Examining the Impact of Theraplay Interventions within Education Settings on Classroom Behaviour and Student-Teacher Relationships for Male Students Aged Three to Eleven-Years-Old Identified with Social, Emotional and Mental Health (SEMH) Difficulties: A Multiple Case Study Design

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Abstract

Negative risk factors relating to Social Emotional Mental Health can include educational and later-life difficulties (Tellis-James & Fox, 2017). This suggests more should be done to support young people who are at risk or showing signs of social, emotional and behavioural difficulties (National Institute for Health and Clinical Excellence, 2018) and education settings are one environment that can offer this support (Cefai & Cooper, 2009).

Theraplay is a play-based intervention which has traditionally been used with children and their caregivers, and has been expanded for use within education settings (Tucker, Schieffer, Wills, Hull, & Murphy, 2017). However, a systematic literature review highlights that the evidence-base for Theraplay in education settings is limited. The purpose of this study is, therefore, to explore how Theraplay interventions are implemented within education settings and their effects on behaviour and student-teacher relationships for children identified with SEMH needs.

A pragmatic mixed method multiple-case embedded design was used. The 'cases' were two separate educational settings implementing two different Theraplay interventions. Case Study One (CS1) was a specialist school that was implementing a whole-class Group Theraplay intervention called 'Sunshine Circles' and Case Study Two (CS2) was a nursery implementing a Group Theraplay intervention to a select number of children. In total there were seven participants, three children from CS1 and four children in CS2.

Within each case study, a Single Case Experimental Design (AB design) was used to monitor the impact of the intervention on the children's behaviour using repeated observational methods. The data was triangulated with pre- and post-questionnaires; the Strength and Difficulties Questionnaire (SDQ, Goodman, 1997) and Student-

Teacher Relationship Questionnaire (STRS, Pianta, 2001) and post-intervention interviews with Theraplay Facilitators and education staff.

The findings demonstrated two different approaches to implementing Theraplay interventions, including factors identified as being important to the implementation of the intervention and factors that were reported as challenges and barriers.

With regards to the impact on children's behaviour in CS1, visual and Tau-U analysis found an increase in observed incidents of the target behaviour 'cooperative play' for two children in the intervention phase. There were no other changes observed for the other target behaviours. T-SDQ data showed limited changes in pre- and post-scores. For CS2, no changes were observed in the SCED data, however there was a reliable change in at least one SDQ category for each of the four children. Theraplay Facilitators reported positive changes in behaviour within the group, and two of the four children's Key Workers reported positive changes observed outside of the group.

In relation to student-teacher relationships, for CS1 both quantitative and qualitative data showed little change in this area. In CS2, there were reported improvements from the Key Workers and changes observed in the STRS results, however the influence of external factors such as the intervention being embedded within the nursery, suggest that it cannot be concluded that any changes observed were due to the Group Theraplay alone.

The findings are considered in relation to the methodological issues which arose during the research. By highlighting the strengths and limitations of the methodology employed, areas for future research have been noted.

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List of Acronyms

Acronym	Description
ADHD	Attention Deficit Hyperactivity Disorder
BESD	Behavioural, Emotional and Social difficulties
CCT	Crossing clinical threshold
CS1	Case Study One
CS2	Case Study Two
DBR	Direct Behaviour Rating Scale
DFE	Department for Education
DoH	Department of Health
DV	Dependent Variable
EHCP	Education Health and Care Plan
GT	Group Theraplay
IV	Independent Variable
IWM	Internal Working Models
KW	Key Worker
NICE	National Institute for Clinical Excellence
NM	Nursery Manager
PND	Percentage of non-overlapping data points
POD	Percentage of overlapping data points
RC	Reliable Change
RCC	Reliable Change Criterion
SC	Sunshine Circles
SEN	Special Educational Needs
SCED	Single Case Experimental Design
SEBD	Social, Emotional and Behavioural Difficulties

SDQ	Strength and Difficulties Questionnaire
SEMH	Social and Emotional Mental Health
SENCO	Special Education Needs Coordinator
STRS	Student Teacher Relationship Scale
TA	Teaching Assistant
TB1	Target Behaviour One
TB2	Target Behaviour Two
TEP	Trainee Educational Psychologist
TF	Theraplay Facilitator
TG	Theraplay Group
TM	Theraplay Manager
T-SDQ	Teacher Strength and Difficulties Questionnaire

Introduction

1.1 Research Focus

The aim of this research is to examine the impact of Theraplay interventions within education settings (on behaviour and student-teacher relationships), with children who have been identified as having social, emotional and mental health (SEMH) needs. Theraplay is described as a play-based intervention based on attachment theory and is traditionally used to support parent-child relationships (Booth & Jernberg, 2010). It has also been argued to be an approach that can be applied within education settings to support children's behaviours through individual and group interventions (Francis, Bennion, & Humrich, 2017; Rubin & Tregay, 1989; Tucker et al., 2017), however there is limited evidence to its effectiveness within these settings.

1.2 Professional and Personal Interest

Prior to being a Trainee Educational Psychologist, the researcher worked as an Assistant Psychologist within a project that supported the educational and emotional needs of children in care. During this time, the researcher received training in Theraplay and attachment training from Louise Bombèr[1], and both approaches were used to inform a model of intervention within the project. The overall aim of the project was to support children to build relationships with peers and education staff and to be 'ready to learn'. The researcher was fortunate enough to work with some amazing children and staff members and is very grateful to have learnt so much from the experience.

During that time, while the project appeared to have a positive impact for some children, it was notable very few education staff queried the evidence-base to the Theraplay-informed interventions that were being provided. While the project was always completed with ethical principles at the forefront (with close monitoring of both children and staff's welfare), few questions were asked regarding the potential

[1] Louise Bombèr is a specialist teacher, a therapist and a Dyadic Developmental Psychotherapy certified practitioner. She created a 7-day intensive course, accredited by the University of Brighton, for staff wanting to become Attachment Leads in their schools and authorities.

impact of this work, including its benefits and costs. This was particularly concerning given we were working with very vulnerable children. The researcher's personal experience working in a Child Adolescent Mental Health Service and reading of critical psychology (e.g. Newnes & Radcliffe, 2005), has led to the belief that interventions have the potential to create both benefit and harm and therefore should always be carefully considered. Work by people such as Goldacre (2009) have also highlighted the dangers of misapplication of science and the use of pseudoscience to educational settings (e.g. Brain Gym)

The project was written up and published (Francis et al., 2017) and while the research had a number of methodological limitations, it is at least available for practitioners to access and make informed decisions with regards to the applicability and usefulness of Theraplay. The research also highlighted areas that can be further explored and when teaching of Single Case Experimental Designs was provided in Year One, this helped to expand thinking with regards to an alternative methodology to group designs to evaluate for these types of interventions.

The researcher has not yet made any definite conclusions as to whether Theraplay is effective or not, and acknowledges that practice-based evidence can be just as valuable to evidence-based practice (Fox, 2011). While it is certainly an intervention that can be enjoyable to complete, the researcher feels strongly that evaluating this intervention should help ensure future practitioners have as much information as possible to help inform their decisions as to whether Theraplay is a suitable intervention for the children and young people that they work with.

1.3 Structure of the Thesis

- Chapter 2 explores the relevant literature which informed the rationale and research questions
- Chapter 3 discusses and critiques relevant methodology and then presents the methodology used in this research and its implementation
- Chapter 4 presents results from the research
- Chapter 5 presents a discussion of the findings and links to the literature. Strengths and limitations are explored, and implications are discussed.

- Chapter 6 provides a summary of the main findings of the research and conclusions.

2 Literature Review

2.1 Introduction

Within this chapter, social emotional and mental health difficulties (SEMH) and their significance within education will be explored. Arguments for the role of educational settings in supporting these needs will be presented with an overview of the rationale to play-based interventions. Theraplay will then be introduced. In order to explore how Theraplay has been applied and researched in education, a systematic review of Theraplay interventions within education is provided, finishing with an argument that more research is needed into the use of Theraplay interventions in education settings.

2.2 Definition of Social Emotional and Mental Health Difficulties (SEMH)

The term 'social, emotional and mental health' (SEMH) difficulties was introduced in the Special Educational Needs and Disability (SEND) Code of Practice (Department for Education & Department of Health, (Dfe & DoH), 2015).

The SEND Code of Practice defines social, emotional and mental health difficulties as:

> "Children and young people may experience a wide range of social and emotional difficulties which manifest themselves in many ways. These may include becoming withdrawn or isolated, as well as displaying challenging, disruptive or disturbing behaviour. These behaviours may reflect underlying mental health difficulties such as anxiety or depression, self-harming, substance misuse, eating disorders or physical symptoms that are medically unexplained. Other children and young people may have disorders such as attention deficit disorder, attention deficit hyperactive disorder or attachment disorder."
>
> (DfE & DoH, 2015, 98).

SEMH is argued to be an umbrella term which incorporates a range of presentations in children (Dolton, Adams & O'Reilly, 2019). These presentations can be broadly separated into two main areas; 'internalising difficulties' (also known as emotional difficulties) such as anxiety, depression, emotional regulation difficulties, and

'externalising difficulties' (also known as behavioural difficulties) which can include aggression, hyperactivity, and confrontational behaviours (Sloan, Winter, Connolly, & Gildea, 2020). Similarly, Dolton et al. (2019) note children with SEMH needs can present differently with some showing passive, quiet and withdrawn behaviours, and others showing disruptive and challenging behaviours.

Terminology relating to SEMH has been widely debated (Carroll & Hurry, 2018). Prior to the SEMH definition in the SEND Code of Practice (Department for Education & Department of Health, (Dfe & DoH), 2015), the term 'behavioural, emotional and social difficulties' (BESD) was used within the 2001 Special Educational Needs (SEN) Code of Practice (Department for Education and Skills, 2001). Norwich and Eaton (2015) argue the change of terminology was a result of the government's position at the time that children with behavioural difficulties in themselves were no longer seen as SEN and it was viewed to be an attempt by the government to reduce the number of students identified with SEN. The change of term is also argued to be a reflection of the shift in focus to mental health needs and the understanding that such behaviours may be indicative of such difficulties (Cosma & Soni, 2019; Dolton, Adams, & Reilly, 2019; Jalali & Morgan, 2018).

Norwich and Eaton (2015) argue that the removal of 'behaviour' from the BESD definition does not mean that challenging behaviour is not considered with the new term of SEMH. While the current definition of SEMH appears to suggest that 'challenging behaviours' may be a result of different mental health difficulties, Caslin (2019) highlights that this is not reflected in other governmental documents such as the 'Behaviour and Discipline in Schools' (DfE, 2016) policy which emphasises the use of exclusion and punishment of behaviour, rather than the understanding and support for behaviour. The emphasis on behaviour may therefore reflect why within the literature there is some evidence that the term 'Social, Emotional and Behavioural Difficulties' (SEBD) continues to be used in research publications (e.g. Caslin, 2019; Hibbin and Warim, 2019) despite the definition of SEMH being in place since 2015.

The term SEMH has been criticised for similar difficulties to the BESD term including a lack of thresholds for identifying such difficulties, with the term being vague and open to interpretation (Norwich & Eaton, 2015). Not only does there appear to be a lack of clarity with regards to the term in the literature but there also appears to be a lack of agreement as to people's perceptions of SEMH difficulties. For example, a study completed by Soles et al. (2008) investigated teacher's perceptions of SEBD needs found there was little agreement betw0een teacher's and the children's perceptions of such needs.

A further complicating factor with regards to the definitions of SEMH is that different terms are used to describe similar difficulties. For example, in one paper the term 'socioemotional skills and behaviour' is used to describe internalising and externalising problems, self-control with peers and interpersonal skills (Duncan et al., 2007). In another paper, Gutman and Vorhaus (2012) use the term 'wellbeing' which they include in its definition behavioural (e.g. attention problems), emotional (e.g. anxiety), troublesome behaviour (e.g. stealing), awkwardness (e.g. easily annoyed), and social behaviour (e.g. victimisation), and school (e.g. enjoyment) dimensions. While a number of these dimensions could be argued to fit within the SEMH umbrella term, it could be argued that some dimensions such as 'school' are less applicable.

As earlier noted, there has also been increased focus and use of the term 'mental health'. For example the 'Mental Health and Behaviour in Schools' policy (Department for Education, 2018) promotes schools as having a central role in supporting children's mental health. Within this document mental health disorders appear to also be another umbrella term which includes emotional disorders (e.g. phobias, anxiety), conduct disorders, hyperkinetic disorders, developmental disorders, attachment disorders, trauma disorders and other mental health problems such as eating disorders, habit disorders, somatic disorders; and psychotic disorders are included (Department for Education, 2018). These difficulties could be argued to fit within the SEMH definition as described in the SEND Code of Practice (DfE & DoH, 2015). The lack of agreed terms presents a challenge when gathering information with regards to the prevalence of SEMH and the importance of the SEMH needs.

Given that SEMH is an umbrella term, the researcher has included papers and articles that may not use the term SEMH but in which the difficulties described in the articles would fit within the SEND Code of Practice's (DfE & DoH, 2015) definition.

2.2.1 Prevalence of SEMH

In 2017, a survey was completed examining the mental health and wellbeing of young people aged two to 19 years living in England (Sadler, Vizard, Ford, Marcheselli, et al., 2018). Within the survey the researchers included in their definition of 'mental health disorder' four categories; emotional (e.g. Separation Anxiety Disorder), behavioural (e.g. Oppositional Defiant Disorder), hyperactivity (e.g. Hyperkinetic Disorder) and other less common disorders (e.g. Autism Spectrum Disorder).

Findings from the survey indicate one in 10 (9.5%) of primary-aged children had at least one disorder and approximately one in 30 (3.4%) met the criteria for two or more mental disorders (Sadler, Vizard, Ford, Marcheselli, et al., 2018). Of these, behavioural disorders (5%) and emotional disorders (4.1%) were most common. Boys were twice as likely to be identified as having a hyperactivity disorder than girls.

For children aged two to four years, one in 18 (5.5%) children had an identified mental disorder, with a higher prevalence in boys (6.8%) than in girls (4.2%) (Vizard et al., 2018). Less common disorders and behavioural disorders were the most frequent at this age. While providing some insight into the prevalence of SEMH needs, it is of note that there have been objections raised to the classification of young people in this way which are summarised by Egger and Angold (2006). These include both practical objections (such as the validity of such classifications given children's rapid development) as well as ethical objections (implications of labels being too 'within child') (Egger & Angold, 2006). However, overall the data suggests that SEMH is a concern that has an impact on many children.

2.2.2 Importance of SEMH

It is acknowledged there are mixed findings regarding the relationship between SEMH and later academic achievement (Duncan et al., 2007). A meta-analysis of six longitudinal data sets found that social-emotional behaviours were generally

insignificant predictors of later achievement, with the strongest predictors being reading, school-entry mathematics and attention skills (Duncan et al., 2007). However, the authors acknowledge two caveats to this data; externalising behaviour difficulties could have an impact on other children's attainment rather than the individual child's, and academic achievement is not the only outcome that could be considered to be important when examining impact (Duncan et al., 2007).

A later longitudinal study by exploring emotional, behavioural, social and school wellbeing on academic achievement and school engagement presented different findings to Duncan et al. (2007). Findings showed significant correlations between emotional, behavioural, social and school wellbeing at ages seven, 10 and 13 with later academic achievement at ages 11, 14 and 16 (Gutman & Vorhaus, 2012). Significant correlations between emotional, behavioural, social and school wellbeing at ages seven and 10 and engagement at 10 and 13 were also found (Gutman & Vorhaus, 2012). The authors concluded that early interventions for children who show behavioural difficulties may help prevent later low achievement and disengagement.

There is also evidence linking young people's experiences and diagnoses of mental health difficulties to exclusions. A governmental survey found children with persistent mental disorders were 19 times more likely to be excluded, and those with a persistent conduct disorder 47 times more likely, in comparison to children with no disorders (Parry-Langdon, 2008). Furthermore, young people with a conduct disorder or emotional disorder had increased odds of having no qualifications when leaving school (Parry-Langdon, 2008).

Overall the described findings indicate the relationship between educational attainment and mental health difficulties is complex and bi-directional (Hickey, Picciotto, Patel, & Hunt, 2019). However, given the prevalence and possible impact of SEMH needs, it is suggested that more needs to be done to support children's social, emotional and behavioural wellbeing to help increase educational attainment and reduce behavioural problems and mental health difficulties (Children & Young

People's Mental Health Coalition, 2012; National Institute for Health and Clinical Excellence, 2018).

2.2.3 SEMH in the early years

Emphasis on supporting the social and emotional development of children within the early years and through early intervention is reflected in a number of government reports (Department for Education, 2017; Department of Health & NHS England, 2015; Office for Standards in Education Children's Services and Skills (Ofsted), 2015). Neuroscientific data has been used to support arguments that the early years (often cited as being between nought to three) is an important time, and experiences during this time can impact brain structures and later development (Gerhardt, 2004; Satchwell-Hirst, 2017; White, 2019). However, others have urged caution in making too simplistic and deterministic connections and applying immature understandings of neuroscience to policy (Edwards, Gillies, & Horsley, 2015, 2016).

2.2.3.1 Attachment Theory

One paradigm referred to when emphasising the importance of the early years on later development is attachment theory (Gerhardt, 2004). Attachment theory has undergone numerous changes over the years but is attributed to the work of Bowlby (Slater, 2007), although there are concerns that current understanding of attachment is based on Bowlby's earlier work which he later adapted and expanded upon (Smith, Cameron, & Reimer, 2017). In one of Bowlby's later works (Bowlby, 1988) the findings of Ainsworth (e.g. Ainsworth, 1979) and Main (e.g. Main & Cassidy, 1988) are brought together and are summarised below:

- A basic component of human nature is to make intimate emotional bonds which are controlled by a cybernetic system [2]within the central nervous system.

[2] Bowlby (1988) described a set of pre-programmed behaviour patterns between a mother and child which develop during the early months of life and by the end of the first years are organised cybernetically, meaning that the behaviours are in a system which are activated or ceased depending on conditions. For example, if a child experiences pain then their attachment behaviour is likely to be activated and the conditions that cease that behaviour could include the sight or touch of their mother (dependent on the level of arousal).

- A child's relationship with their early caregivers has a powerful influence on their later development.
- The child's early interactions with their caregivers will have an influence on the development of internal working models (IWM) of themselves and others which become habitual, unconscious and generalised.
- Patterns of attachment once developed will tend to persist and the child can impose these on to new relationships such as with a teacher.
- There are different patterns of attachment including secure, anxious-resistant, anxious-avoidant and disorganised (based on the work of Ainsworth (e.g. Ainsworth, 1979) and Main (e.g. Main & Cassidy, 1988)).
- There are different pathways of development that a child can encounter, and which will be influenced by their environment and interaction with their parents. Those who have experienced parents as caring, sensitive and responsive are likely to develop along a healthier pathway than those who have not experienced this. However, this is not fixed, and the directions of pathways can change to more favourable or unfavourable directions (Bowlby, 1988).

