that educational psychologists ensure that work is also done with families, informing them of the strategies and skills that are necessary to support their child's natural social and emotional development, particularly in times of ecological change.

References

Cox, M. J., & Harter, K. S. M. (2003). Parent-child relationships. *Well-being: Positive development across the life course* (pp. 191–204). Lawrence Erlbaum Associates Publishers.

Forman, F., & Rock, M. (2016). *Weaving Wellbeing.* Dublin: Outside the Box.

Kuypers, L. M., & Garcia Winner, M. (2011). *The Zones of Regulation: A Curriculum Designed to Foster Self-regulation and Emotional Control.* Santa Clara, CA: Think Social Publishing, Incorporated.

O'Brien, C. (2017). Teachers to be trained to help reduce pupils' anxiety. *The Irish Times*. Retrieved June 2, 2019, from https://www.irishtimes.com/news/education/teachers-to-be-trained-to-help-reduce-pupils-anxiety-1.3248856

Sroufe, A., Coffino, B., & Carlson, E. (2010). Conceptualizing the Role of Early Experience: Lessons from the Minnesota Longitudinal Study. *Developmental Review*, 36-51. https://doi.org/10.1016/j.dr.2009.12.002

Webster-Statton, C. (2013). *About Carolyn Webster-Statton*. Retrieved from www.incredibleyears.com: http://www.incredibleyears.com/team-view/carolyn-webster-stratton/

Appendices

Appendix A: PROMIS Pediatric Peer Relationships Questionnaire.

Pupil Number: _____ **Date: _____**

Children's Peer Relationships

Please respond to each question or statement by circling one number per row.

In the past 7 days...

	Never	Almost Never	Sometimes	Often	Almost Always
1. I felt accepted by other kids my age.	1	2	3	4	5
2. I was able to count on my friends.	1	2	3	4	5
3. I was able to talk about everything with my friends.	1	2	3	4	5
4. I was good at making friends.	1	2	3	4	5
5. My friends and I helped each other out.	1	2	3	4	5
6. Other kids wanted to be my friend.	1	2	3	4	5
7. Other kids wanted to be with me.	1	2	3	4	5
8. Other kids wanted to talk to me.	1	2	3	4	5
9. I felt good about my friendships.	1	2	3	4	5
10. I liked being around other kids my age.	1	2	3	4	5
11. I played alone and kept to myself.	1	2	3	4	5
12. I shared with other kids (food, games, pens, etc.).	1	2	3	4	5
13. I spent time with my friends.	1	2	3	4	5
14. I was a good friend.	1	2	3	4	5
15. I was able to have fun with my friends.	1	2	3	4	5

PROMIS Paediatric Peer Relationships questionnaire (DeWalt, et al. 2013).

Appendix B: Emotion Expression Scale for Children (EESC)

Pupil Number: _____ **Date: _____**

The Emotion Expression Scale for Children

Please respond to each question or statement by circling one number per row.

We are going to think about how we feel and act in different situations.

	Never True	Almost Never	Sometimes	Often	Almost Always
1. I prefer to keep my feelings to myself.	1	2	3	4	5
2. I don't like to talk about how I feel.	1	2	3	4	5
3. When something bad happens I feel like exploding.	1	2	3	4	5
4. I don't show how I really feel, in order not to hurt other's feelings.	1	2	3	4	5
5. I have feelings that I can't work out.	1	2	3	4	5
6. I usually do not talk to people until they talk to me first.	1	2	3	4	5
7. When I get upset I am afraid to show it.	1	2	3	4	5
8. When I feel upset I don't know how to talk about it.	1	2	3	4	5
9. I often do not know how I am feeling.	1	2	3	4	5
10. People tell me that I should talk about my feelings more.	1	2	3	4	5
11. Sometimes I just don't have the words to describe how I feel.	1	2	3	4	5
12. When I'm sad, I try not to show.	1	2	3	4	5
13. Other people don't like it when you show how you really feel.	1	2	3	4	5
14. I know that I should show my feelings but it is too hard.	1	2	3	4	5
15. I often don't know why I'm angry.	1	2	3	4	5
16. It's hard for me to show how I feel about somebody.	1	2	3	4	5

The Emotion Expression Scale for Children (EESC) (Penza-Clyve & Zeman, 2002).

Appendix C: School Closure / Summer Holiday Social Interactions Questionnaire

Date: _____

How COVID-19 school closures impacted me

Just think of these questions in an average week while the schools were closed.

Number (instead of name):_____ Age:_____

Please circle the answer that applies to you.

I am a boy / girl.

1. Did you have siblings (your own brothers or sisters) to play with while schools were closed?

No, I didn't play with any siblings	No, I have siblings but I didn't really play with them	Unsure	Yes, I have one or two siblings who I played with	Yes, I have many siblings who I played with

2. Did your parents or another adult at home spend quality time with you while schools were closed and over the school holidays?
By quality time we mean playing games, taking you places, talking with you, and helping you feel better when you were upset.

No, we hardly spent any quality time together at all	No, we didn't spend much quality time together	Unsure	Yes, we spent quality time together most days	Yes, we spent quality time together every day

3. Did your parents work at lot while schools were closed and over the school holidays?

No, not at all	No, not much	Unsure	Yes, some of the time	Yes, most of the time

4. Did either of your parents work on the frontline during this COVID-19 outbreak? (examples of frontline workers include HSE staff (hospital staff), Garda, retail (shop). Or other please indicate here: _____-__

No, not at all	No, not much	Unsure	Yes, a little bit	Yes, a lot

5. Did you attend a summer camp over the school holidays?

Yes	No

If yes, how many weeks of summer camp did you attend?

1-2 weeks of camp	3-4 weeks of camp	5-6 weeks of camp	7 or more weeks of camp	Yes, but I cannot remember how many weeks of camp

6. Did you communicate with your friends over the phone/skype during the school holidays and while the schools were closed?

No, not at all	No, not much	Unsure	Yes, a little bit	Yes, a lot

7. Did you play outside with your friends during the school holidays and while the schools were closed?

No, not at all	No, not much	Unsure	Yes, a little bit	Yes, a lot

8. Did you attend any group activities over the summer? For example, gaa training and matches, dance classes, etc. Please list below.

No, not at all	No, not many	Unsure	Yes, once a week	Yes, three times a week

Appendix D: Pre-COVID-19 Original Information and Consent Forms for Parents

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www.ucd.ie/education

Parent Information and Consent Form

Introduction
The purpose of this form is to provide you with information that may affect your decision as to, whether or not, to let your child participate in this research study. Read the information below and decide, whether or not, to give your permission for your child to take part. If you decide to let your child be involved in this study, this form will be used to record your permission.

Researcher's name: Ms. Aileen Hanley
Research school: School of Education (University College Dublin)

Title of research:
THE WEAVING WELLBEING PROGRAMME FROM THE PERSPECTIVES OF TEACHERS AND CHILDREN IN ONE NON-DEIS PRIMARY SCHOOL: AN EXPLORATORY MIXED METHODS CASE STUDY

Who am I and what is this research study about?
While I am a teacher here in Stackallen N.S., I am also currently carrying out research. This research study is being presented for an academic qualification, in part fulfilment for the Professional Doctorate in Educational Psychology with University College Dublin. The purpose of this research study is to explore the effectiveness of the Weaving Wellbeing programme on 3rd to 6th class pupils in a non-DEIS primary school; to improve social and emotional learning within this context and to inform further research on the Weaving Wellbeing programme. This research will be looking particularly at the effects of the Weaving Wellbeing programme on the pupil's subjective wellbeing and social and emotional skills.

Why I am doing this research?
This data will help inform, not only the authors of this programme, but also teachers and schools, to improve social and emotional learning in this primary school and other non-DEIS primary schools all over Ireland. This research will inform further research on the Weaving Wellbeing programme.

Why have you been invited to take part?
Stackallen N.S is being very proactive in implementing this Weaving Wellbeing programme for 10-weeks, as part of the SPHE curriculum. This programme is fully embedded in topics from the SPHE curriculum, so offers the teachers a structured programme for the teaching of wellbeing, emotions and relationships. Weaving Wellbeing is a relatively new programme, which has been piloted and has some positive research following its introduction in the past few years. However, it is important that there is more research carried out on this programme, to explore the effectiveness on the pupils taking part and the views of the teachers.

The researcher notes great emphasis by the government on the introduction of other social and emotional learning programmes into DEIS (disadvantaged) primary schools in Ireland, along with specific teacher training in these programmes. The researcher feels that the introduction of these programmes is also necessary in non-DEIS primary schools. This is due to the fact that social and emotional learning is not just about alleviating problems, but is based on positive psychology techniques, which aim to enhance the positive in children's lives. The researcher is currently working in this primary school, so the pupils in this school have been chosen as a convenience sample.

How will your data be used?
The information from this research will be used as part of the researcher's thesis, and the completed thesis will be available, on completion, to anyone on request.

What will happen if you decide to take part in this research study?'
The children will be learning the Weaving Wellbeing programme as part of their SPHE curriculum, as per school policy, covering the topics of Myself (health and wellbeing, feelings and emotions) and Myself and Others (relating to others). However, the children from 3rd, 4th, 5th and 6th class will also be participating in a research study. If you allow your child to participate in this study:

· They will be asked to fill out (paper and pencil) questionnaires just before the taking part in the Weaving Wellbeing programme. (March 2020)
·They will be asked to fill out the same questionnaires directly following the 10-week Weaving Wellbeing programme. (June 2020)

What are the risks involved in this study?
There are no foreseeable risks to the pupils participating in this study.

What are the possible benefits of this study?
Your child will receive no direct benefit from participating in this study; however the possible benefits to the school and other schools, are that the children will offer insightful information on the Weaving Wellbeing programme, to aid in the future development of social and emotional learning programmes.

Does my child have to participate?

No, your child's participation in the research is voluntary. Your child may decline to participate or to withdraw from participation at any time. Withdrawal or refusing to participate will not affect their relationship with the school in any way. You can agree to allow your child to be in the study now and change your mind later without any penalty.
This research study will take place during regular classroom activities; however, if you do not want your child to participate in the research, the children can have some free reading or writing time while the other children are filling out the questionnaires.

All children will be participating in the Weaving Wellbeing programme, as part of the SPHE curriculum, as per school policy.

What if my child does not want to participate?
In addition to your permission, your child must also agree to participate in the study. If your child does not want to participate they will not be included in the study and there will be no penalty.