Within the literature, there is support from longitudinal studies and meta-analyses that secure and insecure attachments are related to different social, emotional, behavioural and cognitive outcomes (Colonnesi et al., 2011; Ranson & Urichuk, 2008). More detailed reviews within literature (such as Bergin & Bergin, 2009; Kennedy & Kennedy, 2004; Ranson & Urichuk, 2008) highlighted studies that have shown correlations between attachment classification and social functioning (Groh et al., 2014; Urban, Carlson, Egeland, & Sroufe, 1991) academic achievement and attention-participation (Jacobsen & Hofmann, 1997) and mental health issues such as anxiety and depression (Colonnesi et al., 2011; Madigan, Atkinson, Laurin, & Benoit, 2013) although effect sizes were variable and sometimes only small (e.g. Madigan et al., 2013).

Ranson and Urichuk (2008) note there are several limitations with regards to parent-child attachment and outcomes studies including differences in definitions of attachment and assessment tools, and difficulties in controlling external and

confounding variables, leading to varied results. There are also concerns with regards to the potentially deterministic features of attachment theory and an unease that something that has happened when we were younger could have implications for later personality and behaviour (Slater, 2007). Furthermore, just under half of the population is reported to not be securely attached but this has not proved a problem for everyone affected (Smith et al., 2017). Sroufe (2005) summarises these complexities and suggests that attachment provides an "organizing core in development" (p.365) which initiates pathways of development, however, outcomes found regarding variations in attachment are only probabilistic and not due to causation, and instead sit within complex developmental systems and processes.

2.2.4 Importance of Educational Settings in Supporting SEMH

While it is acknowledged that education environments have the potential to be a risk factor for mental health difficulties, such as through school-based problems like exam stress, they can also be an important protective factor against psychological problems (Hickey et al., 2019).

Education settings therefore have a role in supporting children and young people to be mentally healthy and resilient (Department for Education, 2016b, 2016a; Public Health England, 2015) and in supporting their social, emotional and mental needs (Cefai & Cooper, 2009; Roffey, Williams, Greig, & MacKay, 2016). This emphasis has been recently reflected in the proposal set out in the Government's Green Paper on 'Transforming Children and Young People's Mental Health Provision' (Department of Health & Department for Education, 2017) which states

> "we want to put schools and colleges at the heart of our efforts to intervene early and prevent problems escalating. There is clear evidence that schools and colleges can, and do, play a vital role in identifying mental health needs at an early stage, referring young people to specialist support and working jointly with others to support young people experiencing problems" (p. 3 and 4).

The Green Paper sets out recommendations which include having a Designated Senior Lead for Mental Health in every school and college, as well as having Mental Health Support Teams linked with groups of schools and colleges (Department of Health & Department for Education, 2017).

Arguments for the importance of education settings in supporting SEMH needs include issues relating to pragmatics, resiliency, relationships and attachment.

2.2.4.1 Pragmatics

Educational settings are important in supporting children's social and emotional wellbeing because children spend a significant amount of time within schools (Mental Health Foundation, 2016; Perryman & Doran, 2010). Schools enable support to be provided for children identified as being vulnerable, who may have little social/educational support elsewhere (Department for Education, 2016b; Department of Health, 2013). This includes children who may not access support due to issues such as physical access, limited opening times, stigma and limited resources within the community (Hickey et al., 2019). This is particularly important given rates of mental disorder in children are reported to be higher in low-income households and in households with less healthy family functioning (Sadler, Vizard, Ford, Goodman, et al., 2018).

2.2.4.2 Resiliency

Education settings can help promote resiliency which may act as protective factors for future mental health difficulties (Children & Young People's Mental Health Coalition, 2012; Department for Education, 2016b). Resilience is defined "as the capacity of a system to adapt successfully to significant challenges that threaten its function, viability, or development" (p.12, Masten, 2018). Resilience is not an individual trait but an ongoing and dynamic interactive process between the individual and their environment (Faulconbridge, Hunt, Laffan, Fatimilehin, & Law, 2019; Hickey et al., 2019; Treisman, 2017). Examples of how resilience can be fostered within schools include through supporting relationships, having high expectations of the children, giving students a sense of belonging, teaching of social and emotional skills, and working collaboratively with families (Roffey, 2016).

Increase in resilience is argued to help children manage the inherent challenges of learning tasks presented to them (Solomon, 2017).

2.2.4.3 Relationships

Education settings give children a sense of connectedness (Department for Education, 2016b) and help to support children's emotional wellbeing by providing opportunities for children to build secure relationships with adults (Ubha & Cahill, 2014). Relationships are described as an "anchor which children learn, flourish, and make behavioural changes and therefore a relational approach is integral" (p.152, Treisman, 2017). For children described as vulnerable, relationships help children to adapt and recover from past experiences, making the child feel secure, and in turn ready to learn (Bomber & Hughes, 2013). Relationships with peers can help young people feel connected and provide social support for mental health and wellbeing (Mental Health Foundation, 2016).

2.2.4.4 Teacher-Child Relationships

In particular, positive teacher-child relationships are important to children's social, emotional and behavioural development (Bergin & Bergin, 2009; Connor, Dearing, & Collins, 2011), and can act as important protective factors for young people with emotional and behavioural difficulties (Sheffield & Morgan, 2017). Teacher-child relationships that are emotionally supportive rather than only focusing on instructional support are suggested to be more beneficial (Mcnally & Slutsky, 2018). One study found higher child-reported relationship quality with teachers related to lower child-reported depressive symptoms, and higher teacher-reported conflict predicted higher teacher-reported aggression and child-reported aggression (Rucinski, Brown, & Downer, 2018). Another study found high-quality child-teacher relationships from kindergarten through to sixth grade were associated with more positive social skills trajectories for the children (Berry & Connor, 2010) .

It is speculated that positive teacher-child relationships may help the child to feel more emotionally secure and self-confident, leading to a more positive attitude to learning which improves their academic performance (Rucinski et al., 2018). A meta-analysis examining the impact of student-teacher relationships found positive

associations for positive aspects of student-teacher relationships and engagement and achievement in education, and negative associations for negative student-teacher relationships and engagement and achievement in education (Roorda, Koomen, Spilt, & Oort, 2011). However, the studies cited are looking at correlation and not causation, and the relationship between student-teacher relationships is probably bi-directional with there being a complex interplay between teacher-child relationship quality and children's behaviours (Bergin & Bergin, 2009; Portilla, Ballard, Adler, Boyce, & Obradović, 2014). For example, one study concluded there were reciprocal relationships between student-teacher relationship and behaviour arguing that children's aggressive behaviour at the beginning of a school year led to increased levels in teacher-child conflict mid-year, which in turn led to an increase in aggressive behaviour at the end of the school year (Doumen et al., 2008). Furthermore, often the studies cited used measures such as the Student-Teacher Relationship Scale (STRS; Pianta, 2001) which only examines the relationship from the teacher's perspective (Doumen, Koomen, Buyse, Wouters, & Verschueren, 2012).

2.2.4.5 Attachment

From an attachment perspective, education settings are argued to be important to children's social and emotional wellbeing. They provide opportunities for students to build attachment with teachers which is described as leading to positive academic and social-emotional outcomes (Bergin & Bergin, 2009). Understanding of attachment theory has been used to conceptualise the quality of teacher-child relationships (Verschueren & Koomen, 2012). For example, the Student-Teacher Relationship Scale (STRS; Pianta, 2001) assesses the quality of student-teacher relationships through three relationship dimensions which are parallel to child-parent relationships (Kennedy & Kennedy, 2004; Verschueren & Koomen, 2012). Teachers have opportunities to disconfirm insecure children's IWM that see themselves as unlovable and others are dangerous to more positive IWM (Bergin & Bergin, 2009; Ubha & Cahill, 2014). However, not all social relationships are attachments (Ainsworth, 1979) and not all teacher-student relationships are attachment relationships (Bergin & Bergin, 2009; Verschueren & Koomen, 2012).

The importance of attachment within schools has led to the development of resources to help teacher's understand children's behaviour and implement strategies to provide support (e.g. Bombèr, 2011; Geddes, 2006; Golding et al., 2013). There have also been some studies detailing the use of attachment interventions or approaches within schools including a secure friendship intervention group (Ubha & Cahill, 2014) and a whole school approach (Parker, Rose, & Gilbert, 2016; Webber, 2017). However, the current limited evidence-base means attachment-based approaches in schools appears to be more theoretically-informed rather than evidence-based (Parker et al., 2016)

2.2.5 Interventions and Support within Education Settings

Government guidance suggests there should be whole-school approaches to supporting children's social, emotional and mental health wellbeing (Public Health England, 2015) as well a therapeutic interventions, particularly for children with more complex needs (Department for Education, 2016b). National Institute for Health and Clinical Excellence (NICE), (2018) advises that primary education providers should "provide a range of interventions that have been proven to be effective, according to the child's needs" (p.5).

Children & Young People's Mental Health Coalition (2012) report that school-based interventions supporting the emotional and mental wellbeing of children is a cost-effective approach which can; help improve student's academic attainment and enable them to reach their full potential; help schools reach Ofsted's targets, and help the school to be a healthier and safe environment.

Hickey et al., (2019) describes educational settings playing a role in supporting children's mental and emotional needs on three different levels:

1. Universal: such as whole school approaches (see Corcoran, Cheung, Kim, & Xie, (2018) and Dray et al., (2017) for systematic literature reviews examining the impact of such approaches).

2. Selective: interventions that are targeted at those identified as being at greater risk of developing mental health difficulties (e.g. interventions targeted at children in care (Liabo, Gray, & Mulcahy, 2013))
3. Indicated: interventions and support targeted at children with emerging difficulties (e.g. Cognitive Behavioural Therapy for reducing symptoms of anxiety and depression (Mychailyszyn, Brodman, Read, & Kendall, 2012)).

Early Years settings also have a role in supporting children's social and emotional wellbeing (NICE, 2018). This can be done through staff having a good understanding of children's needs (including social and emotional development) and ensuring positive relationships are developed with the children (NICE, 2018). There are different interventions and support for preschool children in education settings including interventions targeted at teacher's management of behaviour, lessons targeted at children learning about emotions and playing with peers appropriately, or curriculum approaches (Morris et al., 2014)

2.3 Play-based Interventions within Education Settings

The significance of SEMH and the importance of education settings in supporting these needs has been outlined above. One intervention approach in schools that is argued to be effective in supporting children with social, emotional, behavioural and mental health difficulties is play-based interventions and therapies (Trice-Black, Bailey, & Kiper Riechel, 2013).

2.3.1 Theoretical Rationale for Play-based Interventions

Arguments for play-based interventions include the benefits of play itself. Play helps children to develop social skills (by developing an understanding of different perspective and moral understandings of cooperation) (Golinkoff, Hirsh-Pasek, & Singer, 2006; Schaefer & Drewes, 2010). Play gives children experience of positive feelings, providing opportunities for laughter which is argued to release oxytocin and reduce cortisol levels, giving children a greater sense of wellbeing (Bomber & Hughes, 2013; Schaefer & Drewes, 2010). Play also helps support learning and cognitive development by providing opportunities for direct and indirect teaching, as well as

opportunities for children to discover and learn without the fear of consequences which can be found in academic learning (Schaefer & Drewes, 2010).

However, it is of note that descriptions of play are varied and can include definitions that focus on elements such as being adult-directed or child-directed, and free or structured (Atkinson, Bond, Goodhall, & Woods, 2017) leading to confusion as to what play is and making it difficult to make concrete conclusions with regards to its impact.

In relation to therapeutic benefits of play, play therapy can provide children with opportunities to play out worries they may have (Schaefer & Drewes, 2010; Trice-Black et al. 2013). This may be done through different therapeutic processes as described by Schaefer and Drewes (2010) which include; abreaction (enactment of stressful and traumatic experiences), catharsis, stress inoculation (role playing upcoming stressful events such as starting school), sublimation (substituting unacceptable feelings with play activities) and helping the child to have a sense of self, control and power.

Play is also described as a 'universal language' which allows children to communicate without the need for expressive language or abstract thought (Schaefer & Drewes, 2010; Trice-Black et al., 2013) in contrast to other school-based interventions which may require children to talk (Bratton, 2010). It is argued more should be done to support play due to limited opportunities children may have to play at home and a focus within education on academic achievement and scores (Golinkoff et al., 2006).

Play-based interventions have been described as being used for a wide range of difficulties including internalising and externalising difficulties (Gaskill & Perry, 2014) Within schools, play-based interventions have been used to support children identified as having behavioural difficulties (e.g. Cochran & Cochran, 2017; Ritzi, Ray, & Schumann, 2017), to support children and teachers relationships (e.g. Ray, Henson, Schottelkorb, Brown, & Muro, 2008; Ray, 2007), and to support children with low self-esteem (e.g. Shen & Armstrong, 2008).

2.3.2 Overview of Different Play-Based Interventions

There are a range of play-based interventions and therapies that are used in schools (Perryman & Doran, 2010). These can be broadly divided into non-directive and directive approaches (Australian Institute of Professional Counsellors (AIPC), 2010; Trice-Black et al., 2013). Directive approaches involve the practitioner guiding and interpreting the play process, in contrast to non-directive approaches in which the child will lead the direction of the play (AIPC, 2010). Bratton, Ray, Rhine, and Jones (2005) advise that although there are a range of theoretical approaches to play interventions, they all have in common the use of play to support children.

2.3.3 Evidence-base for Play-based Interventions within Schools

There are some general limitations to research examining play-based interventions within schools which includes small sample sizes, lack of control groups, and studies not always including details of procedures/interventions (Bratton, 2010).

Nevertheless, two meta-analyses of play-based interventions within schools have been identified. Ray, Armstrong, Balkin, and Jayne (2015) examined the impact of child-centred play therapy in schools looking at 23 studies. They found children who participated in the child-centred play therapy showed statistically significant improvements compared to children who received no treatment. However, the effect sizes found were relatively small (of 0.21 for internalising difficulties, 0.34 for externalising difficulties, 0.34 for total difficulties and 0.35 for academic difficulties). Furthermore, when comparisons were made between children who received the child-centred play therapy and children who received an alternative therapy, no significant differences were found.

Within Bratton, Ray, Rhine, and Jones's (2005) review, a wider range of play interventions were examined. Thirty-six studies were found that had taken place within a school setting and a moderate treatment effect size was reported of 0.69. Bratton et al., (2005) note that this treatment effect size was significantly smaller than some studies examining its use in other settings but suggested this may be due to the smaller number of sessions typically completed in schools. Bratton et al.'s (2005) findings showed that nondirective play therapy appeared more effective than

directive play therapy, although there was a larger amount of studies found for nondirective play therapy.

Despite there being possible benefits to play-based interventions, it is important to note some criticisms with regards to the approach. In particular, there is concern as to whether play therapy, which is often adult-directed and perhaps lacks spontaneity, is often done to the child rather than with, and whether it is actually 'play' at all (Goodley & Runswick-Cole, 2010). Consequently, some of the benefits of play which can come from free-play that is not adult-directed, may not be as prominent in play-based interventions and therapies.

2.4 Theraplay

Overall there is an argument for play-based interventions in schools with some evidence for the approach, although more research is needed. An example of a directive play therapy which has been argued to be effective within schools is Theraplay (Francis et al., 2017; Tucker et al., 2017).

2.4.1 What is Theraplay?

Theraplay is a play-based approach that was developed in the 1960s based on the work of Ann Jernberg when she was the director of Psychological Services for the Head Start program in Chicago (Booth & Jernberg, 2010). Booth & Jernberg (2010) describe the Theraplay Institute's mission statement as to "build strong families and emotionally healthy children and adults through Theraplay training, advocacy and research" (p.xxv). Booth & Jernberg (2010) argue there are core concepts to the Theraplay approach which are based on healthy parent-child relationships which leads to healthy social and emotional development. The seven core concepts of Theraplay are:

- "Interactive and relationship based
- A direct here-and-now experience
- Guided by the adult
- Responsive, attuned, empathic, and reflective
- Geared to the preverbal, social, right-brain level of development

- Multisensory - including the use of touch
- Playful" (p. xxvi, Booth & Jernbeg, 2010).

Theraplay has been traditionally used as an individual intervention to support parent/carers and their children (see section 2.4.2 for further detail), however the intervention has been expanded to be used in different settings including "schools, home, outpatient mental health clinics, hospitals, residential treatment centres, homeless shelters, and private practices" (Booth & Jernberg, 2010, p. 6). Theraplay is not a manualised program in which there are set activities for each session. The sessions are individualised to the child's needs and therefore content, length and number of sessions can vary (Booth & Jernberg, 2010).

Theraplay has been used in practice both as an individual intervention (such as its use with parent/carers and their children) and as a group intervention (such as with groups of children) (Booth & Jernberg, 2010). For example, within education settings, the application of Theraplay can range from specific programs such as 'Sunshine Circles' which is a teacher-led group intervention used with all of the children in the classroom (Tucker et al. 2017), to bespoke targeted one-to-one and small group sessions with a selected group of children and a key adult, as described in Francis et al. (2017). It has also been reported to have been used as a more universal approach and there is at least one school in the UK in which all staff members are reported to be trained in Theraplay to support them to use Theraplay techniques and principles in their interaction with children across the school day (personal communication with the UK Theraplay Lead). Further detail of its application in education settings is described in section 2.4.6).

There are different levels of Theraplay training, with Level One Theraplay being the initial training stage. There is also 'Group Theraplay' training which is a two-day course for people to use Theraplay techniques in group settings in which they do not need to do the Level One Theraplay. People trained in either Level One Theraplay or Group Theraplay are advised they can use the techniques but must call this 'Theraplay informed practice'. There is an accreditation program that people can enrol on, which

involves completing a set number of sessions and receiving supervision from a qualified Theraplay practitioner, however this is not mandatory.

2.4.2 Traditional Theraplay Model

The 'traditional model' of Theraplay focuses upon enhancing parent-child relationships through the use of adult-led play activities (Booth & Jernberg, 2010; Siu, 2009; Weir et al., 2013). Sessions usually begin with the Theraplay therapist and the child completing play activities together with the parent observing, and then gradually introducing the parent to the sessions so they can complete the play activities with the child under the therapist's guidance (Booth & Jernberg, 2010). Sessions are individualised to the child's needs and number of sessions can range from 18-24 with some children having involvement between six months to a year (Booth & Jernberg, 2010).

Play activities used within the sessions are argued to be based on the characteristics of healthy parent-child relationships (Siu, 2009). Within the literature, four Theraplay dimensions of these play activities are described (Booth & Jernberg, 2010; Francis et al., 2017; Simeone-Russell, 2011; Siu, 2009; Vaughan, McCullough, & Burnell, 2016; Weir et al., 2013) and are summarised below in Table 2-1, with Figure 2-1 demonstrating a visual representation of the approach:

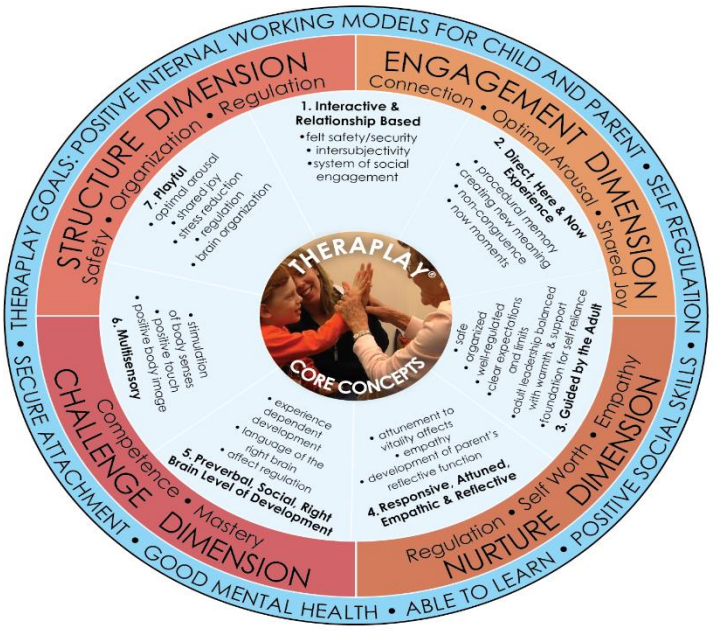


Figure 2-1 Visual Representation of the Theraplay® Approach - Theraplay® Wheel (Booth & Jernberg, 2010)

Theraplay Dimension	Purpose of Activity	Example Activity
Structure	Help the child to follow the adult's lead, support them to regulate their emotions Help the child to learn that they are safe because the parent is in charge	Child mirroring the adult's actions. Structure is provided in the session by safety rules, activities having a beginning, middle and end, and activities that define body boundaries.
Engagement	Encourage the child to have fun and make connections with the parent using playful interactions Help the child to be playful and enjoy new experiences	Child and parent creating a special handshake
Challenge	Help the child to be brave enough to have a go and take age appropriate and safe risks building their sense of mastery and competence	Balloon tennis with the passes becoming gradually more difficult by using different body parts
Nurture	Help the child to learn that they are worthy of care Provide calming and soothing experiences for the child	Tending to the child's 'hurts' with lotion.
Sources used to inform table: Booth & Jernberg, 2010; Francis et al., 2017; Simeone-Russell, 2011; Siu, 2009; Vaughan, McCullough, & Burnell, 2016; Weir et al., 2013		

Table 2-1 Summary of Theraplay Dimensions

2.4.3 Theoretical Underpinning of Theraplay

2.4.3.1 Attachment

Attachment is described as a theoretical underpinning of Theraplay (Booth & Lindamen, 2010; Norris & Rodwell, 2017). Theraplay Practitioners are reported to use attachment theory to understand the adult and child's current IWM, and use strategies to help develop more effective and positive IWMs (Booth & Lindamen, 2010; Lender, 2006; Myrow, 2000). This is done through playful and nonverbal strategies which is aimed to reprogram earlier experiences (Myrow, 2000) and develop attunement between the adult and the child (Booth & Lindamen, 2010). These strategies include the four dimensions of Theraplay described earlier (Myrow, 2000). For example, structure activities are proposed to meet the attachment need of security, and nurturing activities are argued to support attachment by providing the child with care and attention (Myrow, 2000).

In parent-child Theraplay, Theraplay Practitioners use the Marschak Interaction Method (MIM) which is a structured observation technique designed to assess the quality of the parent-child attachment (O'Connor, Ammen, Hitchcock, & Backman, 2004). Advocates of Theraplay propose that the findings from the MIM are used to understand where the attachment process was disrupted and emotional growth had stopped (Booth & Jernberg, 2010). Practitioners then implement an intervention plan which goes back to this developmental stage (Munns, 2009).

2.4.3.2 Neurobiology

Advocates of Theraplay report understanding of brain structure and development is used to inform their Theraplay practice (Booth, 2015; Booth & Lindamen, 2010; Norris & Rodwell, 2017). A review of the literature found three main arguments.

Firstly, Theraplay techniques and activities (such as non-verbal face-to-face communications that involve rhythm) target the right-brain structures which are reported to process social emotional input and control sensorimotor perception and help regulate the child (Lender, 2006; Munns, 2000). The right side of the brain is important because it undergoes significant development in the early years and

attachment experiences are argued to shape the early organisation of the right brain (Schore & Schore, 2008).

Secondly, it is suggested that Theraplay activities tap into the lower regions of the brain, referred to as the reptilian part, which manages everyday functions such as breathing, and the middle part of the brain which is argued to manage emotions and relationships, referred to as the mammalian part. Consequently, Theraplay is reported to help the child become more organised and regulated (Norris & Rodwell, 2017). Munns (2009) suggest that this is similar to the Neurosequential Model of Therapeutics (Gaskill & Perry, 2014) in which a child's brain mediated-strengths and areas of vulnerabilities are assessed, and then targeted within Therapy, ensuring that the activities are targeted at the child's developmental needs (Gaskill & Perry, 2014). Munns (2009) suggests that similarly Theraplay targets the emotional level of the child (such as at the infant or toddler level).

Thirdly, Polyvagal Theory (Porges, 2017) is argued to help understand the mechanisms of why the intervention can help children (Lindamen, 2016). Polyvagal Theory provides "a neurobiological narrative that focuses on the importance of 'safety' and the adaptive consequences of detecting risk on physiological state, social behaviour, psychological experience and health" (Porges, 2017, p. 45). Lindamen (2016) suggests that the Theraplay practitioner uses their open body language (such as the use of expressive face and melodic voice) to activate the child's 'Social Engagement System' which creates a neuroception (unconscious process of evaluating risk) of safety. This is then reported to helps promote empathy, regulate the child and allow opportunities for further social connections (Booth & Lindamen, 2010; Tucker et al., 2017).

The appeal for explanations which attempt to embed neuroscientific findings is understandable given research has shown that people can judge explanations as being more satisfying when there is neuroscientific information included, even when not relevant to the explanation (Weisberg, Keil, Goodstein, Rawson, & Gray, 2008). However, there are concerns regarding the over-simplification of the application of neuroscience findings, which are not fully understood, to education and therapeutic

practice. This work has often been applied at a populist level rather than an academic one, and neuroscience has been used to rationalise pre-conceived policies (Hirsh-Pasek et al., 2007; Smith et al., 2017). Arguments also include the distinction of functions being divided between right-brain and left-brain hemisphere is too simplistic and considered a neuromyth (Lindell & Kidd, 2011) and that the brain being divided into three sections, often referred to as the triune brain, does not reflect the complexity of the brain's circuitry (Derrington & Goddard, 2007).

2.4.3.3 Touch

Theraplay advocates argue the intervention is reliant and successful because of the use of touch within the sessions (Munns, 2009; Myrow, 2000; Norris & Rodwell, 2017). Within Theraplay, the use of touch can be completed through games and activities and is suggested to help adults quickly build trust with children (Myrow, 2000)

Arguments for the use of touch in Theraplay have often cited the work of Field (2001) and include studies that have examined the impact of touch deprivation and animal studies. However, Field (2010) acknowledges that there are significant unknowns about touch, including what laboratory and animal study findings may mean in the 'real world' or what studies of extreme deprivation tell us with regards to touch in less deprived situations. Furthermore, there are also ethical issues with regards to the use of touch within therapeutic sessions including the consideration of who needs are being met from the touch, the potential imbalances of power between child and practitioner, and issues of consent (McNeil-Haber, 2004).

2.4.3.4 Play

Booth and Jernberg (2010) suggest that play remains the foundation of the Theraplay approach. Within Theraplay, activities are targeted to earlier stages of relationship play as a way of "building up the foundations again" (Norris & Rodwell, 2017, p. 32).

As previously noted, while there is some research to support play leading to positive outcomes for children, play in interventions and free play could differ (Goodley &

Runswick-Cole, 2010). Consequently, some caution is needed in making generalisations of benefits of free play to benefits of play-therapy.

2.4.4 Uses and Applications of Theraplay

Booth (2015) suggests that Theraplay is an approach that is typically used with children and young people aged two to 18 years but note that the approach can be used with older people such as within retirement communities.

Theraplay is also argued to help families that may experience risk factors such as poverty, and adoptive/foster families (e.g. Cort & Rowley, 2015; Weir et al., 2013). It is an approach that has been applied to supporting children with internalising behavioural difficulties (Siu, 2009; Wettig, Coleman, & Geider, 2011), externalising behavioural difficulties (Mohamed & Mkabile, 2015) and for children who have Autism Spectrum Disorders (Howard, Copeland, Lindaman, & Cross, 2018). However, published research is limited (Simeone-Russell, 2011) with the majority of cited 'evidence' being descriptions of cases within books (e.g. Lindamen & Booth, 2010) or Theraplay Newsletters (e.g. Rieff & Booth 1994 cited in Simeone-Russell, 2011).

2.4.5 Critique of Theraplay

Critiques of Theraplay include a lack of peer-reviewed publications which use objective measures of outcomes and report statistically sound findings (Wardrop & Meyer, 2009). Theraplay is also argued to be an intervention which misapplies attachment theory (Allen, 2011). Allen's (2011) critique centres on the lack of studies to support Theraplay's effectiveness, as noted above, but also raises ethical concerns with regards to some of the activities practitioners use, such as eye contact, applying lotion/powder, and tickling. Allen (2011) suggests that trying to replicate earlier caregiving experiences, which would have been used with younger children, is not in line with attachment theory and argues that instead attachment interventions should only focus on the current context and developmental age of the child and should not try and remediate experiences from a previous developmental period.

2.4.6 Theraplay within Educational Settings

In addition to being used in parent-child dyads, Theraplay has also been applied within education settings. Martin (2001) suggests Theraplay applied within the classroom has numerous benefits including helping teachers to think differently about children's behaviour and helping children to experience positive role models. Proponents suggest children often come to school with significant needs and the use of play helps to address those needs by offering opportunities for both adults and children to experience joy, build relationships with each other and to support children to feel accepted (Martin, 2001; Schieffer, 2011). It is argued to be a structure that can enable "teachers to address children's very deep and basic emotional needs in an atmosphere of nurturing playfulness" (Martin, 2000, p. 337). The purpose of the sessions are to create a secure environment bringing together children and teachers, creating a caring community, and is argued to be both a preventative and therapeutic approach (Martin, 2000). Martin (2001) proposes that the emotional needs of children need to be satisfied before learning can take place, and Theraplay in the classroom offers this.

2.5 Critical Review of the Evidence-base for Theraplay in Education Settings

To get a better understanding of the evidence-base for Theraplay being used in education settings, a systematic literature review was completed, investigating the following question:

'What impact does Theraplay have on children and young people in education settings?'

2.5.1 Systematic Literature Review

Systematic literature reviews provide an understanding of the current research evidence and help inform decisions that will have an impact on people (Gough, Oliver, & Thomas, 2012). They allow an explicit review of the research literature to be made (Gough, Oliver and Thomas, 2012) which can arguably be comprehensive and less biased than a general or narrative literature review (Andrews, 2005).

2.5.2 Search Strategy

Searches for relevant papers to answer the research question took place on 23rd June 2018 and a final search was completed on the 1st August 2019. Relevant papers to answer the research question were found using the following search terms; "Theraplay" OR "Group Theraplay" OR "Sunshine Circles". The following databases were used; Ebsco – ERIC; ProQuest; Sciencedirect; Ovid; Springer; Sage.

2.5.3 Primary Inclusion Criteria

For the initial screening of papers, titles and abstracts were read and papers were included that referenced Theraplay, were journal peer-reviews articles, dated from 1990-2019 and were written in English.

Search results produced 1,099 papers. After initial screening, 246 papers were identified. From these papers, a second cycle of screening of papers was undertaken using the below inclusion/exclusion criteria.

2.5.4 Secondary Inclusion/Exclusion Criteria

The articles were reviewed based on the Inclusion/Exclusion criteria described in Table 2-2. After the secondary inclusion and exclusion criteria was applied, 237 papers (including duplicates) were identified that did not meet the inclusion criteria. Details of the selection process of papers is described within Appendix A (section 7.1). References of papers rejected are presented within Appendix B (section 7.2). Nine papers were identified that met the inclusion criteria and four of these were duplicates resulting in five papers being identified. A description of each study is presented in Appendix C (section 7.3).

Inclusion	Exclusion	Rationale
Theraplay one-to-one or group sessions	Any intervention that was not Theraplay e.g. group play therapy	Range of interventions to review is purposely broad to capture the different ways Theraplay may be used within education.
Theraplay being implemented by teachers, facilitators, people trained in Theraplay.	Theraplay that focuses on parent-child dyads.	Review does not include parent-child dyads as this does not reflect the overall research purposes.
Theraplay intervention implemented within an education setting.	Theraplay interventions that are only completed within the clinic or home settings.	Focus of the current research is how Theraplay is used within education settings, the focus is wide to identify possible interventions in both mainstream and specialist settings.
Intervention being used in any country		Research from United Kingdom only produced two papers.
Range of methodologies used to include qualitative and quantitative data.	Interviews, reviews with no data presented, anecdotal reporting.	Broad range of methodologies to identify as many interventions as possible
Intervention used with three-years-old to eighteen-years-old.	Intervention used with adults only	The age range is wide due to the limited number of papers.

Table 2-2 Descriptions of secondary inclusion and exclusion criteria

2.5.5 Quality and Relevance of Included Studies

The quality of the five studies were appraised individually by looking at issues of validity/reliability using Gough's (2007) Weight of Evidence (WoE). A description of the four categories is presented below in Table 2-3 based on Gough's (2007) and Harden and Gough's (2012) description of the strands.

Decisions regarding criteria were informed by; Gersten, Puchs, Compton, Greenwood, & Innocenti (2005); Spencer, Ritchie, Lewis, and Dillon, (2003); Teddlie and Tashakkori (2009); Mertens (2015) and Robson and McCartan (2016). Criteria included both qualitative and quantitative aspects to ensure the range of studies were addressed, and percentages were calculated. Studies were rated on these categories as high, medium or low. WoE criteria developed for this review is detailed in Appendix D.

Weight of Evidence Strand	Description
WoE A	A generic assessment regarding the quality of the research
WoE B	A review of how appropriate the design and analysis is for answering the review question
WoE C	A review of how relevant the study is to the focus of the review topic
WoE D	An overall assessment of the study in relation to the findings of strands A, B and C
Sources used to inform data: Gough's (2007) and Harden and Gough's (2012)	

Table 2-3 Description of Weight of Evidence (WoE) Strands

2.5.6 Analysis of Studies

Five studies were analysed using the WoE criteria developed as described in Appendix D. Key details of each study are presented in the table below and a more detailed description of the findings is presented within Appendix C. Detailed analysis of each study and ratings for each WoE strand are presented within Appendix E.

Source And Country	Purpose	Setting and Participants	Design	WoE findings
Francis, Bennion, & Humrich (2017). UK	To explore the impact of Theraplay group or individual interventions on the child's relationship with a key adult in school and if there are any changes in the child's engagement in education	• Twenty children in care • 5-11 years old, • 55 girls, • 60% white, 20% Black/African/Caribbean/ Black British/ 20% Asian.	Mixed methods pre and post single group design	A: Low B: High C: High D: Medium
Siu, (2014). Hong Kong.	To explore the effectiveness of a school-based Theraplay program in increasing social skills of children with developmental disabilities.	• 38 students (35 boys and 3 girls) from a special needs school. • Age range of 6-13 years, mean age of 10.34 years.	Randomised Control Trial	A: Medium B: High C: Medium D: High
Tucker, Schieffer, Wills, Hull, & Murphy (2017). United States of America	To examine the effect of Sunshine circles on behaviour and socialisation of children.	• 206 preschool children (age range 3 – 4 years).	Quasi experimental design – Pre and post non-equivalent group design.	A: Low B: Medium C: High D: Medium

Park & Lee (2014) South Korea.	The effects of group Theraplay programs on peer competence and problem behaviours of elementary childcare class children,	• Children in 1st to 3rd grades in elementary school (8-10years)	Quasi experimental design	A: Low B: Medium C: Low D: Low
Salisbury (2018) UK	The effects of attachment enhancing play based on Theraplay principles on adult-child relationships and social and emotional functioning.	• 5 children identified as having SEMH needs and attending school	Practical Action Research Mixed Methods pre and post design	A: Low B: Medium C: High D: Medium

Table 2-4 Key Details of Five Studies Identified

It is of note that for WoE A, four studies received a low rating (Francis et al., 2017; Park & Lee, 2014; Salisbury, 2018; Tucker et al., 2017) and one study received a medium rating (Siu, 2014).

Overall, a WoE D rating of high was given to one study (Siu, 2014). Three studies received a WoE D rating of medium (Francis et al., 2017; Salisbury, 2018; Tucker et al., 2017) and one low (Park & Lee, 2014).

A 'weighting' approach (Harden & Gough, 2012) is adopted in which all five studies are included in the synthesis of results regardless of their WoE ratings, however those identified as low will be given less weight and findings will be interpreted with caution.

2.5.7 Synthesis of Results.

To help answer the review question, the five studies identified were compared focusing on the following themes:

- Setting
- Sample
- Design
- Intervention
- Measures and Dependent Variables
- Key findings

2.5.7.1 Setting

Two studies (Francis et al., 2017; Salisbury, 2018) were completed within the UK. For the other studies, one was located in the USA (Tucker et al., 2017), one within Hong Kong (Siu, 2014) and one within South Korea (Park & Lee, 2014)

The education settings for the studies differed. One was in a preschool setting (Tucker et al., 2017) although it was unclear how many preschools were included. One was within a specialist school (Siu, 2014|, one (Francis et al 2017) included interventions within nine primary schools and a Pupil Referral Unit, and one (Park & Lee, 2014) was in an elementary school. Francis et al. (2017) also report that some interventions were completed within the home environment, although there are no details as to how many. There were no details as to what type of school Salisbury's (2018) research took place in, other than they were chosen at random from an outreach service caseload.

2.5.7.2 Sample

Four studies had a sample size of below forty children (Francis et al., 2017; Park & Lee, 2014; Salisbury, 2018; Siu, 2014) with the exception of Tucker et al. (2017) which had a sample size of 206.

Two studies (Francis et al., 2017; Park & Lee, 2014) had an approximate balance between males and females, in contrast with Siu et al. (2014) whose majority of participants were male. There was no information provided regarding gender of participants in Tucker et al.'s (2017) or Salisbury's (2018) study.

The majority of the studies (Francis et al., 2017; Park & Lee, 2014; Siu, 2014) included children within key stage two (ages seven to eleven years) with the exception of Tucker et al. (2017) whose sample were of children aged three-to-four years. No information was reported regarding ages for Salisbury's (2018) study.

In relation to the needs of the participants, one study (Francis et al. 2017) included children who were in care and had been identified by the Virtual School Team as requiring further support. Four of the children were in receipt of Statements/Education Health and Care Plans (EHCP), and nine children received Special Education Needs support. Siu (2014) also included children identified as having special education needs and noted the children had been identified as either having "mild grade" or "moderate grade of disabilities" (p.191). In addition, Siu (2014) developed a screening tool to identify participants with social difficulties. Nine of the 206 students within Tucker et al's (2017) study were identified as qualifying for special education services and all met guidelines for free of reduced lunch programs, with just over half identified as "English Language Learners". Apart from age and gender, there was no further description of participants within Park and Lee's (2014) research, other than they were selected due to attending an elementary childcare class. The children in Salisbury's (2018) were identified from an outreach service caseload but no further details were provided.