Can you change your mind at any stage and withdraw from the study?'
If you or your child initially agree to be part of the study, you can change your minds later without any penalty.

Will there be any compensation?
Neither you nor your child will receive any type of payment for participating in this study.

How will your child's privacy and confidentiality be protected if s/he participates in this research study?
Your child's privacy and the confidentiality of his/her data will be protected by:

· All the children will be allocated a corresponding number to their name.
· That number will be stuck on the front of their homework journal for the duration of the 10-week programme.
· All children will be given a questionnaire and they will be asked to put their number on the questionnaire, instead of their name.
· They will fill out the questionnaires and their class teacher will collect them and give them to the researcher afterwards. Therefore the researcher will just have numbered questionnaires.
· Following the 10-week Weaving Wellbeing programme, the children will be given the same blank questionnaires again. They will be asked to remember their number (which should still be stuck on their homework journal). They will write this number on the questionnaire instead of their name. Again the teacher will collect and give these to the researcher.
·The researcher will keep all questionnaires (without pupil names on them) in a locked cabinet in the researcher's home.
· The consent forms will also be stored in a locked cabinet in the researcher's home.
· Only the researcher and her UCD supervisor will have access to the data.
· Data will be kept until August 2024 and will be securely disposed of then.

How will you find out what happens with this project?
This research will be available from Aileen Hanley on request, upon completion. There will also be a link of a pdf of the findings on the school website for a designated time following the completion of the study. There will also be a printed copy of the thesis freely available for viewing in the school resource library.

What steps will be taken by the researcher or class teachers if your child discloses any harm or injury during this research?
1. React calmly
2. Listen carefully and attentively
3. Take the child seriously
4. Reassure the child that they have taken the right action in talking to you.
5. Do not promise to keep anything secret
6. Ask questions for clarification only. Do not ask leading questions.
7. Check back with the child that what you have heard is correct and understood
8. Do not express any opinions about what the child is alleging
9. Ensure that the child understands the procedures that will follow
10. Make a written record of the conversation as soon as possible, in as much detail as possible
11. Treat the information confidentially, subject to the requirements of Children First Guidance and legislation
12. Speak to the Designated Liaison person in the school, Rebekah Rafferty (school principal), or if she is not available, the Deputy Designated Liaison person, Ashling Burke (vice-principal).
13. Inform the child's parent (unless any danger to the child).
14. Through the Designated Liaison person, offer the teacher, parents or child assistance and guidance towards professional help if necessary.

Whom to contact with questions about the study?
Prior, during or after your participation you can contact the researcher: Aileen Hanley at 086 3280682 or send an email to aileen.hanley1@ucdconnect.ie for any questions. You can also contact Aileen's UCD supervisor, Dr. Jacqueline Horan, at 01-7167948 or email to jacqueline.horan@ucd.ie for any questions.

How will information you provide be recorded, stored and protected?
The consent forms and children's questionnaires will be stored in a locked box in the researcher's home. These questionnaires will not contain any identifiable information. Only the researcher and her supervisor will have access to this data. This research study will be completed and graded by August 2022. All data will be retained for a further two years after this. All data will then be disposed of in August 2024. Under the freedom of information legislation you are entitled to access the information you have provided at any time.

Important Note

Please remember if you have any concerns for your own mental health you can contact:

- Free Call Samaritans 116 123 (Anytime)

If you have any concerns regarding your children's mental health you can contact:

- *Meath North Community Mental Health Team*
  046 – 9079350
  Monday - Friday 9.00am – 5.00pm
  C15 C5TK
  Child and Adolescent Mental Health Service
  Hazel House, Kennedy Road
  Navan
  Co. Meath

Also there is really good online assistance if you have any concerns regarding your child's wellbeing.

- https://www.tusla.ie/parenting-24-seven/

Parent Consent Form

Research title: THE WEAVING WELLBEING PROGRAMME FROM THE PERSPECTIVES OF TEACHERS AND CHILDREN IN ONE NON-DEIS PRIMARY SCHOOL: AN EXPLORATORY MIXED METHODS CASE STUDY

Consent for my child to take part in research

I…… voluntarily agree to allow my child to participate in this research study.

I understand that even if I agree to participate now, I can withdraw at any time without any consequences of any kind.

I understand that I can withdraw permission to use data from my child's questionnaire within two weeks after the collection of the questionnaires (June 2020).

I have had the purpose and nature of the study explained to me in writing and I have had the opportunity to ask questions about the study.

I understand that participation involves my child filling out questionnaires, specifically about the Weaving Wellbeing programme. I also understand that my child will be filling out questionnaires related to their feelings, emotions and peer relationships.

I understand that my child or I will not benefit directly from participating in this research.

I understand that all information my child provides for this study will be treated confidentially.

I understand that in any report on the results of this research my child's identity will remain anonymous. This will be done by using numbers instead of names on the questionnaires.

I understand that disguised extracts from my child's questionnaires may be quoted in the researcher's thesis.

I understand that if my child informs the researcher or their class teacher that they or someone else is at risk of harm they may have to report this to the relevant authorities - they will discuss this with me first but may be required to report with or without my permission.

I understand that signed consent forms and completed anonymised questionnaires will be stored in a locked box in the researcher's room. The researcher and her supervisor will be the only one who has access to this data. The data will be securely disposed of two years following the completion of this research, in August 2024.
I understand that my child's questionnaires will not have any identifying information on them.

I understand that under freedom of information legislation I am entitled to access the information my child has provided at any time while it is in storage, as specified above.
I understand that I am free to contact the researcher to seek further clarification and information.

You are making a decision about allowing your child to participate in this study. Your signature below indicates that you have read the information provided above and have made a decision whether to allow your child to participate in the study or not. If you later decide that you wish to withdraw your permission for your child to participate in the study. you may discontinue his or her participation at any time.

_____ My child MAY participate in this research study.
_____ My child MAY NOT participate in this research study.

_____
Printed Name of Child

_____ _____
Signature of Parent(s) or Legal Guardian Date
I believe the participant is giving informed consent to participate in this study.
---------- ----------
Signature of researcher Date

Appendix E: Pre-COVID-19 Original Information and Consent Forms for Teachers

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Teachers' Information Sheet and Consent Form

Research Title: THE WEAVING WELLBEING PROGRAMME FROM THE PERSPECTIVES OF TEACHERS AND CHILDREN IN ONE NON-DEIS PRIMARY SCHOOL: AN EXPLORATORY MIXED METHODS CASE STUDY

INTRODUCTION
I would like to invite you to take part in a research study. Before you decide you need to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully. Ask questions if anything you read is not clear or if you would like more information. Take time to decide whether or not to take part.

WHO I AM AND WHAT THIS STUDY IS ABOUT
While I am a teacher here in Stackallen N.S., I am also currently carrying out research. This research study is being presented for an academic qualification, in part fulfilment for the Professional Doctorate in Educational Psychology with University College Dublin. The purpose of this research study is to explore the effectiveness of the Weaving Wellbeing programme on 3rd to 6th class pupils in a non-DEIS primary school; to improve social and emotional learning within this context and to inform further research on the Weaving Wellbeing programme. This research will be looking particularly at the effects of the Weaving Wellbeing programme on the pupil's subjective wellbeing and social and emotional skills. The teachers will be asked to discuss aspects of the programme they feel are effective and aspects that could improve effectiveness for this programme.

WHAT WILL TAKING PART INVOLVE?
Taking part in this research will involve one semi-structured interview with the researcher, Aileen Hanley. This interview will be audio-recorded. These audio recordings will be saved on an encrypted USB key, and deleted one week later after they have been transcribed onto a Word document. Once they have been transcribed onto a Word document, they will be completely de-identified. The interview will take place in June 2020, just following the completion of the 10-week programme. This interview will take place in your own classroom or the resource classroom and will take no longer than 10 minutes. You can choose a day after school that suits you best.

WHY HAVE YOU BEEN INVITED TO TAKE PART?
You have been selected as you are one of the teachers teaching the Weaving Wellbeing programme in this primary school, where the research is taking place.

DO YOU HAVE TO TAKE PART?
No, this research is completely voluntary and you have the right to refuse participation, refuse any question and withdraw at any time without any consequence whatsoever.

WHAT ARE THE POSSIBLE RISKS AND BENEFITS OF TAKING PART?
There are no foreseeable risks of taking part. You will not receive any direct benefits from participating in this study; however the possible benefits to the school and other schools, are that the data will offer insightful information on the Weaving Wellbeing programme, to aid in the future development of social and emotional learning programmes.

WILL TAKING PART BE CONFIDENTIAL?
Yes, your interview will be strictly confidential. Each teacher will be allocated a number, for example, Teacher No.1, Teacher No.2., etc. This number will be written on the interview transcripts. Any quotes or data from the interviews that will be used in the thesis, will be written as 'Teacher No.1 stated…', etc. There will be no identifiable information on the final thesis.

The only reason that confidentiality will be breached, is if the researcher has a strong belief that there is a serious risk of harm or danger to either the participant or another individual.

HOW WILL INFORMATION YOU PROVIDE BE RECORDED, STORED AND PROTECTED?
The interviews will be audio recorded and will then be transcribed onto a Word document. The Word document will be completely anonymised. The original audio recording will be deleted once it is transcribed to a word document. The transcribed interviews and the consent forms will be stored in a locked box in the researcher's home. The anonymised interview transcripts will be stored in a different locked box in the researcher's home. Only the researcher and her supervisor will have access to this data. This research study will be completed and graded by August 2022. All data will be retained for a further two years after this. All data will then be erased and disposed of in August 2024. Under the freedom of information legislation you are entitled to access the information you have provided at any time.

WHAT WILL HAPPEN TO THE RESULTS OF THE STUDY?
The results of this study will be included in the researcher's thesis, which will be submitted to UCD for grading. It will then be available to anyone who would like to access it, through Aileen Hanley. There will also be a printed copy freely available in the school resource library.

WHO SHOULD YOU CONTACT FOR FURTHER INFORMATION?
Prior, during or after your participation you can contact the researcher:
Aileen Hanley at 086 3280682 or email to aileen.hanley1@ucdconnect.ie for any questions.

You can also contact Aileen's UCD supervisor, Dr. Jacqueline Horan, at 01-7167948 or email to jacqueline.horan@ucd.ie for any questions.

Thank you for taking the time to read this information.