2.5.7.3 Design

All five studies included pre-and post-measures. Two studies (Francis et al., 2017; Salisbury, 2018) did not include a control group and was a single group design. One study (Siu 2014) adopted a Randomised Control Trial. Tucker et al (2017) also included a control and intervention group, however the participants were not randomly assigned and therefore was a pre-and post-non-equivalent group design. For Park and Lee's (2014) research there was no detail of how the participants were assigned to the control and intervention groups.

2.5.7.4 Intervention

Three studies used Group Theraplay (Park & Lee, 2014; Siu, 2014; Tucker et al., 2017), one used individual Theraplay (Salisbury, 2018) and one (Francis et al.2017) had a mixture of both group and individual Theraplay interventions. Francis et al. (2017) reported that children identified as having more complex needs received individual Theraplay interventions, although this complexity was not defined. Francis et al. (2017) also provided consultation sessions with the child's significant adult throughout the Theraplay intervention.

Details of the structure of the sessions were provided in four studies (Francis et al., 2017; Salisbury, 2018; Siu, 2014; Tucker et al., 2017). Structure of sessions was similar for three studies (Francis et al., 2017; Siu, 2014; Tucker et al., 2017) with all including a welcoming activity, Theraplay activities, snack and a closing activity. One included 10 minutes of Theraplay activities between a child and adult each day for two weeks (Salisbury, 2018). Three (Francis et al., 2017; Salisbury, 2018; Siu, 2014) discussed the Theraplay dimensions of structure, nurture, engagement and challenge. There was no information with regards to the sessions for Park and Lee's (2014) other than it was Group Theraplay.

There was a difference in the number of sessions provided, ranging from 12-18 sessions (Francis et al., 2017), at least 20 sessions (Siu, 2014) and 10 sessions (Salisbury, 2018). No details as to how many sessions were completed in Tucker et al. (2017) or Park and Lee's (2014) research.

Frequency of sessions were weekly in two studies (Siu 2014; Tucker et al. 2014) and daily in one (Salisbury, 2018). Duration was 30 minutes (Francis et al. 2017; Siu 2014; Tucker et al. 2014) and 10 minutes (Salisbury, 2018).

Three (Salisbury, 2018; Siu 2014; Tucker et al. 2014) had teachers lead the Theraplay sessions. Siu (2014) reported teachers had basic introductory training in Theraplay and Group Theraplay. Tucker et al. (2017) reported teachers as having training from

a certified trainer but no further details. No details were provided by Salisbury (2018). Francis et al. (2017) described interventions including a key adult (either Teaching Assistant, Behaviour Mentor or carer) and a psychologist, however no details as to whether they were trained in Theraplay. Theraplay supervision is described in Siu (2014) study, and in Tucker et al. (2014) it is reported that teachers had access to a trainer for the first year.

Only one study (Siu 2014) reported checking the fidelity of the intervention which was done by an independent coder. All five studies included researchers who were linked to Theraplay organisation.

2.5.7.5 Measures and Dependent Variables

Four studies employed mixed methods (Francis et al., 2017; Salisbury, 2018; Siu, 2014; Tucker et al., 2017) and one study used a quantitative approach (Park & Lee, 2014).

2.5.7.5.1 Children's Behaviour

With regards to quantitative measures, all studies included pre-and post-questionnaire measures that focused on children's behaviour. Two used the Strength and Difficulties Questionnaire (SDQ, Francis et al., 2017; Salisbury, 2018). Only one study (Park & Lee, 2014) reported reliability findings for their measures. Siu reported the Chinese version of the Social Responsiveness Scale had "sound psychometric properties" (p.191).

One study (Siu, 2014) included observational measures for children's behaviour. Observations of three Theraplay sessions were completed and focused on the child's responses to instructions/redirections and their initiations with peers. Interactions were coded by a research assistant who was blind to the purpose of the study.

Measures were completed by people blind to the program in only one study (Siu 2014), in the other studies, measures were either completed by the teachers (Francis

et al., 2017; Park & Lee, 2014; Tucker et al., 2017), the identified adult in school (Salisbury, 2018) or teachers and children (Park & Lee, 2014).

2.5.7.5.2 Student-Teacher Relationships and Teacher's Behaviour

One study (Salisbury, 2018) used pre-and post-questionnaire measures to examine the impact on the relationship between the child and adult in school, completed by the adult and separately by the child. No psychometric properties were reported.

Two studies included observational measures. Tucker et al. 2017 included an observational measure (Teaching Pyramid Observation Tool, TPOT) which is reported to observe teacher's communication, management and classroom environment which was completed by an observer blind to the program once. In Salisbury's (2018) study, a tally of relational behaviour and the number of positive observations were completed by a randomly chosen adult, although no further details are provided.

Qualitative Data

Four studies (Francis, et al., 2017; Salisbury, 2018; Siu, 2014; Tucker et al., 2017b) also included qualitative data which was used to supplement the quantitative data. One study (Siu 2014) used notes from teachers' reflections, and three (Francis et al. 2017; Salisbury, 2018; Tucker et al. 2017) included interview data from the people who had been involved in the implementation of the intervention. Two studies interviewed the children (Francis et al. 2017; Salisbury, 2018).

2.5.7.6 Key Findings

All five studies reported positive findings within regards to the Theraplay intervention however due to WoE ratings (see 2.5.6) findings need to be interpreted with caution.

2.5.7.6.1 Children's behaviour

With regards to children's behaviour, Park and Lee (2014) found there was a significant decrease in internalisation, externalisation and problem behaviour scores

post intervention, and no significant differences found for the control group. However, there is limited information regarding implementation of the intervention.

Tucker et al. (2017) reported there was a significant interaction between treatment group and pre- and post-test scores for the following Problem Behaviour Questionnaire subscales; anxious (medium effect size), hostile/aggressive (medium effect size) and hyperactive/distracted (medium effect size). There was also a significant interaction for the treatment group for pre-and post-tests scores across the problem-solving and fine motor scales of the Ages and Stages Questionnaire-Three (ASQ3) although the effect sizes were small. There were no significant findings for the ASQ-3 communication scores, gross-motor skills and personal-social scales.

Salisbury (2018) reported there were improvements in all Boxall categories apart from 'engages cognitively with peers' and 'craves attachment' and overall Teacher SDQ scores reduced on average by 29%, however, these were not significant and there was minimal improvement for Parent SDQ scores. Francis et al. (2017) also reported no significant findings for overall pre-and post-SDQ scores, apart from there being a significant increase for prosocial SDQ scores for girls after the intervention. In both studies, there was no control group, no effect sizes reported and a small sample size.

Francis et al (2017) reported their qualitative data found an increase in: engagement with education; positive behaviour; confidence and self-esteem. However, the interviews were completed by the facilitators of the intervention and there were no independent checks with regarding coding of the data.

2.5.7.6.1.1 Children's Social Skills

In relation to children's social skills, a MANOVA completed found no significant results between the two groups for children's social behaviour (Siu, 2014). A follow-up ANOVA found significant results for social communication and non-significant results for social awareness, social cognition and social motivation. Despite

significant findings only found in the ANOVA for social communication, paired T tests were completed for the intervention group and small significant effect sizes were found for social awareness, social communication, social cognition and social motivation. No significant findings were found for the control group. Siu (2014) concluded that this indicates children within the Theraplay group showed improvements in their perceived social abilities, however, acknowledges the possibility that Type One Errors could have been made. There were no significant findings found for children's interactions with peers or responsiveness to instructions in the observation measures.

Park and Lee (2014) reported significant increases in sociality, pro-sociality and total peer competence for the intervention group, and no significant differences found for the control group. However as noted previously, there is limited information regarding implementation of the intervention.

Francis et al. (2017) found a significant increase for prosocial SDQ scores for girls after the intervention and report that interview data showed an increase in positive relationships with peers.

Tucker et al. (2017) reported significant differences between intervention and control group scores for some of the elements of the Creative Curriculum GOLD measure (Lambert, Kim, & Burts, 2014). For Ages and Stages Questionnaire-3 Social-Emotional scales there was a significant interaction found for pre-and post-test scores for the intervention group but with a small effect size.

2.5.7.6.2 Student-Teacher Relationships

Tucker et al. (2017) reported significant differences with high effect sizes found between teachers in the intervention and control groups for certain questions of the TPOT. However, there are no details as to what these questions represent making it difficult to interpret meaning. Tucker et al. (2017) also reported based on their qualitative data that teachers who had used the Theraplay intervention "were more

likely to view behavioural problems as being reflections of an internal struggle the child was having in relationship to the environment rather than purposeful or naughty" (p.192). However, interviews were conducted by the principal investigator who is the Research Director for the Theraplay institute and there was no discussion with regards to independent checks being completed with the data.

Salisbury (2018) found Student-Teacher Relationship (STRS) closeness scores improved for 4/5 children and STRS conflict scores decreased for all children, although these were not significant. Child-Adult Relationship closeness scores showed improvement for 3/5 children. Positive interactions observed increased 325% although as noted previously there is no detail as to the definition of these interactions. There were positive comments reported from child and teacher interviews, however no detail as to collection or analysis of this data.

2.5.8 Limitations

A limitation of this review is that the decisions regarding the weighting of evidence and synthesis of results have been made by the researcher alone and there have been no independent checks to validate those decisions. A different criteria used to define the WOE may have led to different conclusions regarding the quality of the research (Gough et al., 2012). This is particularly relevant as one of the papers reviewed (Francis et al. 2017) was co-authored by the researcher. The review has therefore tried to ensure that information discussed is only based upon information provided within the papers, and not prior knowledge of the research or intervention.

It is also acknowledged that only a small number of papers were found, and it may be that despite the systematic process the researcher has undertaken, some papers were missed. Furthermore, papers that were not published were not included in the literature review, which while may help to ensure that the research is of a certain standard could mean that some research findings have been overlooked.

2.5.9 Conclusions of the Systematic Review

The focus of the systematic review was to examine the question 'what impact does Theraplay have on children/young people and teachers within education settings?' Overall, the findings suggest that Theraplay has a positive impact on children's behaviour and student-teacher relationships, however these findings are tentative given the small number of studies found and the limitations of the methodology and design employed. Therefore, it cannot be yet be confidently concluded that Theraplay is an effective intervention within education.

2.6 Rationale for Research

The systematic literature review has identified there is a current lack of evidence to support the use of Theraplay within education settings. Despite this, the researcher is aware that within the Local Authority that they are based in, Theraplay is being used as intervention within education settings. It was therefore identified that this would be an important area to research.

2.7 Research Questions

1. How are Theraplay interventions implemented within education settings?
2. Does Theraplay intervention within an education setting have an effect on behaviour for children identified with SEMH needs?
3. Does Theraplay intervention have an effect on student-teacher relationships for children identified with SEMH needs?

3 Methodology

Within this chapter, philosophical assumptions underpinning this research will be defined. Different methodological and design aspects are considered, and the method and procedure used in the present study is described. Validity, reliability and ethical considerations are then noted.

3.1 Educational Research

There is increasing focus on the understanding and delivery of evidence-based interventions within schools (Killerby & Dunsmuir, 2018) which has been influenced by ongoing political pressures to demonstrate clear links between professional practice and research (Cole & Dunsmuir, 2018; Fox, 2003). Government guidance has emphasised the need for evidence-based interventions (Department of Health & NHS England, 2015) and caution schools to not use interventions that "may have little impact or potentially exacerbate pupil mental health problems" (p. 23. Department for Education, 2018).

This is significant given previous concerns over schools/local authorities enrolling on programmes and using interventions that have little evidence-base (Goldacre, 2009) which could arguably lead to loss of money and time. Or worse, have harmful effects upon children (Cohen, Manion, & Morrison, 2011; Torgerson & Torgerson, 2001). Therefore, it is important that interventions are tested and evaluated.

3.2 Real World Research

One way of evaluating interventions is completing research in real life settings. Real world research takes place outside the laboratory and in settings where people may work, learn and play (Robson & McCartan, 2016). The research often examines problems that are directly relevant to people's lives, in complex situations and can be used to inform practice and policy decisions (Robson & McCartan, 2016).

The current study aims to complete research in 'real life' education settings and gather a better understanding of the impact of Theraplay interventions in this context

3.3 Philosophical Approaches

The researcher's philosophical orientation will have implications for research decisions (Mertens, 2015) and therefore the epistemological standpoint is defined for this study.

Variations with regards to how researchers view the world will subsequently impact the 'knowledge base' which they work from (Allison & Pomeroy, 2000). This world view or basic belief system is often referred to as a paradigm; a "shared belief systems that influence the kinds of knowledge researchers seek and how they interpret the evidence they collect" (p.50, Morgan 2007).

A paradigm consists of the following components (Scotland, 2012):

- **Ontology:** focuses on the nature of reality (Allison & Pomeroy, 2000; Mertens, 2015). For some researchers there is a single reality which needs to be discovered and for others there are multiple socially constructed realities (Allison & Pomeroy, 2000).
- **Epistemology**: the nature of knowledge (Allison & Pomeroy, 2000; Mertens, 2015) and in particular "how knowledge can be created, acquired and communicated …what it means to know" (p.9 Scotland, 2012).
- **Methodology:** the approach, strategy or plan undertaken to obtaining the desired knowledge and understanding (Mertens, 2015; Scotland 2012).

The three paradigms that were considered in relation to this research are summarised in Table 3-1 and described below:

	Post-positivism	Constructivism	Pragmatism
Ontology	Critical Realism: One reality although human limitations mean that it can only be known imperfectly.	Ontological Relativism: Multiple socially constructed realities.	There is a single reality and there are diverse viewpoints with regards to interpretation of that reality.
Epistemology	Modified Dualism: Objectivity should be strived for and critical traditions and the critical community is important in this goal.	Transactional/Subjectivist created findings: Interactive link between researcher and participants – findings are co-constructed.	Both objective and subjective points of view depending on purpose and stage of process of the study.
Methodology	Primarily quantitative	Primarily qualitative	Both qualitative and quantitative – methodology is selected based on what would best answer the research questions.
Sources used to inform table: Allison & Pomeroy, 2000; Guba & Lincoln, 1994; Mertens, 2015; Morgan, 2007; Teddlie & Tashakkori, 2009			

Table 3-1 Summary Characteristics of Three Paradigms Considered in Relation to this Research

3.4 Philosophical Assumptions Underpinning this Study

A post-positivist position was rejected given the methodologies employed often require a high degree of control which is difficult and impracticable in real world settings (Robson & McCartan, 2016). A constructivist positioning was also inappropriate as this approach would struggle to address the purpose of the research due to its potential subjectivity (Scotland, 2012). Therefore, a pragmatist positioning was adopted for this study.

Pragmatism provides a philosophical and methodological middle position to post-positivism and constructivist paradigms (Johnson & Onwuegbuzie, 2004) and rejects the need to adopt extreme positions (Morgan, 2007). Researchers adopting a pragmatic positioning select the research methods that best answer the research questions (Johnson & Onwuegbuzie, 2004) and are flexible in their approach to the research and willing to manage and be open to unexpected data (Feilzer, 2010). The topic and method of study is based on what is important to the researcher and their personal values/beliefs (Teddlie & Tashakkori, 2009).

Limitations include different definitions and understandings of pragmatism (Denscombe, 2008). Some researchers may adopt pragmatism to avoid traditional philosophical disputes (Humphrey, 2013; Johnson & Onwuegbuzie, 2004) or consider pragmatism as an 'anything goes' approach which does not have a philosophical underpinning (Denscombe, 2008; Hall, 2013)

3.5 Methodological and Design Considerations

Within pragmatism, the overall aim is to ensure that the research method is matched to the question or theory that is being asked or explored (Feilzer, 2010). The approach typically leans toward using both qualitative and quantitative approaches and these may be used at different points in the process (Teddlie & Tashakkori, 2009).

3.5.1 Quantitative Approaches

Quantitative data is relatively quick to collect and analyse, producing precise numerical data and can have greater credibility with stakeholders (Johnson &

Onwuegbuzie, 2004). However, limitations include that less detailed and in-depth results are produced in comparison to qualitative methods (Lund, 2012).

3.5.2 Qualitative Approaches

Qualitative approaches can create rich detailed information about people's experiences, phenomena and identify important contextual/setting factors which may have an impact of the phenomena of interest (Johnson & Onwuegbuzie, 2004). However, this approach can be less objective than quantitative methods and it is more difficult to test hypotheses and theories (Johnson & Onwuegbuzie, 2004; Lund 2012).

3.5.3 Critique of the Qualitative and Quantitative Debate.

The distinction between qualitative and quantitative methods is often presented simplistically and there can be overlap between the two methods (Brannen, 2004). For example, both methods can be generalisable, with quantitative data being generalised to a wider population and qualitative data being generalised to different contexts or theories (Brannen, 2004). Furthermore, it is impossible to be completely objective (proposed in quantitative approaches) or completely subjective (proposed in qualitative approaches) and this forced dichotomy is arguably unrealistic (Morgan, 2007) .

3.5.4 Mixed Methods Research

Mixed method research combines qualitative and quantitative approaches (Johnson & Onwuegbuzie, 2004). There are concerns mixed methodology is "positivism dressed in drag" (p.198, Giddings, 2006) and there are practical difficulties in implementing and integrating mixed method research (Johnson & Onwuegbuzie, 2004). However, by adopting mixed methods the strengths of quantitative and qualitative methods are combined, providing insight and understanding that may be missed if only one method is used and potentially provide stronger evidence to a collusion through convergence of findings (Johnson & Onwuegbuzie, 2004) and therefore this methodology was selected for the current study.

3.5.5 Research Designs Considered

Key factors considered when selecting a research design included; time availability, the heterogenous nature of participants and the variability of Theraplay interventions which have no set manualised method.

Due to these factors Randomised Control Trails were not used because they usually require a large sample of participants (Torgerson & Torgerson, 2001). In addition, as the researcher sought to evaluate Theraplay interventions that were already due to take place within education settings it would have also been unethical to randomly assigned children into intervention and control groups, given children were already due to take part in the interventions. Furthermore, this design would likely need an intervention that is clearly specified and possibly manualised to ensure all children within the intervention group were receiving the same intervention (Barker, Pistrang, & Elliot, 2002). However, Theraplay interventions are not manualised and their delivery can vary depending on the needs of the child (Booth & Jernberg, 2010). Similar limitations apply to quasi-experimental designs.

3.5.6 Case Study

Yin (2018) defines a research case study approach as:

> "an empirical method that investigates a contemporary phenomenon (the "case") in depth and within its real-world context" (p. 15).

Case study research is a methodology which can be used to evaluate interventions in a variety of situations (Yin, 2018). Case studies can capture the complexity of an issue by attending to contextual conditions which provide a more holistic perspective of a situation (Harrison, Birks, Franklin, & Mills, 2017; Noor, 2008; Yin, 2018).

Yin (2018) argues when designing case study research, there are five components which need to be considered:

1. Case Study's Questions

Yin (2018) suggests a case study approach is particularly useful for 'how' and 'why' questions. Literature and fieldwork can be used to narrow the research question. Yin

(2018) notes that the challenge is to define a research question which offers new insights into an area but is not too trivial or minor issue.

The research questions for the current study were informed by both the researcher's fieldwork experience of using Theraplay in education settings and by a literature review examining the potential impact of Theraplay interventions in education settings (as detailed in Section 2). The research questions for this study were focused on both how Theraplay interventions are implemented and what impact they may have.

2. Study Propositions

Yin (2018) argues that "each proposition directs attention to something that should be examined within the scope of study" (p. 27). The researcher is usually required to make a speculation as to what the findings of the research could be (Jennifer, 2002). Propositions are important to help ensure the research is moving in the correct direction and to guide the researcher as to where to look for relevant evidence (Yin, 2018).

Table 3.2. details the propositions for the current study. As noted, this study's propositions were informed by findings from the literature review (see section 2) and the researcher's personal experience in delivering Theraplay interventions.

Research Question	Propositions
How are Theraplay Interventions Implemented?	• Theraplay interventions are adapted to meet the needs of the individual children • Theraplay sessions include elements of nurture, structure, challenge and engagement • Theraplay sessions are led by the adult
Does Theraplay intervention within an education setting have an effect on	• Theraplay interventions could increase positive behaviours • Theraplay interventions could decrease problematic behaviours

behaviour for children identified with SEMH needs?	
Does Theraplay intervention within an education setting have an effect on student-teacher relationships?	• Theraplay interventions could change the teacher's perception of their relationship with the child.

Table 3-2 Description of Propositions for Case Study Design

3. Defining the Case(s)

Yin (2018) suggests that care should be taken in defining what the 'case' or 'unit of analysis' is within a case study. The 'case' is an area in which the researcher is interested and can include a single person, an entity, event, group, project, organisation or geographic area (Robson & McCartan, 2016; Yin, 2018). Definition of a 'case' can be derived on how the initial research questions(s) are defined (Yin, 2018). Bounding of the case is important in determining what elements are the 'case' and what elements are the 'context' (Yin 2018).

When defining the case, consideration should also be made as to whether the research design will be 'embedded or holistic' and 'single or multiple' (Yin, 2018). Embedded case study designs include multiple units of analysis which are explored individually and then the findings from these units are brought together to provide an overall picture (Jennifer, 2002). This contrasts with holistic case studies which only examines the case as a single unit such as examining an organisation at a global level (Yin, 2018). Limitations of using a holistic approach include that changes in the unit of analysis could be missed (Rowley, 2002) and can mean the case study could be completed at an abstract level resulting in a lack of clear measures (Yin, 2018).

Multiple case studies designs have been argued to be preferable to single case study designs in helping to ensure there is an alternative to the research if there is a complication with the first case study (Yin, 2018). Furthermore Yin (2018) describes

case studies as being similar to single experiments and that multiple case studies are like having multiple experiments. This can either include direct replication of the first case study or could include a study in a contrasting situation; both scenarios could strengthen findings in comparison to a single case study alone (Yin, 2018).

Within the current study, consideration was given as to what would be the 'case' and it was initially considered to treat each individual participant as a separate case. However, the 'how' research question led the researcher to conclude that the case was the 'implementation of a Theraplay intervention in an education setting'. This was strengthened when the opportunity arose to complete research in a different setting, with the approach being used in a different way, and with different participants (see section 3.6.3). This therefore enabled research to be completed for two case studies in contrasting situations with selected participants in each study being the 'embedded units' within the case enabling more extensive analysis to be undertaken in contrast to a holistic design (see Figure 3.1). The context of each case study included information with regards to the functioning of the education setting. Limitations of this design choice are explored in section 5.2.1.

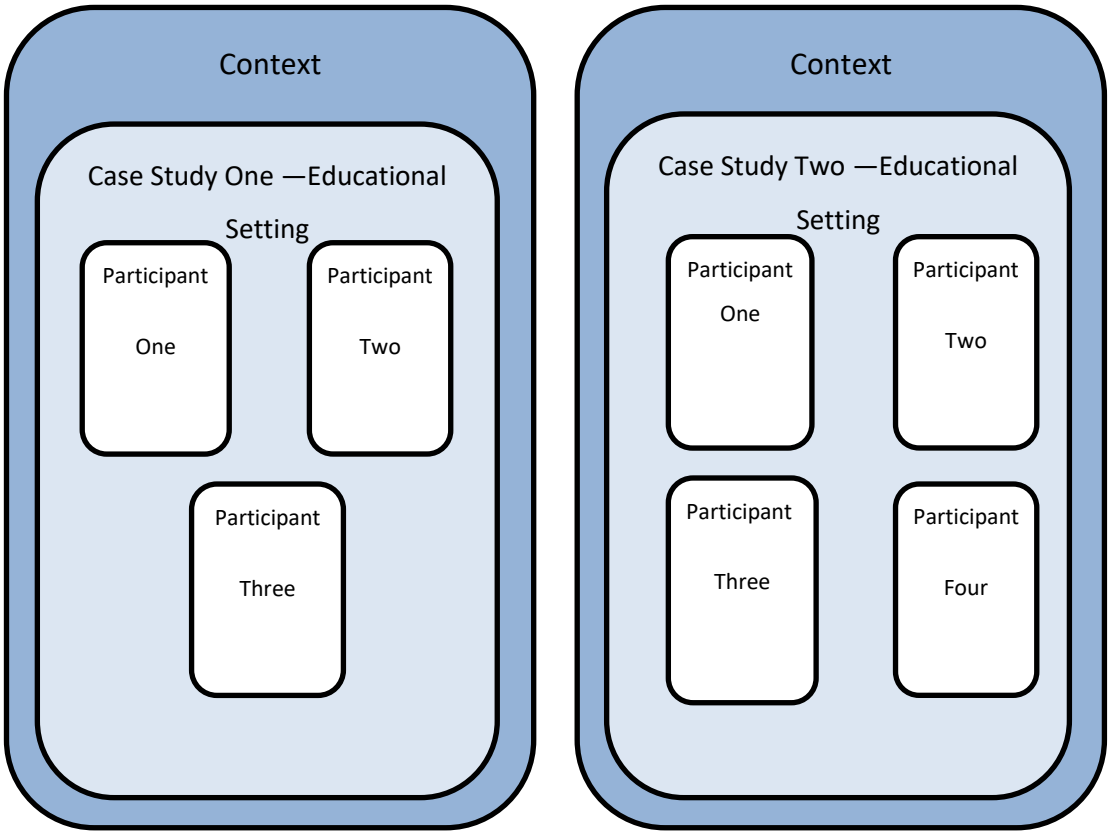


Figure 3-1 Pictorial Representation of Research Design

4. Linking the Data to the Propositions

Yin (2018) suggests that researchers need to be aware of the different choices they have with regards to data collection and analysis. It is important to consider what data is required that will support or refute the propositions (Rowley, 2002).

Within a case study, multiple sources of data are used and triangulated (Yin, 2018). While traditionally seen as an approach that primarily uses qualitative data (Robson & McCartan, 2016; Teddlie & Tashakkori, 2009), Yin (2018) suggests adopting mixed methods within a case study design is possible and notes that often the methods will share the same research questions, collect complementary data and enable counterpart analyses to be conducted (see Sections 3.5.8 and 3.5.9 for further detail with regards to qualitative and quantitative data collection). Sections 3.6.4.6 and

3.6.5.7 details the data sources selected for each research question and is summarised in the table below.

Propositions	Link to Data
• Theraplay interventions are adapted to meet the needs of the individual children • Theraplay sessions include elements of nurture, structure, challenge and engagement • Theraplay sessions are led by the adult	• Semi-structured interviews with Theraplay Facilitators and Staff Members • Written logs of Theraplay interventions • Triangulation of data from these two sources
• Theraplay interventions could increase pro-social behaviours • Theraplay interventions could decrease problematic behaviours	• Pre and post questionnaires completed by the teacher with regards to the children's behaviour • Repeated measures of target behaviour • Semi-structured interviews with Theraplay Facilitators and Staff Members • Triangulation of data
• Theraplay interventions could change the teacher's perception of their relationship with the child.	• Pre and post questionnaires completed by the teacher with regards to their relationship with the child • Semi-structured interviews with Theraplay Facilitators and Staff Members • Triangulation of data

Table 3-3 Case Study Propositions and Links to Data

5. Criteria for Interpretation of Strength of Case Study's Findings

Yin (2018) suggests that identifying rival explanations for the case study's findings can be an important strategy in the design stage of the research. By identification of these rival explanations at this stage, it can help guide data collection and analysis (Yin, 2018). Rival explanations considered at this stage were:

Type of Rival Explanation	Steps Taken to Address the Rival Explanation
Threats to Validity	See Section 3.8 for description of validity and reliability considerations of the study
Investigator Bias	Discussion of data with research supervisor and being open about possible biases
Direct Rival and Commingled Rival	Use of Theraplay logs completed by the Theraplay Facilitator and regular communication with education staff with regards to other factors that could have affected the children's behaviour Evaluated the intervention in two different settings and at different times of the year
Implementation Rival	Selection of Theraplay Facilitators who were trained in at least Level One Theraplay and the use of Theraplay logs to gather information with regards to the implementation of the intervention

Table 3-4 Rival Explanations considered in the Case Study Design

Limitations of case study designs include difficulties in generalising findings from the case study to the wider population (Noor, 2008). However, Yin (2018) notes this is no different to generalising findings from a single experiment, and the purpose of the case study is to expand and generalise theories rather than generalise to populations. Difficulties also include the research itself is an uncontrolled intervention on the lives of others, and activities such as interviews/observations can have an unintended impact on people (Walker, 1983). Furthermore, case studies can be biased and

subjective (Walker, 1983) and Yin (2018) acknowledges that they can be difficult to implement to a high standard.

3.5.7 Methodological Approach Used in this Study.

The methodological approach adopted is a mixed method multiple-case embedded design as visually represented in Figure 3.1. The next section will describe the qualitative and quantitative aspects of the research design.

3.5.8 Quantitative Aspect of this Study

Two quantitative methods were employed to answer research questions two and three (see section 2.7).

3.5.8.1 Single Case Experimental Designs

Single Case Experimental Design (SCED) is a research methodology which can demonstrate causal relationships between independent and dependent variables within a single case (Ray & Schottelkorb, 2010). The 'case' can refer to a single participant or a group of individuals (Kratochwill et al., 2010) and each participant serves as their own control (Lane & Gast, 2014). Measurement of the dependent variable (DV) involves repeated measurement of a target behaviour prior, during and sometimes after an independent variable (IV) is implemented (Cakiroglu, 2012; Horner et al., 2005; Kratochwill et al., 2010). The IV is often an intervention (Lane & Gast, 2014).

SCEDs can be applied in both special education (Cakiroglu, 2012; Horner et al., 2005) and play therapy research (Ray & Schottelkorb, 2010). SCEDs enable research on small populations (Cakirioglu, 2012). Within group-based-designs, the averaging of pre- and post-performances means people who did not respond to the intervention can be lost, in contrast to SCEDs where the performance of each person is monitored throughout (Cakirioglu, 2012; Horner et al., 2005).

3.5.8.2 SCED Designs Considered

There are a range of SCED designs which can be used (Cakiroglu, 2012). Consideration was given to which design would be ethical and practical for the nature of the intervention and the time available.

A withdrawal design which involves the removal of the IV during at least one phase of the study (Cakiroglu, 2012) was rejected due to ethical concerns of withdrawing the intervention (Cakiroglu, 2012). Furthermore, it is not practical for behaviours which are not reversible, such as learning a new skill, which once mastered cannot return to a previous state and therefore cannot demonstrate a functional relationship between the intervention and the behaviour (Cakiroglu, 2012).

A multiple-baseline design across participants was also considered in which the intervention is staggered across participants resulting in different lengths of baseline for each participant (Hersen & Barlow, 1976). However, the Theraplay interventions implemented were group interventions meaning the children received the intervention at the same time and the baseline could not be staggered. Furthermore, different repeated measures were used for the participants (see sections 3.6.4.4.1 and 3.6.5.5.1).

Given the difficulties in implementing a withdrawal or multiple baseline design, an AB SCED design was selected for this research. Within an AB design the A phase represents the baseline in which repeated measures are taken but there is no IV. In the B phase the IV is introduced and repeated measures continue to be taken (Hersen & Barlow, 1976). DV changes observed in the B phase could indicate possible effects of the intervention, however with reservation (Hersen and Barlow, 1976). Such reservations include that the lack of replication and randomisation means ruling out alternative explanations for the observed effect is very difficult (Kratochwill et al., 2010; Kratochwill & Levin, 2010). Nevertheless, it is likely that this approach will provide more fruitful data then if just pre- and post-measures were completed. A follow-up phase (ABA) design was not appropriate given the limited time available and potential strain on staff who were completing the repeated measures. The researcher therefore accepts the limitations, and these will be considered in analysis and discussion of results.

3.5.8.3 Pre- and Post-Questionnaires

Two pre- and post-questionnaires completed by education staff were used to provide further information to the quantitative research questions (further details are

described in sections 3.6.4.4.2 and 3.6.4.4.3). Pre-test post-test single case designs have validity threats such as history or maturation effects (Mertens, 2015; Robson & McCartan, 2016). However, multiple sources of evidence within case studies and mixed methods research can help strengthen validity as well as allowing the limitations of a method to be neutralised or offset (Doyle, Brady, & Byrne, 2009; Yin, 2018).

3.5.9 Qualitative Aspect of this Study

Two qualitative methods were employed to answer all three research questions (see section 2.7).

3.5.9.1 Post-intervention interviews

Interviews are important in case studies (Yin, 2018). They are a flexible method that can provide important insights (Yin, 2018) and sometimes provide a shortcut to answering the researcher's questions (Robson & McCartan, 2016). Limitations include bias and inaccurate recall or articulation of information (Hammersley, 2017; Yin, 2018) and a lack of standardisation means there are reliability issues (Robson & McCartan, 2016).

Semi-structured interviews were considered the most appropriate as it enabled the researcher to identify key areas to explore with the interviewee but offered flexibility in adapting the questions to different people and contexts (Robson & McCartan, 2016). Given the research focus, interviews were limited to education staff and the Theraplay Facilitator.

3.5.9.2 Written records of the implementation of Theraplay intervention

The purpose of the written records of the Theraplay intervention was to help gather a better understanding of how the interventions were implemented within the educational settings and to assess the fidelity of the intervention.

Assessment of the fidelity of the intervention (or IV implementation) is important in single case studies (Horner et al., 2005; Hott, Limberg, Ohrt, & Schmit, 2015). However, in play therapy research there has been a historical lack of description of the interventions used and additional challenges in that many play interventions are

not manualised (Ray & Schottelkorb, 2010). Hott et al., (2015) advises that a simple checklist of the key components of the intervention can be created and used to assess intervention integrity.

Therefore, to identify what activities were completed within the sessions a log was created for Theraplay Facilitators to record what activities they did in each session. The log was based on the Theraplay training the researcher had received and on a Theraplay manual (Schieffer, 2011) and Theraplay resources (Booth & Jernberg, 2010; Munns, 2000). The log included key activities that would normally be expected within a Theraplay session as described in section 3.6.2.1. The logwas designed so it could be completed quickly, and Theraplay Facilitators were reassured that they did not need to complete all activities on the log, as it was merely to get a better understanding of the format of the sessions.

3.4.10.3 Other methods considered

Two qualitative methods were considered and decided not appropriate for the current research.

Documentary evidence such as participant's academic records was rejected, due to concerns that asking to look at this information may seem invasive and a barrier to participation. However, documentation that was freely available such as Ofsted reports was used to help gather a better understanding of the context.

Observations of the Theraplay interventions would have enabled fidelity checks as there is a risk of inaccurate/false records of the interventions. However, this also could be a potential barrier to educational settings engagement with the research and ethically there is a risk that the researcher's presence could have an impact on the child(ren)'s engagement within the sessions.

3.5.10 Summary

In the current study, informed by a pragmatic philosophical position, a mixed method multiple-case embedded design is adopted in which each 'case' is a different educational setting implementing Theraplay interventions. Within each case both qualitative and quantitative methods are employed to help gather as much data as

possible which can be summarised in the figure below. The next section will consider how these paradigmatic and methodological choices were applied to the research.

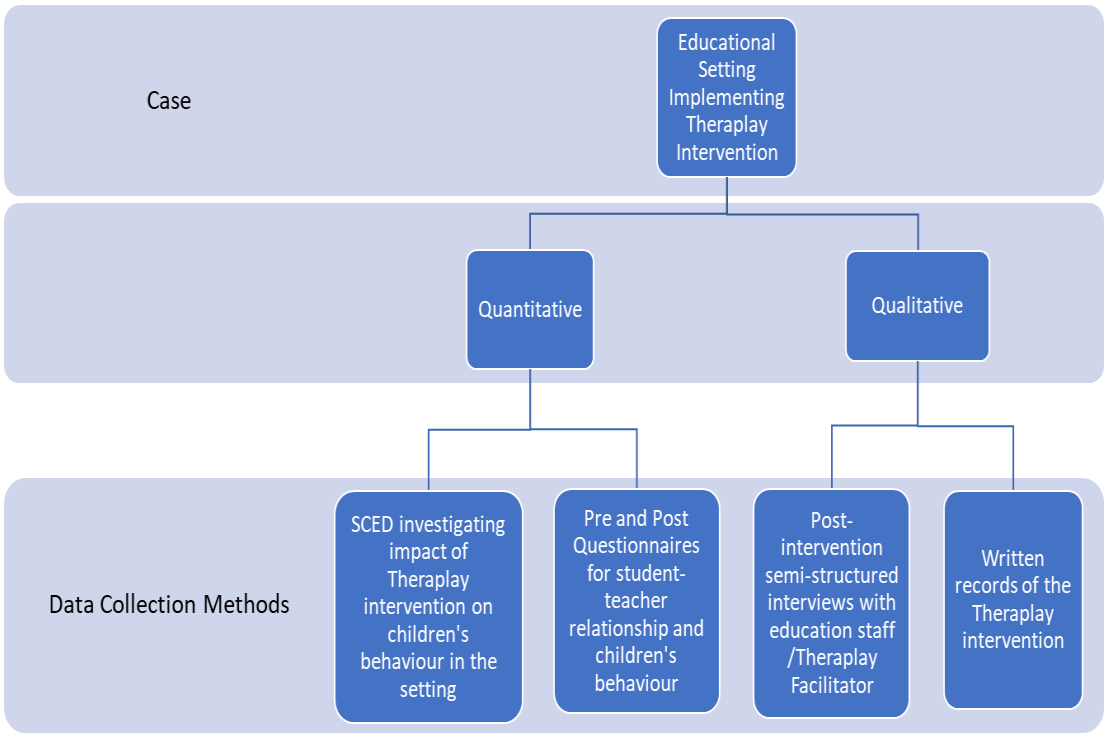


Figure 3-2 Pictorial Representation of Methodology Employed

3.6 Study Design

3.6.1 Stakeholders

Several stakeholders were considered in both the planning and implementation stages of the research.

University of Nottingham

The research was conducted as part of a requirement for the doctoral training programme the researcher was undertaking. Discussions were completed with university tutors as to the focus and design of the study to ensure it met the requirements of the programme.

Local Authority and Educational Psychology Service.