Important Note

Please see below contact details if you have concerns about your own wellbeing:

- Employee Assistance & Wellbeing programme Freephone Helpline (1800 411 057). This helpline is available 24 hours a day, 365 days a year.

Please see below a protocol to follow if any child becomes distressed or discloses any concerning information to you during or following the research:

Step by step guide if a child presents a concern to you during this research study

1. React calmly
2. Listen carefully and attentively
2. Take the child seriously
3. Reassure the child that they have taken the right action in talking to you.
4. Do not promise to keep anything secret
5. Ask questions for clarification only. Do not ask leading questions.
6. Check back with the child that what you have heard is correct and understood
7. Do not express any opinions about what the child is alleging
8. Ensure that the child understands the procedures that will follow
9. Make a written record of the conversation as soon as possible, in as much detail as possible
10. Treat the information confidentially, subject to the requirements of Children First Guidance and legislation
11. Speak to the Designated Liaison person in the school, Rebekah Rafferty (school principal), or if she is not available, the Deputy Designated Liaison person, Ashling Burke (vice-principal).
12. Inform the child's parent (unless any danger to the child).
13. Through the Designated Liaison person, offer the teacher, parents or child assistance and guidance towards professional help if necessary.

Teacher Consent Form

Research title: THE WEAVING WELLBEING PROGRAMME FROM THE PERSPECTIVES OF TEACHERS AND CHILDREN IN ONE NON-DEIS PRIMARY SCHOOL: AN EXPLORATORY MIXED METHODS CASE STUDY

Consent to take part in research

- I…… voluntarily agree to participate in this research study.
- I understand that even if I agree to participate now, I can withdraw at any time or refuse to answer any question without any consequences of any kind.
- I understand that I can withdraw permission to use data from my interview within two weeks after the interview, in which case the material will be deleted.
- I have had the purpose and nature of the study explained to me in writing and I have had the opportunity to ask questions about the study.
- I understand that participation involves answering questions about social and emotional learning programmes for children, specifically, questions about the Weaving Wellbeing programme.
- I understand that I will not benefit directly from participating in this research.
- I agree to my interview being audio-recorded.
- I understand that all information I provide for this study will be treated confidentially.
- I understand that in any report on the results of this research my identity will remain anonymous. This will be done by changing my name and disguising any details of my interview which may reveal my identity or the identity of people I speak about.
- I understand that disguised extracts from my interview may be quoted in the researcher's thesis.
- I understand that if I inform the researcher that myself or someone else is at risk of harm they may have to report this to the relevant authorities - they will discuss this with me first but may be required to report with or without my permission.
- I understand that signed consent forms and transcript of my interview will be retained in the researcher's room, in a locked cabinet. The researcher and her supervisor will be the only one who has access to this data. The audio recordings will be deleted once they have been transcribed onto Word documents, one week following the interviews. Interview transcripts will be erased and disposed of two years following the completion of this research in August 2024.
- I understand that the transcript of my interview will not have any identifying information on it.
- I understand that under freedom of information legislation I am entitled to access the information I have provided at any time while it is in storage as specified above.
- I understand that I am free to contact the researcher to seek further clarification and information.

Signature of research participant

---------- ----------

Signature of participant Date

Appendix F: Pre-COVID-19 Original Information and Assent Form for Pupils

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education@ucd.ie
www.ucd.ie/education

Child Information and Assent Form

One of the teachers in this school is looking to see if the Weaving Wellbeing programme is good or not, and if so why. You get to say what you think about it and how you think it could be better. You can help by answering some questions honestly and as best you can.

Please circle Yes or No

1. I understand why I am filling out these questionnaires: Yes or No
2. I am happy to fill out these questionnaires in March before we start learning about Weaving Wellbeing: Yes or No
3. I am happy to fill out these questionnaires in June when we finish learning about Weaving Wellbeing: Yes or No
4. I understand that I can change my mind at anytime: Yes or No
5. I understand that I can say no, that I don't want to answer any of the questions at any time: Yes or No
6. I understand that it is important to talk to my teacher or parents if I have any worries: Yes or No

Name: _____ Age:_____ Date:_____

Appendix G: Post-COVID-19 New Information, Consent and Assent Forms

UCD School of Education
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education@ucd.ie
www.ucd.ie/education

Updated Parental Information and Consent Form

This letter is regarding the research title: THE WEAVING WELLBEING PROGRAMME FROM THE PERSPECTIVES OF TEACHERS AND CHILDREN IN ONE NON-DEIS PRIMARY SCHOOL: AN EXPLORATORY MIXED METHODS CASE STUDY

Researcher's name: Ms. Aileen Hanley
Research school: School of Education (University College Dublin)

This letter is to inform you of some changes that have been made to this research and to gain your consent for your child to continue to take part in this research.

Change of purpose

Due to the COVID-19 unplanned school closures, unfortunately it was not possible to complete the teaching of the Weaving Wellbeing programme at this time. However, as part of the original research study, questionnaires had been collected in February as planned which provide information on the children's social and emotional skills at this time. The researcher has now altered the research purpose to adapt to this current situation. The new purpose of this research is to evaluate how selected aspects of children's social and emotional skills may or may not have altered across the COVID-19 unplanned school closures, including the summer holiday period. This short-term ecological change, which was a direct result of an outbreak of the COVID-19 virus, may have impacted on children's social and emotional skills. The primary objective of this research will now be to inform this school and Educational Psychologists working with schools, on additional supports and targeted interventions that may be beneficial to the children when schools resume in September 2020. Secondly, this research strives to identify factors that may have contributed to any changes in the social and emotional skills of the children involved. Finally, this research will add to further research in the areas of unplanned school closures and development of social and emotional skills during middle childhood.

What will be different to the original research

The children will be asked to fill out the same questionnaires again in September 2020, that they filled out in February 2020. They will also be asked to fill out one extra questionnaire

asking about their time off school and some of the activities that they may or may not have taken part in. This questionnaire includes questions about family life that may have impacted on a child's experience during this time. For example, if either parent was a frontline worker or if you had many siblings to play with, if they attended a summer camp, etc. These answers will help inform the researcher of factors that may have impacted on the various experiences for the children while they were off school.

Confidentiality
Again, all of these questionnaires will remain completely confidential to the researcher, as the children will be asked to fill in their number again instead of their name.

Whom to contact with questions about the study?
Prior, during or after your participation you can contact the researcher: Aileen Hanley at 086 3280682 or send an email to aileen.hanley1@ucdconnect.ie for any questions. You can also contact Aileen's UCD supervisor, Dr. Jacqueline Horan, at 01-7167948 or email to jacqueline.horan@ucd.ie for any questions.

Important Note

Please remember if you have any concerns for your own mental health you can contact:

- Free Call Samaritans 116 123 (Anytime)

If you have any concerns regarding your children's mental health you can contact:

- Meath North Community Mental Health Team

046 – 9079350
Monday - Friday 9.00am – 5.00pm
C15 C5TK
Child and Adolescent Mental Health Service
Hazel House, Kennedy Road
Navan
Co. Meath

Also, there is really good online assistance if you have any concerns regarding your child's wellbeing.

- https://www.tusla.ie/parenting-24-seven/

Updated: Parent Consent Form

New Research title: COVID-19 UNPLANNED SCHOOL CLOSURES: AN EVALUATION OF THIS SHORT-TERM ECOLOGICAL CHANGE ON PRIMARY SCHOOL CHILDREN'S SOCIAL AND EMOTIONAL SKILLS FROM THE CHILDREN'S PERSPECTIVES

Consent for my child to take part in research

I …… continue to voluntarily agree to allow my child to participate in this research study.

I understand that the title and purpose of this research has been changed since I read the original information sheet and signed the consent form in February 2020.

I understand that even if I agree to participate now, I can withdraw at any time without any consequences of any kind.

I understand that I can withdraw permission to use data from my child's questionnaire within two weeks after the collection of the questionnaires (October 2020).

I have had the purpose and nature of the study explained to me in writing and I have had the opportunity to ask questions about the study.

I understand that participation involves my child filling out a new questionnaire, specifically asking about some of their activities during the COVID-19 school closures.

I understand that my child will be filling out the same questionnaires they filled out in February 2020 related to their feelings, emotions and peer relationships.

I understand that my child or I will not benefit directly from participating in this research.

I understand that all information my child provides for this study will be treated confidentially.

I understand that in any report on the results of this research my child's identity will remain anonymous. This will be done by using numbers instead of names on the questionnaires.

I understand that disguised extracts from my child's questionnaires may be quoted in the researcher's thesis.

I understand that if my child informs the researcher or their class teacher that they or someone else is at risk of harm, they may have to report this to the relevant authorities - they will discuss this with me first but may be required to report with or without my permission.

I understand that signed consent forms and completed anonymised questionnaires will be stored in a locked box in the researcher's room. The researcher and her supervisor will be the only ones who have access to this data. The data will be securely disposed of two years following the completion of this research, in August 2024.
I understand that my child's questionnaires will not have any identifying information on them.

I understand that under freedom of information legislation I am entitled to access the information my child has provided at any time while it is in storage, as specified above.
I understand that I am free to contact the researcher to seek further clarification and information.

You are making a decision about allowing your child to continue to participate in this study. Your signature below indicates that you have read the information provided above and have made a decision whether to allow your child to continue to participate in the study or not. If you later decide that you wish to withdraw your permission for your child to participate in the study. you may discontinue his or her participation at any time.

_____ My child MAY participate in this research study.
_____ My child MAY NOT participate in this research study.

_____
Printed Name of Child

_____ _____
Signature of Parent(s) or Legal Guardian Date

I believe the participant is giving informed consent to participate in this study.