The researcher was on placement within a Local Authority which was funded through a bursary. The Local Authority employs a Theraplay Manager who provides Theraplay training and manages several Theraplay Practitioners employed within the organisation. The research was discussed with the Principal Educational Psychologist before the beginning of the placement and it was agreed that this was an area of research that would be beneficial both for the Educational Psychology service and the Local Authority. The service was updated as to the progress of the research through regular discussion with the researcher's supervisor on placement.

Theraplay Organisation.

The researcher liaised with the Local Authority Theraplay Manager to discuss the aims of the research and to identify settings that were implementing the approach (see section 3.6.3).

Education Settings.

Schools and nurseries that were implementing the Theraplay research were central. The design and implementation of the research were agreed with school staff including the Head Teacher, Nursery Manager and the Theraplay Practitioner.

3.6.2 Intervention

Theraplay is described in section 2.4. The researcher sought settings that were due to implement the intervention who may wish to have their intervention evaluated. After the education settings were approached two main Theraplay interventions, Group Theraplay and Sunshine Circles, were identified as being implemented.

3.6.2.1 Group Theraplay and Sunshine Circles

Group Theraplay and 'Sunshine Circles' are terms that are often used interchangeably to describe Theraplay group interventions (Tucker et al., 2017) with 'Sunshine Circles' being specifically developed for education settings (Schieffer, 2011). The sessions continue to focus on the four dimensions described in section 2.4.2. Sizes of groups can vary from four to 30 children (dependent on the setting and the child's needs) (Munns, 2000). Sessions are typically 30 minutes long although can be shorter dependent on the child's needs and are usually once or twice a week. The 'rules' of the sessions are 'no hurts, stick together and have fun' with the unspoken rule being that 'the adult is in charge'. Schieffer (2011) and Munns (2000) describes the format of a typical session as including:

- Entrance (funny walk in)
- Welcome Song
- Reviewing the 'rules'
- Check-ups - taking care of hurts
- Playing games (a mixture of activities based on the four Theraplay dimensions).
- Food share
- Closing song

3.6.3 Selection of Education Settings

The research required the identification of schools that were due to implement Theraplay interventions. Schools were identified through discussions with the Theraplay Manager and Educational Psychologists in the Local Authority, who approached the schools to ask for permission to be contacted by the researcher. In

total six primary schools provided permission for the researcher to contact them. After initial discussions regarding the research, four schools declined to take part.

Two schools did report interest in the research. For one school consent was gathered from the school and parents, although the children did not provide consent and therefore the research was not implemented.

Due to difficulties in recruitment, the researcher had further discussions with the Theraplay Manager in December 2018 who suggested the criteria be extended to include children within nursery settings. The researcher therefore sought ethical approval from the Chairman of the Ethics Committee to extend the age range of the children for the research (Appendix, K, section 7.11) which was given in January 2019 and a nursery setting was identified.

3.6.3.1 Inclusion Criteria for Theraplay Intervention

Table 3-5 summarises the inclusion criteria for which Theraplay interventions were selected to be researched.

Inclusion Criteria	Rationale
Educational settings implementing Theraplay interventions. Parent-child interventions were not included.	There is limited Theraplay research within education settings so a range of Theraplay interventions was included to help ensure as many different approaches were captured, with the case study design allowing for this variety. The focus of the research was how interventions were used in educational settings therefore parent-child interventions were not included.
Person implementing the intervention must be trained in at least Level One Theraplay/Group Theraplay and have an enhanced Disclosure Barring Service clearance.	Criteria set to increase the likelihood of safe practice and the intervention being implemented to a minimum standard.

Table 3-5 Inclusion criteria and rationale for Theraplay Intervention

3.6.3.2 Inclusion Criteria for Participants

The inclusion criteria and rationale for participants is described in Table 3-6

Inclusion Criteria	**Rationale**
Children identified by schools as having SEMH difficulties that were due to take part in a Theraplay intervention within an education setting.	SEMH needs is an important area in education (Colley & Cooper, 2017). Wide criteria to increase likelihood of recruitment. The decision to not include a screening measure was made due to the limited number of participants available, however the Strength and Difficulties Questionnaires scores did provide some indication of the children's needs in addition to initial discussions with education staff.
Children aged two years to 11 years old	The age range was extended to meet the context of the Local Authority after recruitment for primary schools was limited and there was evidence the approach was being used in nursery settings.

Table 3-6 - Inclusion criteria and rationale for selection of participants

In total two settings were identified and participated in the research;

- A specialist school in which one class were due to implement 'Sunshine Circles' with the whole class
- A nursery within a mainstream primary school which were due to implement Group Theraplay with a select number of children

In line with a pragmatic position, research methods were adapted to meet the needs of the educational settings and therefore are described separately in the following sections.

3.6.4 Case Study One (CS1)

3.6.4.1 Setting Description

The setting for case study one (CS1) was a class within a community specialist school in a rural district which was due to implement 'Sunshine Circles' as a whole-class intervention.

The specialist school has capacity for up to 60 children aged three to 11-years-old who experience complex learning difficulties and disabilities, with 40% of children having a diagnosis of Autism. All children attending had Education Health and Care plans and the majority were White British. Ofsted rating was outstanding. The school included a sensory room and soft playroom.

The class was described as a 'nurture classroom' which was for children with SEMH needs. There were eight children aged between six and nine-years old and two teachers and three teaching assistants (TAs).

3.6.4.2 CS1 Participants

Four participants were identified by the school staff (teacher and two TAs) and Theraplay facilitator. However, during the baseline period of the study, one participant left the school and therefore is not included in the research. Below is a summary of each participant - pseudonyms are used to protect identities - based on information provided by school staff (see Table 3-7).

Child	Year Group	Ethnicity	Diagnoses/Reported Difficulties	Reported SEMH difficulties	Other Reported Complexities
Angus	Three	White British	• Attention Deficit Hyperactivity Disorder (ADHD) • Hearing impairment • Delayed expressive language difficulties	• Social communication and interaction difficulties • Reluctance to partake in group activities – hiding in the room • Repeated verbal comments which may be perceived to be offensive • Mainly solitary play	• Parents have recently separated and living arrangements vary each week • Numerous managed moves to different settings • Experienced several medical operations due to hearing impairment
Malcolm	Four	Black British	• Epilepsy • ADHD	• Presents as being very loud • Lack of awareness regarding other people's personal space • Copy other children's verbal comments and movements • Children are reluctant to play with him • Very energetic and struggles to regulate behaviours	
Brian	Two	White British	• Global Developmental Delay	• Social communication difficulties • Does not initiate play with other children • Difficulties maintaining attention	When he first arrived at the school (September 2018) he showed no verbal communication but is now able to speak in small groups and one-to-one situations

Table 3-7 - Summary information of participant's characteristics for CS

3.6.4.3 CS1 Theraplay Intervention

The 'Sunshine Circles' was a weekly group session with all children in the class and teaching staff which began in January 2019. The group was facilitated by a Theraplay Facilitator (TF) who was trained as a Theraplay Practitioner and employed by the school as a teacher. The TF had completed Theraplay work with different classes within the school however this class had not had 'Sunshine Circles' before.

Overview of Timeline for CS1

September 2018 to November 2018	**29/11/18 to 19/12/18**		**3/01/19 to 10/01/19**	**11/01/19 to 15/02/19**	**February to March 2019**
Initial Phase Consent Pre-measures	**Baseline Phase**	**Holidays** **(Two weeks)**	**Baseline Phase**	**Intervention Phase**	**Final Phase** Post measures Interviews with staff and Theraplay Facilitator Debrief

Table 3-8 Overview of timeline for CS1

3.6.4.3.1 Consent

Consent to complete the research was sought from University of Nottingham ethics committee. Once approved (Appendix F), information was provided to the school and consent was asked from the Head Teacher and TF (Appendix G). Consent was asked from parents of the four children identified by the education staff (Appendix H) with the researcher also offering to meet them in person or discuss the research. One parent contacted the researcher to discuss the research. Consent for incidental filming was also sought for parents of the other children in the class and teaching staff (Appendix J). One child's parents did not consent to the child being recorded and therefore staff were informed both verbally and by email to ensure steps were

taken to not include the child in any video recordings. Consent was later sought from a Teaching Assistant and TF to complete post-intervention interviews (see Appendix L).

Parents were informed that if they did not want their child to take part in the research then this would not affect the child's participation in the Theraplay activities. Children were spoken to with the support of Teaching staff and children's consent letters were adapted using symbol writing software (SymWriter 2) to help support the children's understanding of what they were being asked (Appendix I).

3.6.4.3.2 Initial Phase

Discussions were completed with the teacher, three TAs and the TF to clarify the research purposes and to help identify target behaviours to monitor for the repeated measures of the SCED. The teacher also completed the two pre-questionnaires (see sections 3.6.4.4.2 and 3.6.4.4.3).

3.6.4.3.3 Baseline

Based on the discussions with education staff with regards to possible target behaviours, an observation coding schedule was then developed for each child for the researcher to complete (see section 3.6.4.4.1 and Appendix O). Regular video recordings were completed by school staff of the three children (see section 3.6.4.4.1.3). The intervention was delayed by the TF resulting in a baseline of six weeks being collected. Within the baseline period there was a two-week school break for the Christmas holidays.

3.6.4.3.4 Intervention

During the intervention phase, Theraplay sessions were completed by the TF in the classroom once a week. The TF completed a log after each session (Appendix M).

Staff continued to complete regular video recordings of the three children in class. Video recordings stopped on 7th February (week eleven) due to staff capacity.

Throughout baseline and intervention phases, the researcher remained in regular contact with the TF and school staff with regards to practicalities in taking the measures.

3.6.4.3.5 Final Phase

Originally the intervention was planned to finish on 15th February and therefore the researcher arranged a semi-structured interview with the TF on 23rd February. However, during this interview, the researcher was informed that the intervention would continue after the holidays. A 12-week limit was set for repeated measures to prevent prolonged testing and therefore no further repeated measures were collected. Due to the limited availability of the TF, it was also decided to continue to complete the semi-structured interview on 23rd February, but limitations created by this are acknowledged in section 5.2.4.1. A further semi-structured interview was completed with a Teaching Assistant (TA) on 21st March (see Appendix P for semi-structured interview schedule).

Post-intervention questionnaires were completed by the teacher. Staff, parents and children were debriefed by letter (Appendices Q, R, S) with an opportunity to contact the researcher if they wanted further information.

3.6.4.4 Measures for the Quantitative Aspects of the Case Study

3.6.4.4.1 DV Children's Behaviour - Observations

3.6.4.4.1.1 Rationale

Observational methods can ensure a range of behaviours occurring in their natural environment are captured (Nock & Kurtz, 2005) in contrast to potentially artificial contexts of interviews or questionnaires (Cotton, Stokes, & Cotton, 2010). Observations allow researchers to examine directly what people are doing (Teddlie & Tashakkori, 2009) rather than rely on what they report they do which can have potential limitations of social desirability, memory limitations and selectivity (Cotton et al., 2010; Nock & Kurtz, 2005).

Video recordings allow a more accurate recording of events in comparison to completing observations in person (Cotton et al., 2010) which can be limited by issues such as 'observer drift' (Robson & McCartan, 2016). There is a concern of reactivity, resulting in the children or the teachers changing their behaviour when they are recorded, and therefore familiarising with equipment is helpful (Cotton et al., 2010). This is likely to have been achieved by the baseline being extended by the TF.

3.6.4.4.1.2 Description

Horner et al., (2005) suggests observations are the most frequently used method for DVs in SCEDs and suggests that DVs:

- Are operationally defined
- Measured repeatedly
- Recording is assessed for consistency
- Selected for their social significance.

To ensure the DV was of social significance it was decided that the behaviours monitored would be ones that staff reported were having a negative impact on the children's learning or relationships with others or alternatively behaviours that they had identified that if increased would have a positive impact on their learning or relationships.

Definitions of the target behaviours were created from initial discussions with school staff and the TF as to how the child presents within schools and their SEMH needs. Operational definitions were created from this information and were adapted and clarified after the researcher examined the first week of video recordings (see table in Appendix N for definition of each behaviour). One target behaviour that was set for Angus was not included in the research due to there being no incident of this behaviour in any of the video recordings.

The target behaviours (TB1 and TB2) for the children identified were (details of definitions, examples and codings are provided in Appendix N):

Angus:

- TB1 – Time spent on his own and apart from other children
- TB2 – Cooperative play with peers

Malcolm:

- TB1- Intrusion of children's and adults' personal space
- TB2 – Cooperative play with peers

Brian:

- TB1 - Number of words spoken
- TB2 – Cooperative play with peers

3.6.4.4.1.3 Administration and Scoring

Video recordings were planned to be completed three times a week for 10 minutes per child by a school staff member within class focusing on a mixture of both classroom-based activities and free-play activities. However, the number and duration of video recordings varied each week. The researcher had offered to complete some video recordings within the school although this was declined by the teacher. Limitations and issues regarding reliability of these video recordings will be explored in sections 3.8.3.1.1 and 5.2.3.1.

Video recordings were coded by the researcher using the schedules developed from the target behaviours. Due to the variability in length of recordings, percentages were calculated for interval sampled data, and for event sample data the average number of behaviours per minute was calculated. Examples of recording schedules can be found in Appendix O.

The researcher completed intra-observation checks and inter-observation checks of recordings. See section 3.8.3.1.1.1

3.6.4.4.2 DV Children's Behaviour – T-SDQ (Goodman, 1997)

3.6.4.4.2.1 Description

The Teacher Strength and Difficulties Questionnaire (T-SDQ, Goodman 1997) (see Appendix X) is described as a "brief behavioural screening questionnaire that provides balanced coverage of children and young people's behaviours, emotions, and relationships" (Goodman, 1997, p. 581). The T-SDQ consists of:

- Four 'problem' scales (emotional problems, conduct problems, hyperactivity scale and peer problems)
- One 'strength scale (prosocial scale).

There are five descriptions per each scale (e.g. ‘often complains of headaches’) and the teacher is required to rate each description on a 3-point Likert scale as either ‘not true’, ‘somewhat true’ and ‘certainly true’.

3.6.4.4.2.2 Rationale

The SDQ is the most commonly used measure of children’s social and emotional development in the UK (Dockrell, Llaurado, Hurry, & Cowan, 2017). It has been argued to be appropriate in evaluating interventions as a pre- and post-measure (Youth in Mind, 2012) and used in Theraplay research (Francis et al., 2017) and school intervention research (Berry et al., 2016). It is relatively quick to complete in comparison to other measures such as the Child Behaviour Checklist (Boyer, Miller, Connolly, & McIntosh, 2016; Goodman, 1997). It also covers a range of difficulties (both internalising and externalising) as well as recording the child’s potential strengths (Berry et al., 2016; Goodman, 1997).

The measure is reported to have good psychometric properties and a review of 48 studies regarding the reliability and validity of the parent and teacher SDQ used with children aged four to 12-years-old (Stone, Otten, Engels, Vermulst, & Janssens, 2010) concluded internal consistency, test–retest reliability, and inter-rater agreement were satisfactory for the parent and teacher versions. Stone et al., (2010) noted that validity was more difficult to determine from studies as more longitudinal research is needed, however the SDQ was found to have sufficient correlations with other measures of psychopathology.

Only teachers completed the SDQ given the purposes of the study and the children being too young to complete the self-report version.

3.6.4.4.2.3 Administration and Scoring

The T-SDQ was completed by the teacher before the baseline phase began and was scored by hand by the researcher.

3.6.4.4.3 DV Student-Teacher Relationship – STRS (Pianta, 2001)

3.6.4.4.3.1 Description

The Student-Teacher Relationship Scale (STRS, Pianta 2001) (see Appendix Y) was used to measure the DV of student-teacher relationships. The STRS is a questionnaire

designed to assess the teacher's perceptions of their relationship with a student and aimed primarily at children in preschool up to the age of eight-years-old (Pianta, 2001). The questionnaire includes 28 statements (e.g. the child tries to please me) which the teacher is required to score on a Likert scale of 0-5 ranging from 'definitely does not apply' to 'definitely applies'. The STRS can be mapped into four overall areas as described by Pianta (2001):

Conflict:	Degree to which the teacher perceives their relationship with a student to be negative and conflictual. A high score would indicate the teacher perceives the student as angry or unpredictable and likely to feel emotionally drained.
Closeness:	Degree to which the teacher experiences affection, warmth and open communication with a student. Higher scores are indicative of a relationship characterised by warmth and the student uses the teacher as a source of support.
Dependency:	Degree the teacher perceives a student as overly dependent on them. High scores indicate the student reacts strongly to separation from the teacher and requests help when not needed.
Total:	Overall views of the teacher's relationship with the student. Higher scores indicate higher relationship quality (lack of conflict, lower dependency and high closeness scores).

3.6.4.4.3.2 Rationale

The STRS is argued to be useful in evaluating the quality of student-teacher relationships after the implementation of a program or intervention (Pianta, 2001). The measure is quick to complete and is reported to show evidence for concurrent and predictive validity with the manual citing that the measurements have shown correlations between STRS scores and future measures of academic skills and behaviour problems and competencies within the classroom. Test-retest reliability over a four-week interval is reported to have reliability coefficients of Closeness 0.88; Conflict 0.92; Dependence 0.76 and Total 0.89 (Pianta, 2001) suggesting lower reliability for the Dependence scale which is why some researchers use the short

term version of the test which omits this (Giraud, 2003). Reported internal consistency estimates for the scales are as follows; Conflict, 0.92; Closeness, 0.86; Dependence, 0.64 and Total, 0.89 (Pianta, 2001).

Limitations are that it has been standardised using an American population and the measure only examines the teacher's perceptions of the relationship and not the child's perceptions (Brinkworth, McIntyre, Juraschek, & Gehlbach, 2018). An alternative measure was considered. The Teacher-Student Relationship (Brinkworth et al., 2018) which includes both the teacher's and student's perceptions, however this was developed for secondary-aged students and also sampled on an American population. To mitigate some of the limitations of the STRS, semi-structured interviews included a question to explore staff's perceptions of their relationship with the child before and after the intervention.

3.6.4.4.3.3 Administrating and Scoring.

The STRS was completed by the teacher before the baseline phase and scored by hand by the researcher using the STRS manual (Pianta, 2001).

3.6.4.5 Measures for the Qualitative Aspects of the Case Study

3.6.4.5.1 Semi-structured Interviews

As discussed in 3.5.9.1 semi-structured interviews were identified as an appropriate method for gathering data as it enabled the researcher to identify key areas they would like to explore with the interviewee, but offered enough flexibility in adapting the questions to different people and contexts.

Areas to explore in the interview were identified based on the three research questions in section 2.7. An interview schedule was created (see Appendix P).

3.6.4.5.1.1 Administration

Semi-structured interviews were completed with the TF and a class TA separately. Offers to interview other school staff members were declined.

At the TF's request the interview was completed on the telephone at an agreed time convenient to them. A consent form was emailed prior to the interview and they were asked to ensure they were in a private location to help protect confidentiality of information. The researcher also ensured they were in a private setting and they

checked that the TF was happy for the conversation to be recorded. Although telephone interviewing does have advantages in ensuring there is less travel and the information can be gathered more quickly (Mealer & Jacqueline, 2014; Robson & McCartan, 2016) there are limitations in a lack of visual and social cues which means non-verbal responses can be missed (Mealer & Jacqueline, 2014; Robson & McCartan, 2016). The interview with the TA was done in person. Verbal and written consent was gathered, and the interview was completed in a private room at the school at a time that was convenient to the TA.

3.6.4.5.2 Written Records of Theraplay Intervention

Rationale to why written records of the Theraplay Intervention were gathered is provided in section 3.5.9.2. The TF completed a written log developed by the researcher (Appendix M) after each session and these were collected at the end of the intervention phase.

3.6.4.6 Summary of Measures for CS1

Research Question	Method	Measure	Provided by	Time of collection
How are Theraplay interventions implemented within education settings?	Semi-structured interview		TA and TF	After completion of intervention
	Log of Theraplay Intervention		TF	After each Theraplay session
Does Theraplay intervention within an educational setting have an effect on classroom behaviour for male students aged three to eleven-years-old identified with SEMH needs?	Ten-minute video recordings	Interval/ event sample of target behaviour(s)	School staff member	Three times a week during baseline and intervention phases
	Questionnaire	T-SDQ (Goodman, 1997)	Teacher	Before the beginning of baseline and after completion of the intervention
	Semi-structured interview		TA and TF	After completion of intervention
Does Theraplay intervention have an effect on student-teacher relationships for male students aged three to eleven-years-old identified with SEMH needs?	Questionnaire	STRS (Pianta, 2001)	Teacher	Before the beginning of baseline and after completion of the intervention
	Semi-structured interview		TA and TF	After completion of intervention

Table 3-9 Summary of measures for CS1

3.6.5 Case Study Two (CS2)

3.6.5.1 Setting Description

The setting for case study two (CS2) was a nursery which was due to implement Group Theraplay with a select number of children. Eighty-four children were enrolled in the nursery, which was part of a mainstream school within a rural district.

The school had capacity for up to 578 students aged two to eleven-years-old. In 2017-2018, 27.6% of students were in receipt of premium funding. The nursery is run by two part-time managers and there were up to 10 members of staff. Children attended morning sessions, afternoon sessions or both. One child had an EHC Plan and 40% of students were from ethnic minority backgrounds. The school had recently moved to trusts and therefore did not have an Ofsted rating.

3.6.5.2 CS2 Participants

Four participants were identified by the two nursery managers (NMs) and are described in Table 3-10. Pseudonyms are used. Each child had their own Key Worker (KW) in the nursery who was responsible for monitoring the child's progress and a link person for contact with parents.

Child	Age (at start of baseline phase)	Ethnicity	Reported SEMH difficulties	Other Complexities Reported
David	Three-years-three-months-old	White British	• Difficulties in regulating and managing emotions • Reluctance to join in group activities • Behaviours include crying and screaming • Struggles to follow instructions	• Parents and school staff shared that the family were experiencing several difficult events at home and wondered if this was impacting his behaviour
Nick	Three-years-six-months-old	White Polish/ Portuguese	• Difficulties in playing with other children and struggles to share and turn take • Arrives at nursery sometimes upset • Reluctance to join in group activities and will walk around the room	• English is an additional language but staff are also concerned he may have receptive and expressive language difficulties
Roger	Four-years-eleven-months-old	White British	• Few friendships developed in nursery • Often engages in solitary play • Struggles to follow instructions • Can be clumsy in his movements and mannerisms	• Reported to have behavioural difficulties at home
Richard	Four-years-four-months-old	White Polish	• Little verbal communication towards peers since being ill in December 2018. • Does not play with other children	• English is an additional language

Table 3-10 Description of Participants for CS2

3.6.5.3 Theraplay Intervention

Intervention was weekly Group Theraplay (GT) sessions with up to six children and facilitated by the Nursery Manager (NM) and the Key Worker (KW) for Richard. The NM was trained in both Level One and Group Theraplay. All children were already receiving 'Sunshine Circles' as a whole nursery intervention once a week, however, some children had been identified by the NM as potentially benefitting from further support. The aims of the GT were reported to be to support children's confidence, interactions, engagement, communication and social skills.

3.6.5.4 Procedure

Overview of Timeline for CS2

January 2019	**February 2019 – March 2019**		**March 27th 2019 – May 2019**	**May 2019**
Initial Phase - Consent - Pre-measures	**Baseline Phase**	**Holidays** **(Two weeks)**	**Intervention Phase**	**Final Phase** - Post measures - Interviews with staff and Theraplay Facilitator - Debrief

Table 3-11 Overview of timeline for CS2

3.6.5.4.1 Consent

Once consent from University of Nottingham ethics committee was approved (Appendix K) consent was asked from the NM (who was also one of the TF) for the research to be completed in the nursery (Appendix T). Parents of the four children identified by the NM by letter (Appendix U) with the researcher also offering to meet them in person or discuss the research by telephone. Three parents met with the researcher to discuss the research. KWs and NM to complete post-intervention interviews (Appendix L).

Parents were informed that if they did not want their child to take part in the research then this would not affect the child's participation in the Theraplay activities. Due to the age of the children their consent was not sought, however staff and parents were informed that if they had any concerns with regards to the child's participation, the children could be withdrawn from the research at any time and this would not affect their participation in the Theraplay.

3.6.5.4.2 Initial Phase

Facilitated by the NM/TF, discussions were completed with the four children's Key Workers (KW) to help identify individual target behaviours to monitor for the children.

KWs also completed the pre-questionnaire (see sections 3.6.5.5.2 and 3.6.5.5.3).

3.6.5.4.3 Baseline

After discussions with KWs regarding target behaviours a Direct Behaviour Rating scale (DBR, Chafouleas, 2011) (see section 3.6.5.5.1 for further detail) was developed for each child. This was practiced with each child's KW and any clarifications or amendments were made. KWs were asked to complete the DBR scale three times a week. The NM delayed the interventions resulting in a longer baseline than the two weeks initially planned. For one child, Roger, there was a delay in getting written parental consent and therefore less data points were collected.

3.6.5.4.4 Intervention

During the intervention phase, each child took part in the GT once a week. The NM was asked to complete a log after each session (Appendix M). KWs continued to complete the DBRs regularly.

3.6.5.4.5 Final Phase

Semi-structured interviews with the NM and the four KWs were completed separately. Post-questionnaires were completed by the KWs. Staff and parents were debriefed by letter (Appendices Q and S) with an opportunity to contact the researcher if they required further information.

3.6.5.5 Measures for the Quantitative Aspects of the Case Study

3.6.5.5.1 DV Children's Behaviour - Observations

The repeated measures of the SCED were observations of children within the educational setting.

Rationale for observations of children's behaviour remains the same as CS1 (see section 3.6.4.4.1.1), however the observational measure was changed to meet the setting's needs. When the methodology was discussed with the NM, the researcher was informed that video recordings would not be possible. Therefore, an alternative method was agreed with the NM to help ensure observations could be completed within the settings.

Direct Behaviour Rating (DBR) Scales refer to a category of assessments that aim to combine the advantages of systematic observations with the efficiency of rating scales (Chafouleas, 2011; Miller, Crovello, & Swenson, 2017). DBR scales have been recommended to be used as a way of monitoring student responses to interventions (Miller et al., 2017) and useful when due to issues such as personnel, time and training, systematic observations are not feasible (Chafouleas, 2011). DBR scales are argued to be easy to implement, meaning observations can be completed by school staff members and an external observer is not required which could impact the children's behaviours (Riley-Tillman, Chafouleas, Sassu, Chanese, & Glazer, 2008).

Within the literature there are a range of DBR scales cited with some variability to which behaviours are observed (Miller et al., 2017) however, there appears to be consistency in its general use. Using the DBR, the child is observed for a specified time period and then the proportion of time the child was engaged in a specified behaviour is rated on a scale immediately after that observation period (Miller et al., 2017). The time period is flexible and can vary dependent on the context (Chafouleas, 2011). It is generally recommended that the observations are completed daily (Miller et al., 2017). The rating scale is typically a ten-point scale which has been developed from a literature review and previous research (Chafouleas, 2011). Although there are limitations that the DBR may not provide as much information as an observational coding scheme (such as one using time sampling methods) there is some research to

suggest a moderate-to-high correlation between systematic observations and the DBR (Riley-Tillman et al., 2008)

Definitions of the target behaviours were created from initial discussions with KWs as to how the child presents within the setting and their needs. An operational definition was then created from this information which was adapted and clarified after the researcher observed the child with the key worker in the first week (see Appendix V). Staff were given both verbal and written instructions on how to use the measure and a personalised DBR scale was created for each child for the key worker to complete (see Appendix W for an example). The researcher was concerned about the ethical implications of asking staff to monitor 'negative behaviours' and therefore the focus was on behaviours that if increased could have a positive impact on the children's learning or relationships.

For one child David, it was agreed after discussions with the KW that an additional target behaviour would be monitored through an event sample observation method, which was the number of instructions the child followed. Percentage of the number of instructions was then calculated.

3.6.5.5.1.1.1 Administration and Scoring

Staff were asked to complete the DBR scale three times a week. Inter-observation checks were completed by the researcher. See section 3.8.3.1.1.1.

The target behaviours (TB1 and TB2) for the children identified were (details of definitions and examples are provided in Appendix V):

David:

- TB1 – Sitting appropriately at group times
- TB2 – Following verbal instructions from staff members

Nick:

- TB1- Sitting appropriately at group times

Roger:

- TB1 – Playing appropriately with peers

Richard:

- TB1 – Verbal communication with peers

3.6.5.5.2 DV Children's Behaviour T-SDQ

Rationale for T-SDQ is the same as CS1. Due to the age of the children a version of the questionnaire designed for ages two to four-years-old was used. There are fewer studies examining the psychometric properties of the T-SDQ for nursery-aged children in comparison to primary-aged children. One study concluded that the T-SDQ used with children aged three to six was found to be a fairly reliable and valid measure (Downs, Strand, Heinrichs, & Cerna, 2012), however, the population sample was on American and German children and did not include children aged two-years-old. Each KW completed the measure for their focus child pre- and post-intervention and the scores were calculated by the researcher by hand.

3.6.5.5.3 Quantitative Measures for Student-Teacher Relationship

Rationale and analysis to use the STRS is the same as CS1 (see 3.6.4.4.3). KWs completed the STRS pre- and post-intervention. It was scored by hand by the researcher using the STRS manual (Pianta, 2001).

3.6.5.6 Measures for the Qualitative Aspects of the Case Study

3.6.5.6.1 Semi-structured Interviews

Rationale and analysis of the semi-structured interviews is the same as CS1 (see 3.5.9.1and 3.6.4.5.1). Interviews were completed with the NM and KW who facilitated the Theraplay groups and with each KW separately at nursery in a private room.

3.6.5.6.2 Written Records of Theraplay Intervention

Rationale is provided in section 3.5.9.2. The NM completed a written record developed by the researcher (Appendix M) after each session and these were collected at the end of data collection.

3.6.5.7 Summary of Measures for CS2

Research Question	Method	Measure	Provided by	Time of collection
How are Theraplay interventions implemented within education settings?	Semi-structured interview		NM and KWs	After completion of intervention
	Log of Theraplay Intervention		NM	After each Theraplay session
Does Theraplay intervention within an educational setting have an effect on classroom behaviour for male students aged three to eleven-years-old identified with SEMH needs?	Observation and ratings	DBR scale of target behaviour	KWs	Three times a week during baseline and intervention phases
	Questionnaire	T-SDQ (Goodman, 1997)	KWs	Beginning of baseline and after the completion of the intervention
	Semi-structured interview		NM and KWs	After completion of intervention
Does Theraplay intervention have an effect on student-teacher relationships for male students aged three to eleven-years-old identified with SEMH needs?	Questionnaire	STRS (Pianta, 2001)	KWs	Before the beginning of baseline and one after the completion of the intervention
	Semi-structured interview		NM and KWs	After completion of intervention

Table 3-12 Summary of measures for Case Study Two

3.7 Ethical Considerations

Ethical considerations were made in line with the British Psychological Society (2014) ethical guidance and University of Nottingham Code of Research Conduct and Research Ethics (2016). Approval from the University of Ethics Committee was obtained on 13th June 2018 (Appendix F). Approval for amendments to made for the study (post-intervention interviews, increasing the age range of participants, and use of DBR), was obtained from the Chair of the Ethics Committee on 29th January 2019 (Appendix K).

Key ethical considerations with regards to the current research were considered as described in the table below.

Ethical Consideration	Action Taken
Valid Consent	• Education settings were responsible for the implementation of the Theraplay interventions and therefore consent for children to take part in the interventions were completed through their usual procedures. • Valid consent for the research was sought from senior management of the education settings and the Theraplay Facilitator who were provided with an information sheet detailing the purpose and methods of the study (see Appendix G and T). • Written consent was sought from parents of the children identified for research for measures to be taken (see Appendix H and U). Opportunities to meet with the researcher were provided to discuss research were offered by being able to meet. • Consent was sought from the children in CS1 by the researcher and staff member talking to them about the research. Information about the research was also provided

	visually by using a symbol writing software (SymWriter 2) that is familiar to the school (see Appendix R). • For CS1 written consent was sought from staff and parents of the other children within the class for incidental filming (see Appendix J). • The researcher met with school staff to discuss the purposes of the research and to answer any questions and the researcher's contact details was also provided. The researcher kept in regular contact with the school staff through email and face-to-face communication. • For CS2 due to the children's age, consent was only sought from their parents (see Appendix U). • For another school, two children did not provide valid consent and therefore their wishes were respected, and no research was completed with them. I understand from school staff that this did not affect their participation in the planned Theraplay intervention.
Right to Withdraw	• All children and relevant adults were informed of their right to withdraw, and within the letters they were reminded that this can be done at any time and without explanation. • Parents were informed that withdrawing their child from the research meant their child could still continue to take part in the Theraplay intervention. Withdrawal from the study meant any data collected about the child for research purposes was destroyed and not used by the researcher
Confidentiality	• All information was kept anonymous by children being given numerical identifiers and later pseudonyms • Video recordings and spreadsheets were transferred and encrypted on a password protected computer.

	• Paper copies of information were kept in a secure location.
Protection from Potential Harm	• Responsibility of the implementation of the Theraplay intervention lied with the school and the Theraplay Facilitator. Schools had their usual duty of care to ensure the child is safeguarded against the risk of harm from any interventions provided within their setting by following their usual health and safety and safeguarding procedures. • The researcher set criteria of the person implementing the intervention must have been trained in at least Level One Theraplay or Group Theraplay and having an enhanced Disclosure Barring Service to ensure they have a good understanding of the approach and to help protect the children's wellbeing. • For one school that had expressed interest in the research, the Theraplay intervention had already begun and therefore it was agreed that it would not be appropriate to stop this intervention to collect a baseline and therefore no research was completed with this school. • It was agreed with schools that if the researcher was concerned for the child's or someone else's safety then this would have been discussed with an identified adult within school who has responsibility for the intervention (such as the Headteacher) and with the researcher's supervisor within the Educational Psychology service. • To reduce the risk of participants becoming distressed by being observed, consent was sought from children before the research (of those developmentally able) and staff members completed the observations (rather than the researcher). Staff were informed to stop observations/video recording if they were concerned that this was causing stress to the child.

	There were regular discussions between the researcher and school staff members.
Debrief	A written debrief to inform parents and school staff that data collection for the research had been completed was sent. The researcher's contact details were included, and parents and staff were invited to contact the researcher to discuss the findings further.

Table 3-13 Table to Summarise Ethical Considerations for Research

3.8 Validity and Reliability Considerations

3.8.1 Internal Validity

Internal validity refers to the extent that the researcher can be confident that the changes observed are due to the intervention and not some other extraneous variables (Mertens, 2015; Robson & McCartan, 2016). It has already been acknowledged that the use of an AB SCED design is weak, does not have adequate experimental control and is open to validity issues such as history effects (Horner et al., 2005; Robson & McCartan, 2016). Below is a summary of threats to internal validity and action taken to minimise them.

Threats to Validity	**Action Taken to Minimise Threat**
History	• Staff were asked to note changes in circumstances which may impact the results. • The research was two case studies completed in two different settings and in different locations. • The AB design means not all aspects of this threat can be controlled for and therefore is a limitation of the study
Testing	• This threat could not be completely controlled due to staff's involvement in pre-tests and repeated measures which may mean they were more 'tuned in' to the behaviours being measured.
Instrumentation	• CS1 - Coding of the observations were completed by the same person (the researcher) and intra- and inter-observer checks were completed. • CS2 - Observations and ratings were completed by the same person who received training by the researcher as to how to use the measure. Inter-observer checks were completed for some observations. The researcher met with the KWs regularly to discuss how they were using the measure.

Mortality	• One child did drop out in CS1 due to being excluded and therefore this is a possible limitation. However, this led to a recruitment of more participants in another setting being identified that implemented the intervention.
Maturation	• Short timeline and multiple cases completed in different settings and times reduces this threat. • In both case studies the baseline enabled at least five datapoints to be collected for all but one participant.
Regression to the mean	• Pre- and post-data is open to this threat and therefore considered a limitation. • Repeated measures were used for the SCED which enables the researcher to identify regression
Hawthorne Effect	• This was a threat that could not be controlled for as it would have been unethical for the participants to be blinded to the purpose of the research and therefore a limitation

Table 3-14 Table Summarising Threats to Validity

3.8.2 External Validity

External validity refers to how easily findings can be generalised to another situation (Mertens, 2015). Generalising findings to wider populations or settings for SCEDs and case studies can be challenging given the typically low number of participants (Cakiroglu, 2012; Horner et al., 2005; Robson & McCartan, 2016). Within SCED research having operational descriptions of participants and contexts, in addition to replication of studies, can help to improve external validity issues (Horner et al., 2005).

While the researcher acknowledges the limitations of generalising the research to a wider population, the design was still considered to be appropriate given the very limited amount of research in this area. Furthermore, this research did make some efforts to examine the intervention use with two different populations and contexts.

In addition, Yin (2018) notes in case study research, generalisations should be made from the case study rather than the case(s) and there are differences between statistical generalisations, in which the findings from a sample are claimed to apply to a larger population, and analytic generalisation, in which findings are generalised to other similar theoretical concepts or principles. Yin (2018) argues researchers using case studies should try to aim towards analytical generalisations although acknowledges that they will be making an argumentative claim which they will need to justify and explain.

3.8.3 Reliability

Robson and McCartan (2016) define reliability as the "stability or consistency with which we measure something" (p.105).

3.8.3.1.1 Reliability Considerations with Regards to Observations

Robson and McCartan (2016) describe several potential threats with regards to structured observations. These and the measures taken by the researcher to reduce these threats are described in the table below (see Table 3-15).

Threats	Measures Taken to Reduce Threat
Expectancy Effects	• Threat was not fully removed as both the researcher and education staff were aware of when the Theraplay intervention had begun and therefore could not be 'blind'. Furthermore, both education settings were involved in implementing the intervention so there could be potential biases in wanting the intervention to be a success which could affect times of observations and ratings. • For video recordings, the inter-observer judges were not informed of whether the video recordings were completed before or during the Theraplay intervention.
Observer Drift	• Operational definitions of the target behaviour were created. Intra- (for CS1) and inter-observer checks were completed.