---------- ----------
Signature of researcher Date

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Scoil an Oideachais UCD

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Belfield, Baile Átha Cliath 4, Éire
education@ucd.ie
www.ucd.ie/education

Updated: Pupil's Information and Assent Form

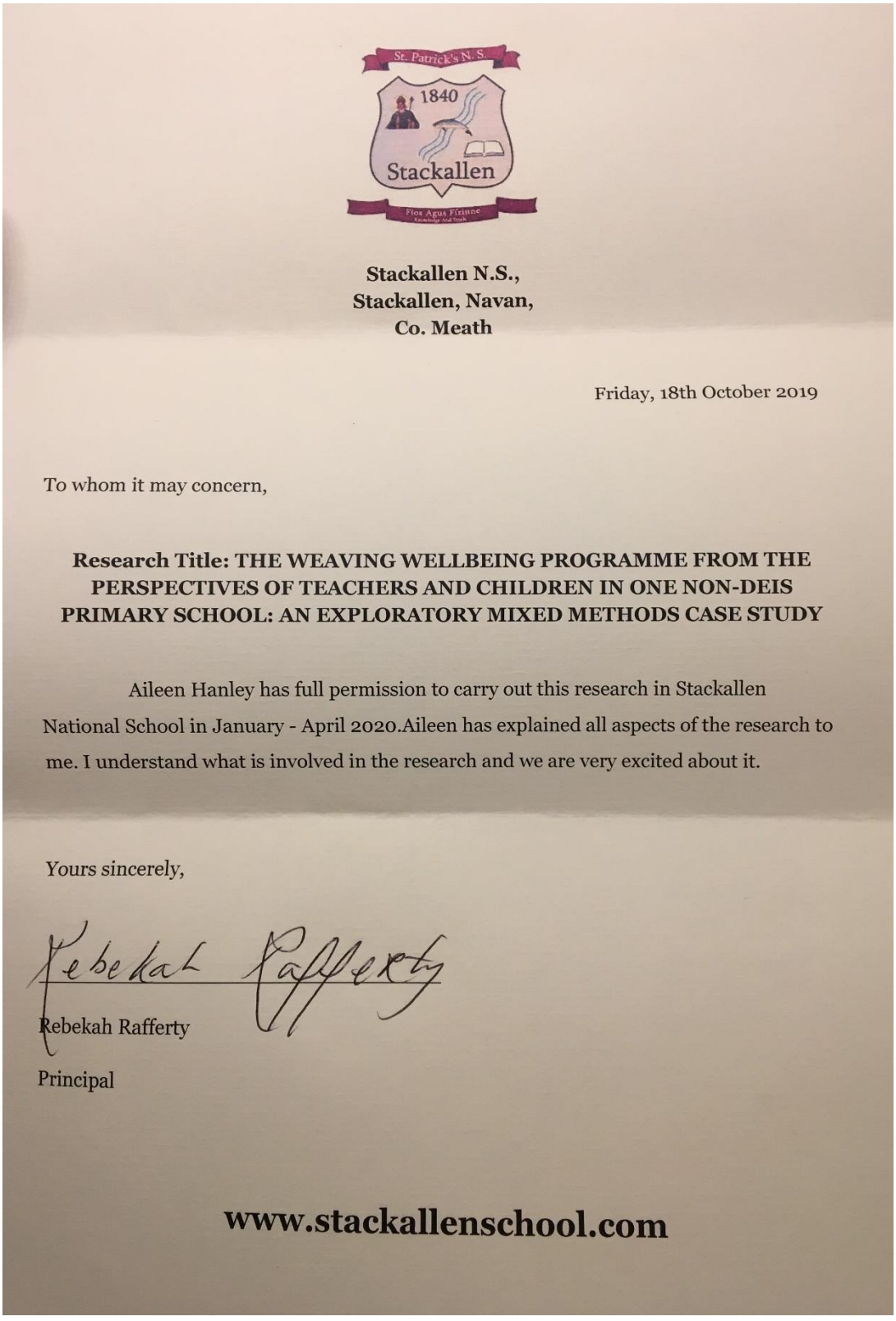
The research that you have been filling out questionnaires for back in February has changed a little bit. Instead of asking about the Weaving Wellbeing programme, you will be asked about your experiences while the schools were closed over the last few months. You will also fill out the same questionnaires again, but this time it will be for a different purpose. It will be to see if the schools being closed may or may not have affected you.

Please circle Yes or No

1. I understand why I am filling out these questionnaires: Yes or No
2. I am happy to continue to take part in this research study, even though the purpose of it has changed: Yes or No
3. I am happy to fill out these questionnaires in September: Yes or No
4. I understand that I can change my mind at anytime: Yes or No
5. I understand that I can say no, that I don't want to answer any of the questions at any time: Yes or No
6. I understand that it is important to talk to my teacher or parents if I have any worries: Yes or No

Name: _____Age:_____ Date:_____

Appendix H: Consent Letter from Participating Primary School



St. Patrick's N.S.
1840
Stackallen
Fios Agus Firinne

Stackallen N.S.,
Stackallen, Navan,
Co. Meath

Friday, 18th October 2019

To whom it may concern,

Research Title: THE WEAVING WELLBEING PROGRAMME FROM THE PERSPECTIVES OF TEACHERS AND CHILDREN IN ONE NON-DEIS PRIMARY SCHOOL: AN EXPLORATORY MIXED METHODS CASE STUDY

Aileen Hanley has full permission to carry out this research in Stackallen National School in January - April 2020.Aileen has explained all aspects of the research to me. I understand what is involved in the research and we are very excited about it.

Yours sincerely,

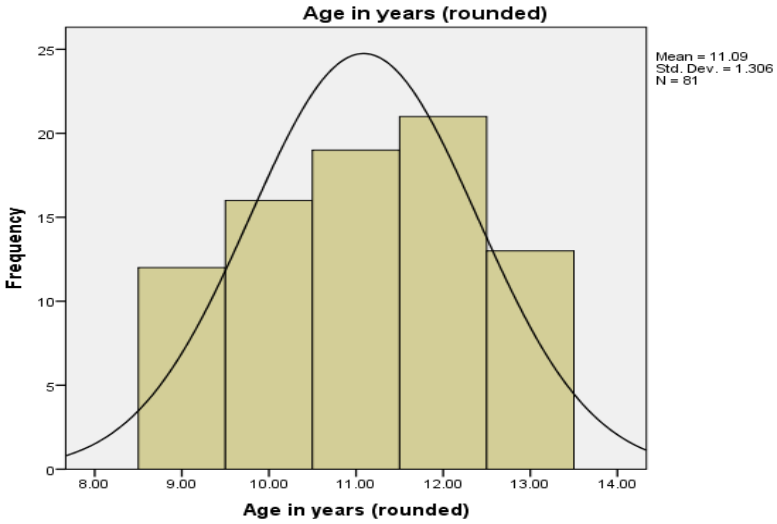
Rebekah Rafferty

Rebekah Rafferty
Principal

www.stackallenschool.com

Appendix I: Details of Data Analysis - Recoded Variables and Cronbach's Alpha

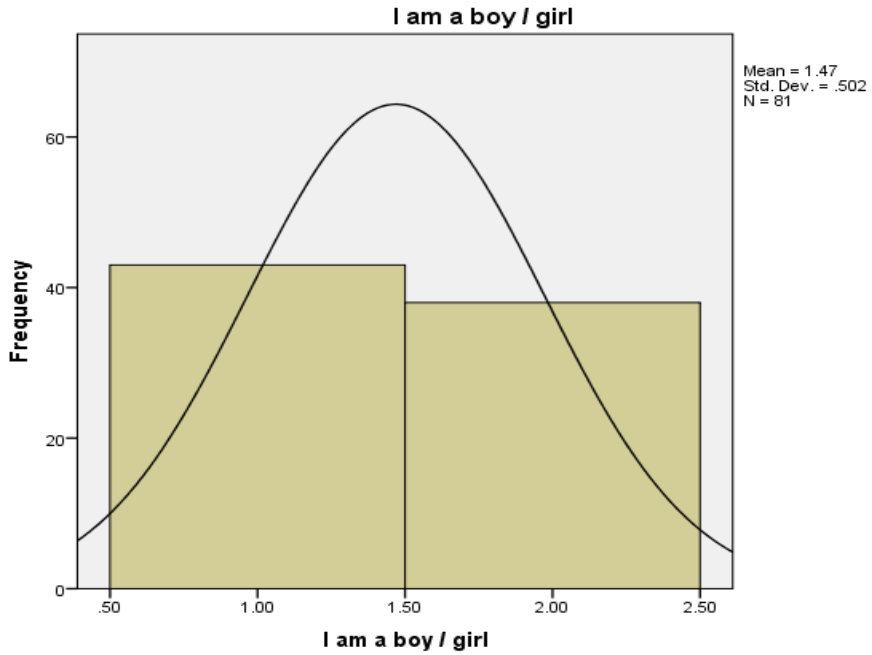
AGE



Descriptives				
			Statistic	Std. Error
Age in years (rounded)	Mean		11.0864	.14508
	95% Confidence Interval for Mean	Lower Bound	10.7977	
		Upper Bound	11.3751	
	5% Trimmed Mean		11.0960	
	Median		11.0000	
	Variance		1.705	
	Std. Deviation		1.30573	
	Minimum		9.00	
	Maximum		13.00	
	Range		4.00	
	Interquartile Range		2.00	
	Skewness		-.129	.267
	Kurtosis		-1.083	.529

Tests of Normality						
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Age in years (rounded)	.178	81	.000	.905	81	.000
a. Lilliefors Significance Correction						

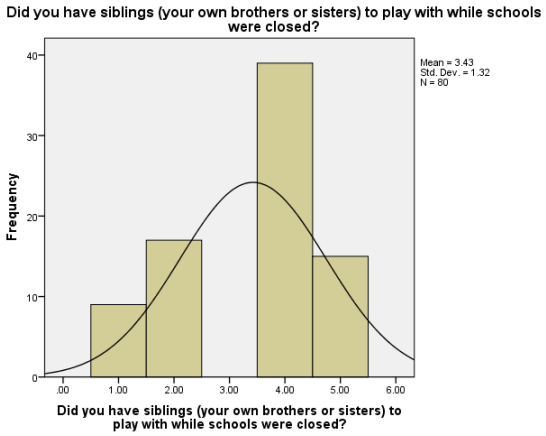
GENDER



Descriptives				
			Statistic	Std. Error
I am a boy / girl	Mean		1.4691	.05580
	95% Confidence Interval for Mean	Lower Bound	1.3581	
		Upper Bound	1.5802	
	5% Trimmed Mean		1.4657	
	Median		1.0000	
	Variance		.252	
	Std. Deviation		.50216	
	Minimum		1.00	
	Maximum		2.00	
	Range		1.00	
	Interquartile Range		1.00	
	Skewness		.126	.267
	Kurtosis		-2.035	.529

Tests of Normality						
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I am a boy / girl	.356	81	.000	.635	81	.000
a. Lilliefors Significance Correction						

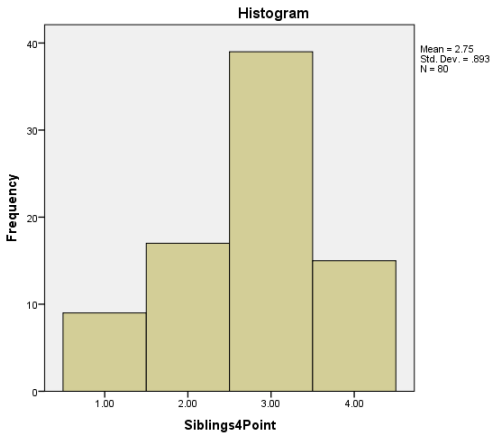
DID YOU HAVE SIBLINGS TO PLAY WITH WHILE SCHOOLS WERE CLOSED?



Original Coding of Results

1. No, I didn't play with any siblings
2. No, I have siblings but I didn't really play with them
3. Unsure
4. Yes, I have one or two siblings who I played with
5. Yes, I have many siblings who I played with

Note: There were no children who ticked number 3 (the unsure option) for this question. In order to make this variable linear, I recoded this variable and recoded the number 3 response as a missing value. See below for new coding.



New Recoded Results on 4-point scale

1. No, I didn't play with any siblings
2. No, I have siblings but I didn't really play with them.
3. Yes, I have one or two siblings who I played with.
4. Yes, I have many siblings who I played with.

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Did you have siblings (your own brothers or sisters) to play with while schools were closed?	.343	80	.000	.810	80	.000
Siblings4Point	.285	80	.000	.854	80	.000

a. Lilliefors Significance Correction

Descriptives

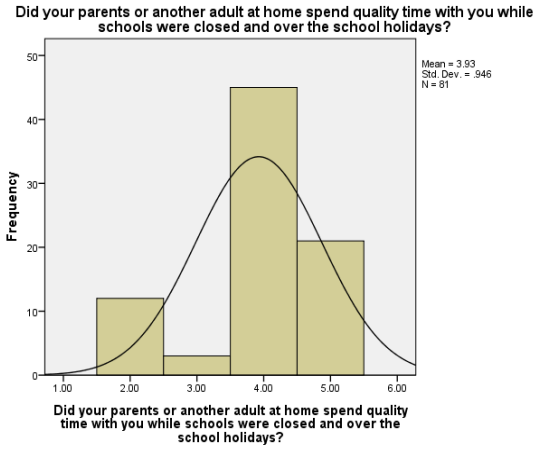
Original

			Statistic	Std. Error
Did you have siblings (your own brothers or sisters) to play with while schools were closed?	Mean		3.4250	.14753
	95% Confidence Interval for Mean	Lower Bound	3.1314	
		Upper Bound	3.7186	
	5% Trimmed Mean		3.4722	
	Median		4.0000	
	Variance		1.741	
	Std. Deviation		1.31952	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		2.00	
	Skewness		-.630	.269
	Kurtosis		-.964	.532

Recoded

			Statistic	Std. Error
Siblings4Point	Mean		2.7500	.09984
	95% Confidence Interval for Mean	Lower Bound	2.5513	
		Upper Bound	2.9487	
	5% Trimmed Mean		2.7778	
	Median		3.0000	
	Variance		.797	
	Std. Deviation		.89301	
	Minimum		1.00	
	Maximum		4.00	
	Range		3.00	
	Interquartile Range		1.00	
	Skewness		-.465	.269
	Kurtosis		-.399	.532

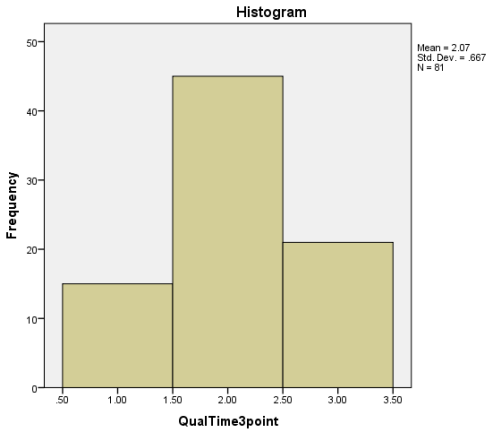
DID YOUR PARENTS OR ANOTHER ADULT AT HOME SPEND QUALITY TIME WITH YOU WHILE SCHOOLS WERE CLOSED AND OVER THE SCHOOL HOLIDAYS?



Original Coding of Results

1. No, we hardly spent any quality time together at all.
2. No, we didn't spend much quality time together.
3. Unsure
4. Yes, we spent quality time together most days.
5. Yes, we spent quality time together every day.

Note: There were no children who gave a response of 1 (no, we hardly spent any quality time together at all), and only 3 children gave the response of 3 (unsure). In order to make this variable linear, I recoded this variable, so recoding this to a three-point scale. See below for new coding details.



New Recoded Results on 3-point scale

1. No, we didn't spend much quality time together.
2. Yes, we spent quality time together most days.
3. Yes, we spent quality time together every day.

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Did your parents or another adult at home spend quality time with you while schools were closed and over the school holidays?	.346	81	.000	.765	81	.000
QualTime3point	.285	81	.000	.795	81	.000

a. Lilliefors Significance Correction

Original

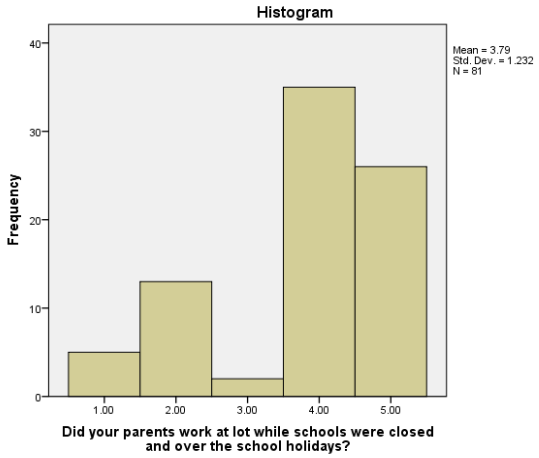
Descriptives

			Statistic	Std. Error
Did your parents or another adult at home spend quality time with you while schools were closed and over the school holidays?	Mean		3.9259	.10508
	95% Confidence Interval for Mean	Lower Bound	3.7168	
		Upper Bound	4.1350	
	5% Trimmed Mean		3.9733	
	Median		4.0000	
	Variance		.894	
	Std. Deviation		.94575	
	Minimum		2.00	
	Maximum		5.00	
	Range		3.00	
	Interquartile Range		1.00	
	Skewness		-.940	.267
	Kurtosis		.172	.529

Recoded

QualTime3point	Mean		2.0741	.07407
	95% Confidence Interval for Mean	Lower Bound	1.9267	
		Upper Bound	2.2215	
	5% Trimmed Mean		2.0823	
	Median		2.0000	
	Variance		.444	
	Std. Deviation		.66667	
	Minimum		1.00	
	Maximum		3.00	
	Range		2.00	
	Interquartile Range		1.00	
	Skewness		-.084	.267
	Kurtosis		-.701	.529

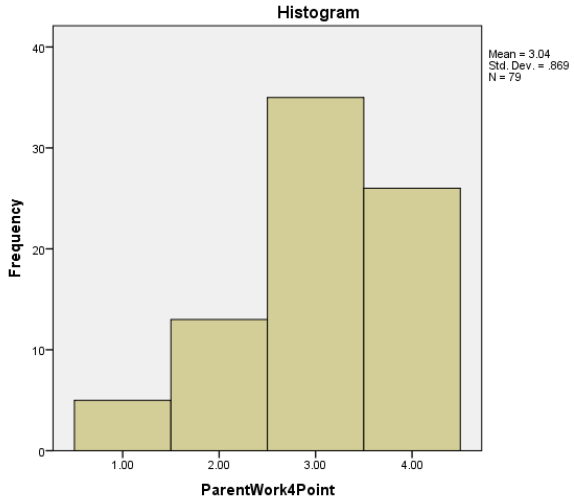
DID YOUR PARENTS WORK A LOT WHILE SCHOOLS WERE CLOSED AND OVER THE SCHOOL HOLIDAYS?



Original Coding of Results

1. No, not at all.
2. No, not much.
3. Unsure.
4. Yes, some of the time.
5. Yes, most of the time.

Note: There were 2 children ticked number 3 (unsure). Therefore, I coded these two responses as missing values to make the data more linear.



New Recoded Results on 4-point scale

1. No, not at all.
2. No, not much.
3. Yes, some of the time.
4. Yes, most of the time.

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Did your parents work at lot while schools were closed and over the school holidays?	.333	79	.000	.781	79	.000
ParentWork4Point	.255	79	.000	.833	79	.000

a. Lilliefors Significance Correction

Descriptives

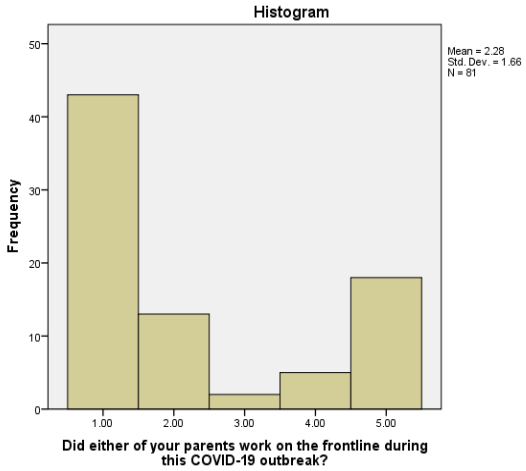
Original

			Statistic	Std. Error
Did your parents work at lot while schools were closed and over the school holidays?	Mean		3.8101	.13964
	95% Confidence Interval for Mean	Lower Bound	3.5321	
		Upper Bound	4.0881	
	5% Trimmed Mean		3.9001	
	Median		4.0000	
	Variance		1.540	
	Std. Deviation		1.24113	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		1.00	
	Skewness		-.991	.271
	Kurtosis		-.181	.535

Recoded

ParentWork4Point	Mean		3.0380	.09776
	95% Confidence Interval for Mean	Lower Bound	2.8434	
		Upper Bound	3.2326	
	5% Trimmed Mean		3.0977	
	Median		3.0000	
	Variance		.755	
	Std. Deviation		.86888	
	Minimum		1.00	
	Maximum		4.00	
	Range		3.00	
	Interquartile Range		1.00	
	Skewness		-.676	.271
	Kurtosis		-.116	.535

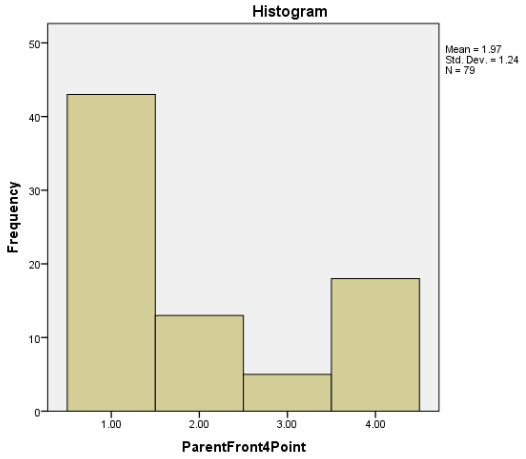
DID EITHER OF YOUR PARENTS WORK ON THE FRONTLINE DURING THIS COVID-19 OUTBREAK?



Original Coding of Results

1. No, not at all
2. No, not much
3. Unsure
4. Yes, a little bit
5. Yes, a lot

Note: There were two children who answered 3 (unsure) for this question. In order to make this variable data linear, I recoded number 3 as missing values. This then made this a 4-point scale.



New Recoded Results on a 4-point scale

1. No, not at all.
2. No, not much.
3. Yes, a little bit.
4. Yes, a lot.

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Did either of your parents work on the frontline during this COVID-19 outbreak?	.319	79	.000	.690	79	.000
ParentFront4Point	.328	79	.000	.714	79	.000

a. Lilliefors Significance Correction

Descriptives

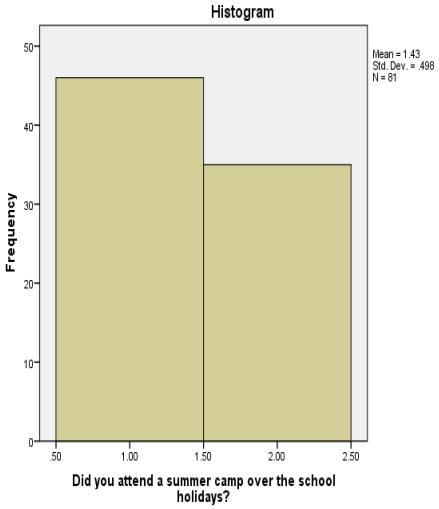
Original

			Statistic	Std. Error
Did either of your parents work on the frontline during this COVID-19 outbreak?	Mean		2.2658	.18870
	95% Confidence Interval for Mean	Lower Bound	1.8901	
		Upper Bound	2.6415	
	5% Trimmed Mean		2.1842	
	Median		1.0000	
	Variance		2.813	
	Std. Deviation		1.67721	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		3.00	
	Skewness		.855	.271
	Kurtosis		-1.086	.535

Recoded

ParentFront4Point	Mean		1.9747	.13952
	95% Confidence Interval for Mean	Lower Bound	1.6969	
		Upper Bound	2.2524	
	5% Trimmed Mean		1.9163	
	Median		1.0000	
	Variance		1.538	
	Std. Deviation		1.24009	
	Minimum		1.00	
	Maximum		4.00	
	Range		3.00	
	Interquartile Range		2.00	
	Skewness		.794	.271
	Kurtosis		-1.086	.535

DID YOU ATTEND A SUMMER CAMP OVER THE SCHOOL HOLIDAYS?



Original Coding of Results and

Unchanged

1. Yes
2. No

Descriptives

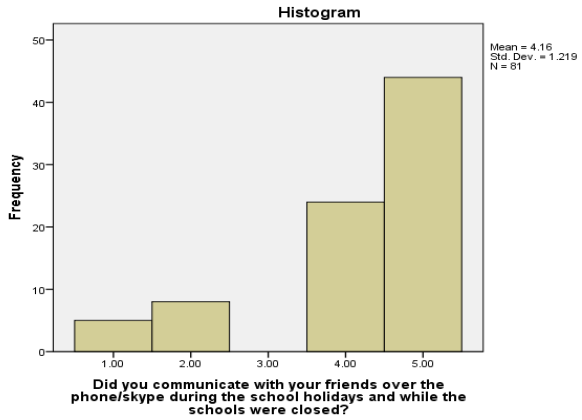
			Statistic	Std. Error
Did you attend a summer camp over the school holidays?	Mean		1.4321	.05538
	95% Confidence Interval for Mean	Lower Bound	1.3219	
		Upper Bound	1.5423	
	5% Trimmed Mean		1.4246	
	Median		1.0000	
	Variance		.248	
	Std. Deviation		.49845	
	Minimum		1.00	
	Maximum		2.00	
	Range		1.00	
	Interquartile Range		1.00	
	Skewness		.279	.267
	Kurtosis		-1.971	.529

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Did you attend a summer camp over the school holidays?	.375	81	.000	.630	81	.000

a. Lilliefors Significance Correction

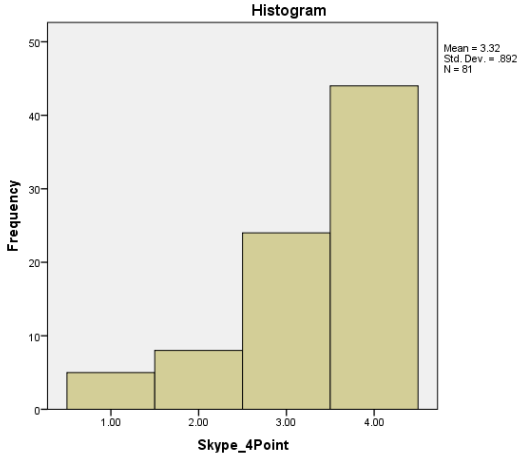
DID YOU COMMUNICATE WITH YOUR FRIENDS OVER THE PHONE / SKYPE DURING THE SCHOOL HOLIDAYS AND WHILE THE SCHOOLS WERE CLOSED?



Original Coding of Results

1. No, not at all
2. No, not much
3. Unsure
4. Yes, a little bit
5. Yes, a lot

Note: There were no children who answered 3 (unsure) for this question. In order to make this variable linear, I recoded number 3 as a missing value, so leaving this as a positively skewed 4-point scale.



New Recoded Results on 4-point scale

1. No, not at all
2. No, not much
3. Yes, a little bit
4. Yes, a lot

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Did you communicate with your friends over the phone/skype during the school holidays and while the schools were closed?	.298	81	.000	.690	81	.000
Skype_4Point	.320	81	.000	.740	81	.000

a. Lilliefors Significance Correction

Descriptives

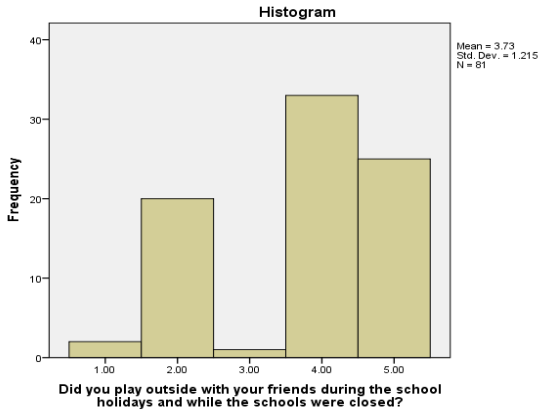
Original

			Statistic	Std. Error
Did you communicate with your friends over the phone/skype during the school holidays and while the schools were closed?	Mean		4.1605	.13547
	95% Confidence Interval for Mean	Lower Bound	3.8909	
		Upper Bound	4.4301	
	5% Trimmed Mean		4.2894	
	Median		5.0000	
	Variance		1.486	
	Std. Deviation		1.21919	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		1.00	
	Skewness		-1.503	.267
	Kurtosis		1.123	.529

Recoded

Skype_4Point	Mean		3.3210	.09911
	95% Confidence Interval for Mean	Lower Bound	3.1237	
		Upper Bound	3.5182	
	5% Trimmed Mean		3.4122	
	Median		4.0000	
	Variance		.796	
	Std. Deviation		.89201	
	Minimum		1.00	
	Maximum		4.00	
	Range		3.00	
	Interquartile Range		1.00	
	Skewness		-1.227	.267
	Kurtosis		.695	.529

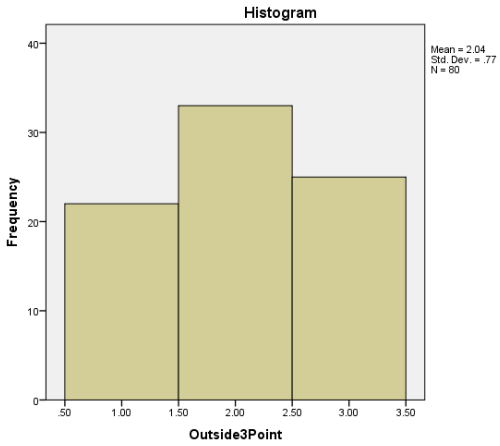
DID YOU PLAY OUTSIDE WITH YOUR FRIENDS DURING THE SCHOOL HOLIDAYS AND WHILE THE SCHOOLS WERE CLOSED?



Original Coding of Results

1. No, not at all
2. No, not much
3. Unsure
4. Yes, a little bit
5. Yes, a lot

Note: Only 2 children answered 1 (no, not at all), so I recoded this by combining the 1 with the 2 answer (not much). Only one child answered with 3 (unsure), so I recoded this as a missing value. I recoded this variable to make it linear.



New Recoded Results on a 3-point scale

1. No
2. Yes, a little bit
3. Yes, a lot

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Did you play outside with your friends during the school holidays and while the schools were closed?	.310	80	.000	.795	80	.000
Outside3Point	.207	80	.000	.807	80	.000

a. Lilliefors Significance Correction

Descriptives

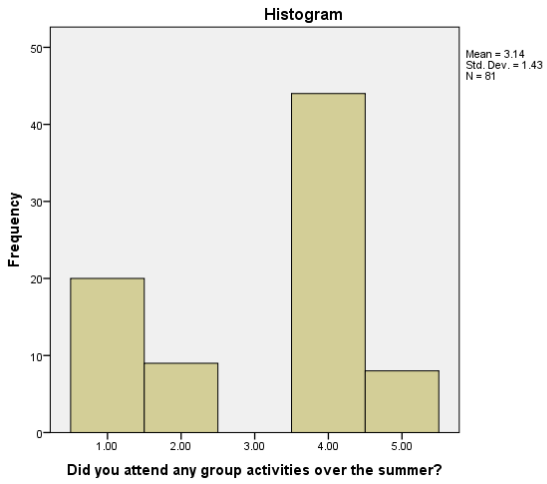
Original

			Statistic	Std. Error
Did you play outside with your friends during the school holidays and while the schools were closed?	Mean		3.7375	.13634
	95% Confidence Interval for Mean	Lower Bound	3.4661	
		Upper Bound	4.0089	
	5% Trimmed Mean		3.7917	
	Median		4.0000	
	Variance		1.487	
	Std. Deviation		1.21950	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		3.00	
	Skewness		-.680	.269
	Kurtosis		-.905	.532

Recoded

Outside3Point	Mean		2.0375	.08613
	95% Confidence Interval for Mean	Lower Bound	1.8661	
		Upper Bound	2.2089	
	5% Trimmed Mean		2.0417	
	Median		2.0000	
	Variance		.594	
	Std. Deviation		.77040	
	Minimum		1.00	
	Maximum		3.00	
	Range		2.00	
	Interquartile Range		2.00	
	Skewness		-.065	.269
	Kurtosis		-1.297	.532

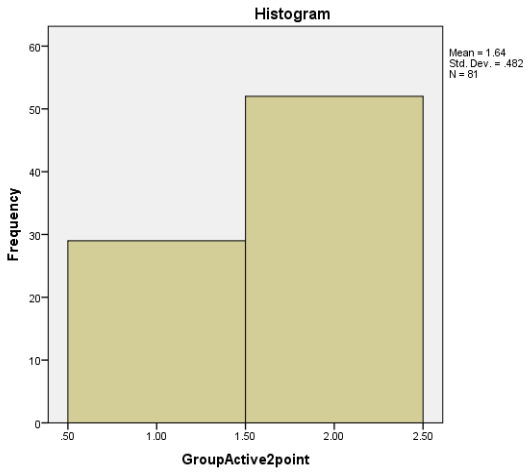
DID YOU ATTEND ANY GROUP ACTIVITIES OVER THE SUMMER?



Original Coding of Results

1. No, not at all
2. No, not many
3. Unsure
4. Yes, once a week
5. Yes, three times a week

Note: I recoded this variable, to make it linear. I combined 1 and 2 together. There were no responses of number 3, so I recoded this as missing. I also combined 4 and 5 together. This then became a 2-point scale, making it linear.



New Recoded Results on a 2-point scale

1. No
2. Yes

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Did you attend any group activities over the summer?	.369	81	.000	.757	81	.000
GroupActive2point	.413	81	.000	.606	81	.000

a. Lilliefors Significance Correction

Descriptives

Original

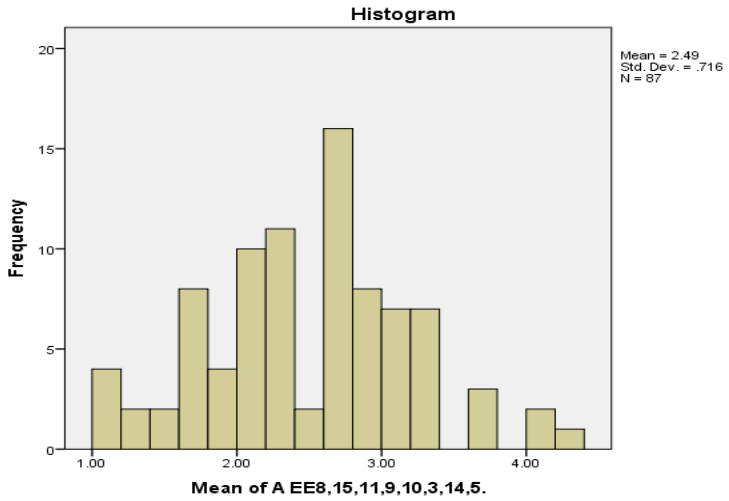
			Statistic	Std. Error
Did you attend any group activities over the summer?	Mean		3.1358	.15885
	95% Confidence Interval for Mean	Lower Bound	2.8197	
		Upper Bound	3.4519	
	5% Trimmed Mean		3.1509	
	Median		4.0000	
	Variance		2.044	
	Std. Deviation		1.42962	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		2.50	
	Skewness		-.561	.267
	Kurtosis		-1.334	.529

Recoded

GroupActive2point	Mean		1.6420	.05360
	95% Confidence Interval for Mean	Lower Bound	1.5353	
		Upper Bound	1.7486	
	5% Trimmed Mean		1.6578	
	Median		2.0000	
	Variance		.233	
	Std. Deviation		.48241	
	Minimum		1.00	
	Maximum		2.00	
	Range		1.00	
	Interquartile Range		1.00	
	Skewness		-.604	.267
	Kurtosis		-1.678	.529

MEAN OF POOR AWARENESS SUBSCALE (EMOTIONAL EXPRESSION QUESTIONNAIRE)

TIME 1



Descriptives

			Statistic	Std. Error
Mean of A EE8,15,11,9,10,3,14,5.	Mean		2.4901	.07679
	95% Confidence Interval for Mean	Lower Bound	2.3375	
		Upper Bound	2.6428	
	5% Trimmed Mean		2.4843	
	Median		2.6250	
	Variance		.513	
	Std. Deviation		.71629	
	Minimum		1.00	
	Maximum		4.38	
	Range		3.38	
	Interquartile Range		.88	
	Skewness		.089	.258
	Kurtosis		-.087	.511

Tests of Normality

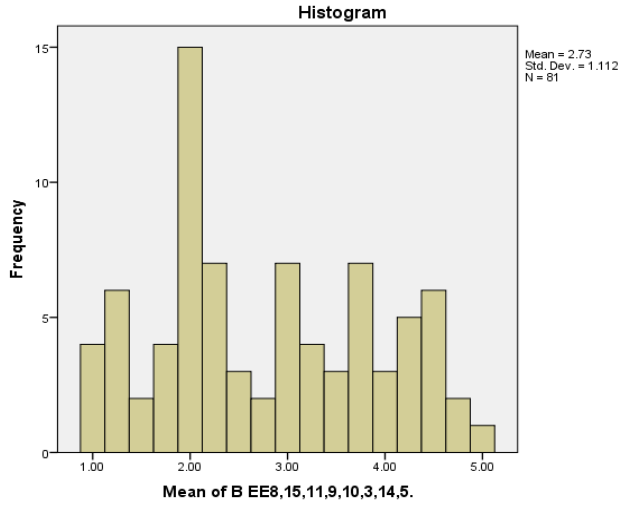
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Mean of A EE8,15,11,9,10,3,14,5.	.080	87	.200*	.989	87	.648

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

MEAN OF POOR AWARENESS SUBSCALE (EMOTIONAL EXPRESSION QUESTIONNAIRE)

TIME 2



We double checked this data, and although it is unusual, it is inputted correctly.

Descriptives

			Statistic	Std. Error
Mean of B EE8,15,11,9,10,3,14,5.	Mean		2.7284	.12352
	95% Confidence Interval for Mean	Lower Bound	2.4826	
		Upper Bound	2.9742	
	5% Trimmed Mean		2.7139	
	Median		2.5000	
	Variance		1.236	
	Std. Deviation		1.11169	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		1.81	
	Skewness		.247	.267
	Kurtosis		-1.125	.529

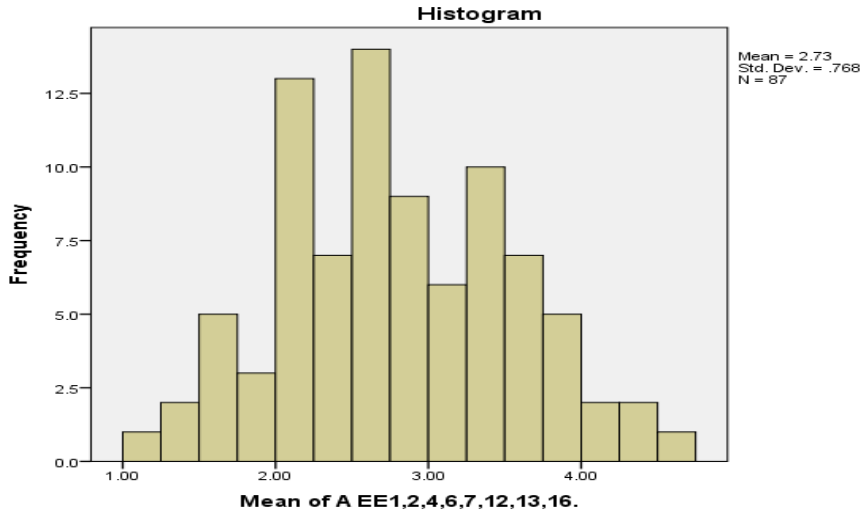
Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Mean of B EE8,15,11,9,10,3,14,5.	.138	81	.001	.946	81	.002

a. Lilliefors Significance Correction

MEAN OF EMOTIONAL RELUCTANCE SUBSCALE (EMOTIONAL EXPRESSION QUESTIONNAIRE)

TIME 1



Descriptives

			Statistic	Std. Error
Mean of A EE1,2,4,6,7,12,13,16.	Mean		2.7313	.08230
	95% Confidence Interval for Mean	Lower Bound	2.5677	
		Upper Bound	2.8949	
	5% Trimmed Mean		2.7261	
	Median		2.6250	
	Variance		.589	
	Std. Deviation		.76761	
	Minimum		1.13	
	Maximum		4.50	
	Range		3.38	
	Interquartile Range		1.25	
	Skewness		.099	.258
	Kurtosis		-.585	.511

Tests of Normality

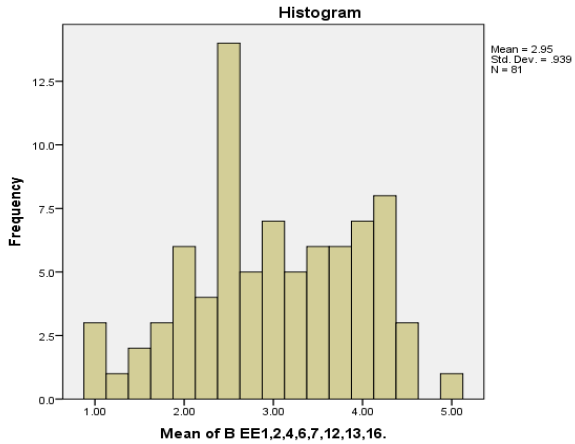
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Mean of A EE1,2,4,6,7,12,13,16.	.072	87	.200*	.986	87	.500

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

MEAN OF EMOTIONAL RELUCTANCE SUBSCALE (EMOTIONAL EXPRESSION QUESTIONNAIRE)

TIME 2



We double checked this data and it is inputted correctly.

Descriptives

			Statistic	Std. Error
Mean of B EE1,2,4,6,7,12,13,16.	Mean		2.9460	.10435
	95% Confidence Interval for Mean	Lower Bound	2.7383	
		Upper Bound	3.1537	
	5% Trimmed Mean		2.9608	
	Median		2.8750	
	Variance		.882	
	Std. Deviation		.93915	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		1.38	
	Skewness		-.091	.267
	Kurtosis		-.718	.529

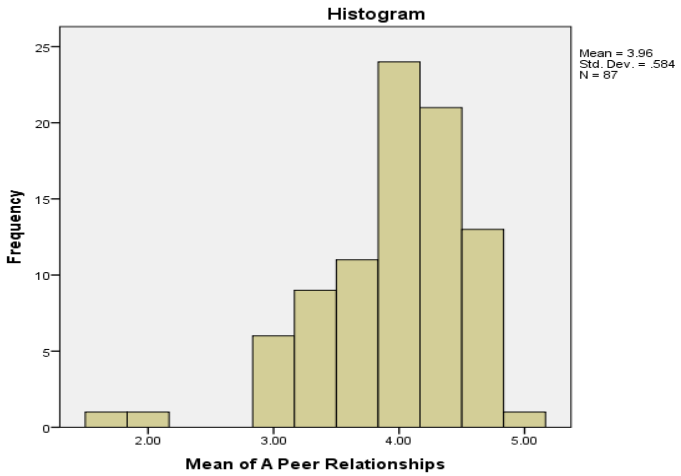
Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Mean of B EE1,2,4,6,7,12,13,16.	.090	81	.159	.977	81	.160

a. Lilliefors Significance Correction

MEAN OF PEER RELATIONSHIPS

TIME 1



Note: While this data does not look linear, I am not going to recode it. This bi-modal data is relevant and important. There are some outliers (1 and 2s), which indicate a subgroup of children who indicate different results in peer relationships to the rest of the class.

Descriptives

			Statistic	Std. Error
Mean of A Peer Relationships	Mean		3.9617	.06262
	95% Confidence Interval for Mean	Lower Bound	3.8372	
		Upper Bound	4.0862	
	5% Trimmed Mean		4.0023	
	Median		4.0667	
	Variance		.341	
	Std. Deviation		.58408	
	Minimum		1.67	
	Maximum		4.87	
	Range		3.20	
	Interquartile Range		.73	
	Skewness		-1.209	.258
	Kurtosis		2.333	.511

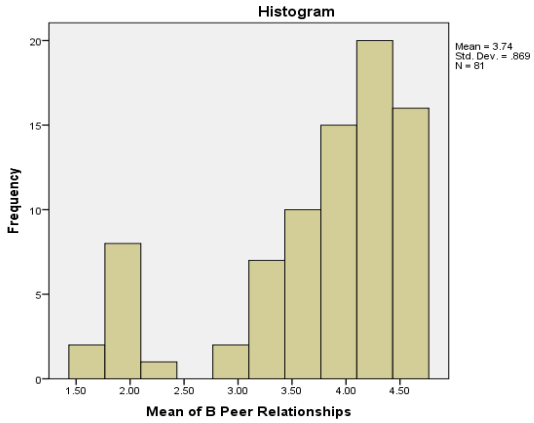
Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Mean of A Peer Relationships	.136	87	.000	.922	87	.000

a. Lilliefors Significance Correction

MEAN OF PEER RELATIONSHIPS

TIME 2



Note: This is bi-modal data, which has two naturally occurring subgroups. Bi-modal is a statistical distribution with two peeks.

Descriptives

			Statistic	Std. Error
Mean of B Peer Relationships	Mean		3.7440	.09654
	95% Confidence Interval for Mean	Lower Bound	3.5519	
		Upper Bound	3.9362	
	5% Trimmed Mean		3.8036	
	Median		4.0000	
	Variance		.755	
	Std. Deviation		.86887	
	Minimum		1.60	
	Maximum		4.73	
	Range		3.13	
	Interquartile Range		.90	
	Skewness		-1.332	.267
	Kurtosis		.721	.529

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Mean of B Peer Relationships	.186	81	.000	.813	81	.000

a. Lilliefors Significance Correction

Data Analysis - Cronbach's Alpha

Emotional Expression – 'Poor Awareness' Subscale Time 1 (Mean of Questions 8, 15, 11, 9, 10, 3, 14, 5)

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.737	.741	8

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
When something bad happens I feel like exploding.	17.2907	27.620	.326	.197	.729
I have feelings that I can't work out.	17.2674	25.092	.477	.364	.701
When I feel upset I don't know how to talk about it.	17.0116	25.306	.514	.400	.694
I often do not know how I am feeling.	17.8372	25.691	.556	.435	.689
People tell me that I should talk about my feelings more often.	17.8140	28.859	.168	.122	.763
Sometimes I just don't have the words to describe how I feel.	16.9767	25.882	.473	.262	.702
I know that I should show my feelings but it is too hard.	17.2791	23.898	.589	.456	.676
I often don't know why I am angry.	17.5465	26.721	.387	.244	.719

Emotional Expression – 'Poor Awareness' Subscale Time 2 (Mean of Questions 8, 15, 11, 9, 10, 3, 14, 5)

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.919	.919	8

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
When I feel upset I don't know how to talk about it.	18.9506	62.323	.693	.542	.912
I often don't know why I am angry.	19.0988	59.665	.786	.677	.904
Sometimes I just don't have the words to describe how I feel.	18.9753	62.049	.767	.620	.906
I often do not know how I am feeling.	19.0370	59.986	.771	.671	.905
People tell me that I should talk about my feelings more often.	19.2963	63.261	.614	.413	.918
When something bad happens I feel like exploding.	19.0123	61.912	.693	.534	.912
I know that I should show my feelings but it is too hard.	19.2963	62.586	.711	.563	.910
I have feelings that I can't work out.	19.1235	58.260	.820	.728	.901

Emotional Expression – 'Expressive Reluctance' Subscale Time 1 (Mean of Questions 1, 2, 4, 6, 7, 12, 13, 16.)

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.778	.773	8

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I prefer to keep my feelings to myself.	18.7241	30.039	.576	.599	.741
I do not like to talk about how I feel.	19.0000	29.349	.547	.597	.743
I don't show how I really feel, in order not to hurt other's feelings.	18.7471	31.400	.366	.157	.772
I usually do not talk to people until they talk to me first.	19.8621	33.446	.219	.104	.793
When I get upset I am afraid to show it.	18.8621	27.051	.607	.512	.730
When I'm sad, I try not to show it.	18.6667	26.550	.664	.594	.719
Other people don't like it when you show how you really feel.	19.8736	32.902	.268	.110	.786
It's hard for me to show how I feel about somebody.	19.2184	27.568	.605	.422	.731

Emotional Expression – 'Expressive Reluctance' Subscale Time 2 (Mean of Questions 1, 2, 4, 6, 7, 12, 13, 16.)

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.868	.871	8

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I prefer to keep my feelings to myself.	20.4074	43.569	.748	.706	.840
I do not like to talk about how I feel.	20.4568	44.001	.681	.680	.846
I don't show how I really feel, in order not to hurt other's feelings.	20.3704	44.936	.607	.490	.854
I usually do not talk to people until they talk to me first.	20.7654	43.832	.570	.376	.859
When I get upset I am afraid to show it.	20.4815	44.203	.638	.678	.850
When I'm sad, I try not to show it.	20.4444	43.450	.614	.614	.853
Other people don't like it when you show how you really feel.	21.3086	45.866	.499	.356	.865
It's hard for me to show how I feel about somebody.	20.7407	42.394	.645	.470	.850

Peer Relationships Time 1 (Mean of 15 questions)

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Stdandardized Items	N of Items
.843	.859	15

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I felt accepted by other kids my age.	55.1724	65.516	.649	.592	.824
I was able to count on my friends.	55.2184	65.545	.561	.516	.828
I was able to talk about everything with my friends.	55.6897	62.263	.686	.526	.819
I was good at making friends.	55.4943	67.183	.433	.433	.836
My friends and I helped each other out	55.1149	65.894	.651	.524	.824
Other kids wanted to be my friend.	55.9770	64.511	.545	.545	.829
Other kids wanted to be with me.	55.8621	64.330	.638	.555	.823
Other kids wanted to talk to me.	55.6552	63.089	.708	.624	.819
I felt good about my friendships.	55.0575	66.264	.591	.678	.827
I liked being around other kids my age.	55.2989	66.607	.482	.442	.833
I played alone and kept to myself.	57.4253	84.364	-.390	.301	.889
I shared with other kids (food, games, pens, etc.).	55.3448	69.601	.405	.241	.837
I spent time with my friends.	54.8391	68.578	.673	.581	.827
I was a good friend.	55.0000	71.860	.306	.353	.842
I was able to have fun with my friends.	54.8046	68.624	.569	.651	.830

Peer Relationships Time 2 (Mean of 15 questions)

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.921	.928	15

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I felt accepted by other kids my age.	52.0247	144.449	.799	.722	.911
I was able to count on my friends.	51.9012	142.965	.877	.907	.909
I was able to talk about everything with my friends.	52.4568	144.926	.770	.702	.912
I was good at making friends.	52.5432	143.951	.734	.643	.913
My friends and I helped each other out	52.0741	142.594	.848	.819	.909
Other kids wanted to be my friend.	52.8272	147.695	.722	.805	.914
Other kids wanted to be with me.	52.6667	145.325	.779	.828	.912
Other kids wanted to talk to me.	52.5556	145.675	.742	.785	.913
I felt good about my friendships.	51.9259	142.969	.899	.902	.908
I liked being around other kids my age.	51.9753	142.149	.843	.835	.909
I played alone and kept to myself.	54.1235	196.060	-.772	.726	.955
I shared with other kids (food, games, pens, etc.).	53.6173	157.064	.256	.241	.931
I spent time with my friends.	51.8148	146.303	.883	.910	.910
I was a good friend.	51.8889	145.775	.855	.869	.910
I was able to have fun with my friends.	51.8519	144.078	.799	.811	.911