Reactivity	• CS1- School staff members completed the video recordings instead of the researcher. The baseline was also longer than initially planned and therefore increased the chance of the children/staff become more desensitised to the recordings. • CS2 - Measure was subtle and observations were a typical part of KW's work with the children. However, when the researcher was present it is possible that this threat was not fully removed.

Table 3-15 Description of Potential Threats to Reliability of Observations and Actions Taken to Reduce these Threats

3.8.3.1.1.1 Intra-observer and Inter-Observer Reliability of Observations

As noted in Table 3-15 intra-observer consistency and inter-observer agreement were used to help address some of the potential threats to the reliability of the observations. Intra-observer reliability measures the consistency of data should a single observer observe the same behaviour repeatedly (Hintze, 2005). Inter-observer reliability measures the level of agreement between two or more observers when measuring the same behaviour (Hintze, 2005; Robson & McCartan, 2016).

Due to the use of video recordings, intra-observer consistency could be calculated for CS1 to ensure the researcher was using the measure consistently. There are a range of different methods to calculate interobserver agreement and selection of methods will be dependent on the type of data collected (Hallgren, 2012; Hintze, 2005). Percentage of agreement has been criticised for overestimating the level of agreement as it does not correct for agreements which would be expected by chance (Hallgren, 2012). Therefore, Cohen's Kappa was used for calculating inter-observer and intra-observer agreement for most of the video recording data due to the nominal nature of the data (Hallgren, 2012). However, for observational data that used event sampling and for the DBR data, intraclass coefficient was selected, as this is better suited for this type of data (Hallgren, 2012). Examples of inter-reliability calculations calculated in SPSS be found in Appendix NN.

3.8.3.1.2 Reliability of Pre- and Post-Questionnaires

Pre- and post-measures used were published and details regarding their psychometric properties can be found in sections 3.6.4.4.2 and 3.6.4.4.3. Robson and

McCartan (2016) describe participant error and bias as potential sources of unreliability. Given that the education staff were not blind to the purposes of the research these threats are difficult to control for. However, the pre-post data is used to supplement the other sources of data.

3.8.4 Qualitative Section of the Study

Teddlie and Tashakkori (2009) summarise four criteria that should be considered in relation to qualitative research:

Criteria	Steps taken to address criteria
Credibility	• Consideration of negative cases • Collection of data from multiple sources (triangulation) • Discussion of data with research supervisor and being open about possible biases • Involvement in the settings for a minimum of five months • Member checking was considered however due to time availability it was not possible to implement
Transferability	• Detailed descriptions of the education settings, intervention and participants
Dependability	• Research processes are described and reported in detail • Reflexive journal and written communication to tutors was used to record methodological decisions
Confirmability	• Qualitative data can be tracked to its source • Researchers interpretation of data is explicit • Discussion of data with peer and research supervisor
Sources used to inform table: Mertens, (2015); Shenton (2004); Teddlie & Tashakkori, (2009)	

Table 3-16 Qualitative Criteria Considered

4 Results

Considerations of analysis undertaken will be discussed. Findings for each case study will then be presented in turn.

4.1 Analysis of Data

4.1.1 Quantitative Data Analysis

4.1.1.1 Pre- and Post-Questionnaires

Reliable Change Index (RCI) and Crossing Clinical Threshold (CCT) are two methods which can review changes at an individual level (Wolpert et al., 2015).

RCI provides an indication as to whether any changes observed could be due to measurement error or unreliability (Evans, 1998a). The RCI used was the Jacobson et al (1984) calculation as described in Evans, Margison, and Barkham, (1998). The online reliability change calculator enables a Reliable Change Criterion (RCC) (Evans, 1998b) to be calculated, which means that change - differences in pre-and post-scores - either up or down greater than the RCC can be considered to be reliable.

For the T-SDQ, data used to calculate the RCI were internal consistency (alpha) (Stone et al., 2010) and standard deviation from the UK population (Youth in Mind, 2001). For the STRS (Pianta, 2001) information was retrieved from the manual. Standard norms were not available for the UK population, however, given the limited methods of analysis of pre- and post-data the researcher decided to still calculate the RCI for STRS.

CCT measures whether an individual has moved from a category of having a clinically significant problem to not having one (Wolpert et al., 2015). Although it is subjective (Wolpert et al., 2015) it can give some insight into the degree of change between pre- and post-scores.

Categories that are used for CCT are:

- Recovered/Improvement (move from clinical to non-clinical)
- No Change (remain either clinical or non-clinical)
- Deterioration (move from non-clinical to clinical)

For T-SDQ, thresholds used were for the categorisation of 'High' and 'Very High' (representing 10% of the population) (Youth in Mind, 2001). For STRS, Pianta (2001) describes that percentiles at or above 75 for conflict and dependency scores and percentiles at or below 25 for closeness and total scores can indicate a high level of concern and therefore these were used as the 'clinical threshold' for STRS data.

4.1.1.2 SCED Data

4.1.1.2.1 Visual Analysis

Visual analysis is arguably the preferred evaluative method of SCED data (Kazdin, 2017; Kratochwill et al., 2010; Lane & Gast, 2014).Visual analysis enables conclusions regarding impact of the intervention to be made relatively quickly and these are based on educational/clinical significance rather than statistical significance (McCormick, 1995).

Researchers have defined visual analysis criteria to help determine whether there are any changes, as summarised in Table 4-1. Both within-phase and between-phase visual analysis was completed (Kratochwill et al., 2010; Lane & Gast, 2014).

Characteristic	Considerations
Level	What is the mean score of data in each phase? Change in mean scores of each phase may indicate a change.
Trend	What gradient is the best-fitting straight for the data within each phase? Is the data increasing or decreasing over time in each phase? If the trend is decreasing in the baseline and then increasing in the intervention phase this may indicate change.
Variability	How stable is the data in each phase? If there is large variability within each phase, then it may be more difficult to conclude if there has been any change
Immediacy of Effect	Is there noticeable change in level between the last data points of one phase and the first data points of the next phase? If there is an immediate change noted than it would be supportive of arguments that the change was due to IV
Overlap	How much does data from one phase overlap with data in the next phase? If there little overlap of data between the phases, then this may strengthen arguments that there has been a change.
Sources used to inform information in the table: (Kazdin, 2017; Kratochwill et al., 2010; Lane & Gast, 2014)	

Table 4-1 Visual Analysis Considerations

4.1.1.2.2 Limitations

Visual analysis is subjective and potentially open to personal biases (Kazdin, 2018). There can be low inter-rater reliability agreements between judges on visual decisions (Brossart, Parker, Olson, & Mahadevan, 2006) and a risk of Type 1 (false positive) errors (Brossart et al., 2006). Visual analysis is also not efficient at detecting small changes which may still have a big impact for that individual (Kazdin, 2017). Furthermore, continuous data is at risk of serial dependence in which data points are related to each other (Kazdin, 2017). Therefore, patterns within the data, such as cycles), are not visible on the graph (Kazdin, 2017).

4.1.1.2.3 Statistical Analysis of SCED Data

Given these limitations, statistical analysis can strengthen credibility and reliability of the findings. (Kazdin, 2017, 2018; Vannest & Ninci, 2015). Statistical analysis of SCED data is useful when a stable baseline has not been established (Brossart et al., 2006; Hersen & Barlow, 1976), when the researcher is unsure as to what impact the intervention may have (Brossart et al., 2006; Hersen & Barlow, 1976), or when clear results need to be shared with other stakeholders (Brossart et al., 2006). Tests used to measure statistical significance for group designs are not appropriate due to issues of serial dependence and auto-correlation which can lead to biased results (Kazdin, 2017, 2018). Instead, time series analysis and effect sizes can be used (Brossart et al., 2006; Kazdin, 2017, 2018; Manolov & Moeyaert, 2017; Vannest & Ninci, 2015). Time series analysis was rejected because it requires a large number of data points to be implemented (Kazdin, 2017, 2018). Therefore, different measures for effect sizes and the strengths and limitations were considered more closely (see Appendix AA for summary).

Lane and Gast (2014) advise multiple methods should be used to analyse SCED data and Brossart et al. (2006) suggest several statistical tests should be used and compared to the visual analysis. Therefore, analysis of SCED data included:

- Visual analysis of data following guidance from Lane and Gast (2014)
- Effect size calculation of percentages of overlapping and non-overlapping data.

- Effect size calculations using Tau-U (Parker, Vannest, Davis, & Sauber, 2011) based on the number of strengths it has in comparison to other effect size analysis (see Appendix AA).

4.1.2 Analysis Considerations of Qualitative Data

Thematic analysis is a method used to analysis qualitative data which aims to find "repeated patterns of meaning" (p. 86, Braun & Clarke, 2006). It was selected because it is a flexible approach which can be used within different theoretical frameworks and is accessible for researchers who are less familiar with qualitative methods (Braun & Clarke, 2006). It is accepted limitations are that it can be difficult for the researcher to determine what to focus on within their data given its flexibility (Robson & McCartan, 2016).

Two interviews were gathered for CS1 and five for CS2. The CS1 and CS2 data was each analysed separately.

Braun and Clarke (2006) argue there are several pitfalls researchers can fall into such as using the interview questions as themes for the data, meaning no analysis has taken place. They, therefore, describe six phases of analysis that should be followed in a recursive manner over time, which is described in Table 4-2. See Appendix BB for copies of transcripts and CC for example of analysis for one interview data.

Themes	What the researcher did
Familiarising with the data	Recordings were transcribed using software (transcribe.wreally.com) to slow down the rate of the recordings to produce an orthographic transcript using guidance from Braun & Clarke (2013). Interview data was read and re-read. Relevant written data from the Theraplay logs completed by the TFs was included (see Appendix BB for interview transcripts).
Generating initial codes	Researcher coded interesting features of the data based on the data set. Initially an inductive approach was undertaken to help provide some rich information that may not link in with the research questions to avoid the pitfall of using the data collection questions as themes. However, throughout the coding the researcher recognised that their pre-existing knowledge about Theraplay is likely to have influenced the analysis.
Searching for themes	Codes were grouped into different candidate themes and subthemes (see Appendix CC for example of analysis). This included themes that may be not related to the research question. The themes identified for this research was at a surface level (semantic). Data was discussed with peers.
Reviewing themes	Themes and coded extracts were reviewed and rearranged. The interviews were re-read to ensure that the themes made sense and to check whether any coding of data has been missed which would fit into the themes.
Defining and naming themes	Themes were named and defined.

Table 4-2 Description of Qualitative Analysis Process for CS1 and CS2

4.1.3 Summary of Analysis used in this Research

Data within the Research	Analysis Used
Pre- and Post-Questionnaires	RCC and CCT
SCED data	• Visual Analysis • Tau-U, percentage of overlapping and percentage of non-overlapping data effect size calculations • Inter-rater reliability checks for graphs
Interview data and written information from Theraplay logs	Thematic analysis for each case study using guidance from Braun & Clarke (2006, 2013)

Table 4-3 Summary of Analysis Used Within this Research

4.2 CS1 Results

4.2.1 CS1 - Research Question One (RQ1) Results

Findings from the qualitative data (interview with the Theraplay Facilitator and school staff member) are presented to answer research question one (RQ1). Three themes were developed from the thematic analysis of the data:

1. Implementation of Theraplay Interventions
2. Facilitating factors
3. Barriers and challenges

A thematic map of each subtheme is presented, followed by an overall summary. Data extracts related to each theme are presented in the appendices EE and FF.

The TF completed logs of all the Theraplay sessions. A table of the Theraplay activities completed are presented in Appendix DD.

4.2.1.1 CS1 - Implementation of Theraplay Intervention

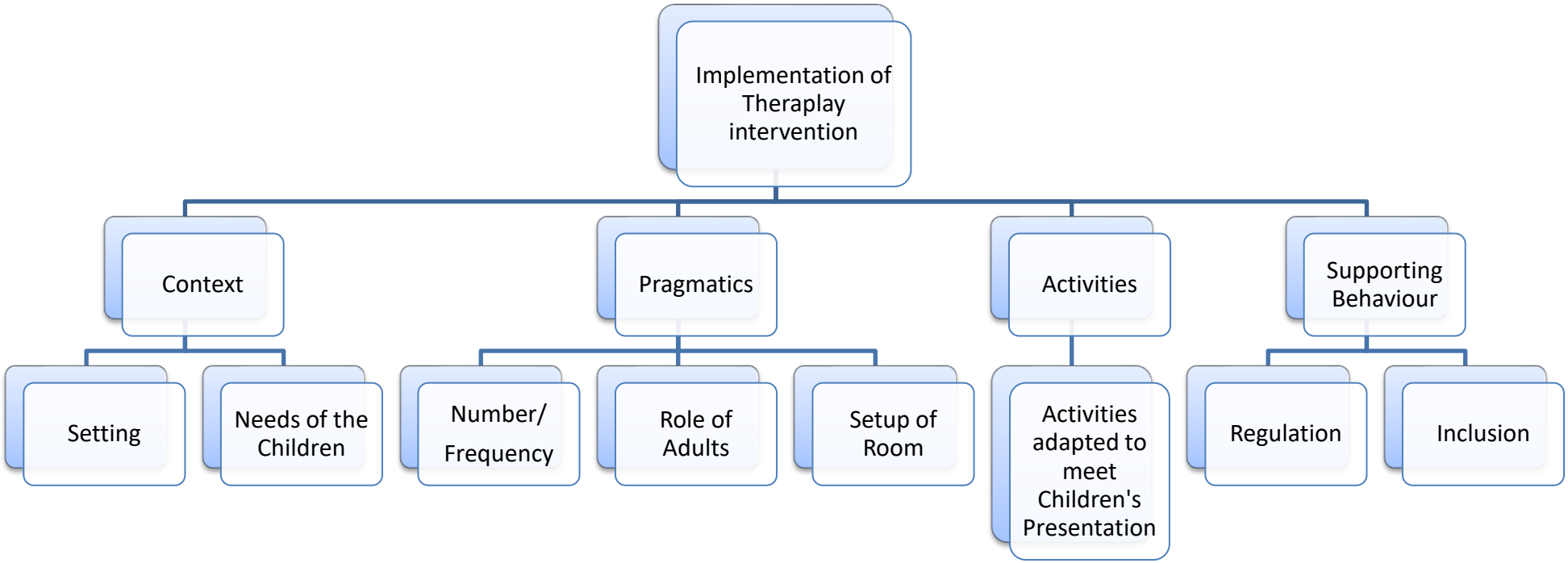


Figure 4-1 CS1-Thematic map of Implementation of Theraplay Intervention

4.2.1.2 CS1 - Facilitating Factors

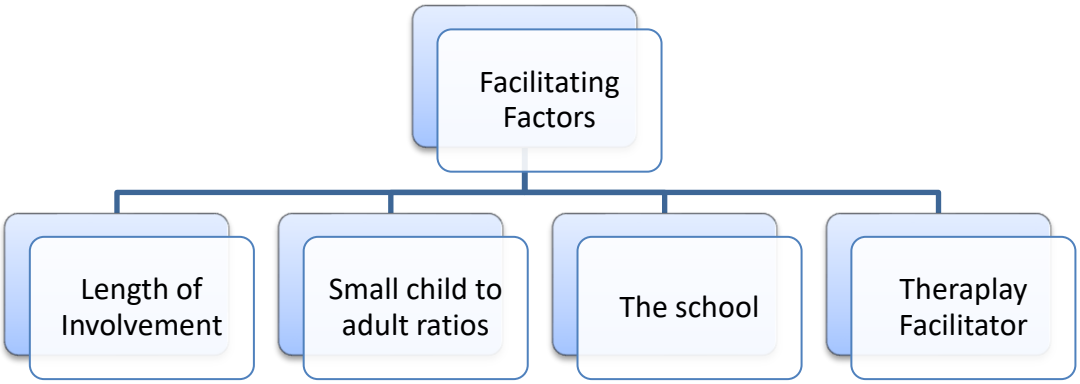


Figure 4-2 CS1 -Thematic map of Facilitating Factors

4.2.1.3 CS1 - Challenges and Barriers in Implementation

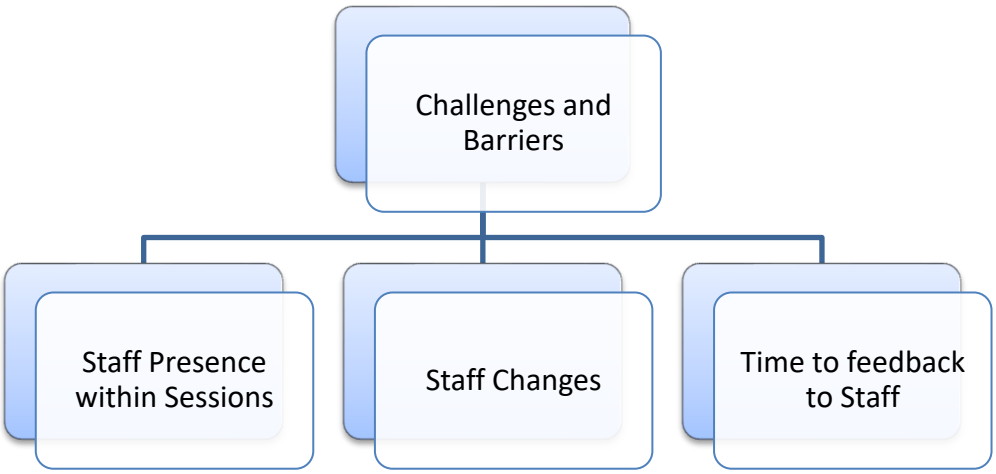


Figure 4-3 CS1 - Thematic Map of the Challenges and Barriers

4.2.1.4 CS1 - RQ1 Results

Six 'Sunshine Circles' sessions were completed. Sessions were reported to be weekly and at the same time in the morning. Duration of sessions was usually 20-30 minutes, although sometimes longer if the children were engaging with the activities. Sessions included a welcome and goodbye song, check-up time and a snack and drink. There was evidence of there being a mixture of activities from the four Theraplay dimensions and the children were reported to favour the exciting and physical games.

Findings indicate context of the setting as a specialist school and a nurture class impacted on how the sessions were completed with variable attendance of school staff and children. Needs of the children also appeared to be an important factor in the completion of the sessions, with sessions being adapted to meet their needs such as trying to include children even if they did not sit in the 'Sunshine Circle', changing activities depending on how they presented that day, or using activities to help regulate their behaviour rather than traditional behavioural methods such as warnings or consequences.

Facilitating factors included the long length of involvement. The setting was reported to be important in allowing smaller child-to-adult ratios and support from Senior Management team, with staff having an understanding of attachment. The skills of the TF and her role within the school was highlighted.

Challenges/barriers included availability of school staff for the sessions and changes to the staffing structure. Time to feedback to staff, although identified by the TF as being important in helping staff to understand the children's behaviour, was not possible for this group.

4.2.2 CS1 – RQ2 and RQ3 Results

Findings from the qualitative data are firstly presented to answer research questions two and three (RQ2 and RQ3). CS1 participant data is then presented.

4.2.2.1 Outcomes from Thematic Analysis

Findings from the thematic analysis led to three subthemes being identified; outcomes within the sessions; outcomes outside of the sessions; and perceptions of the 'Sunshine Circle' group. A thematic map is presented, followed by a summary. Data extracts for each subtheme is detailed in Appendix FF.

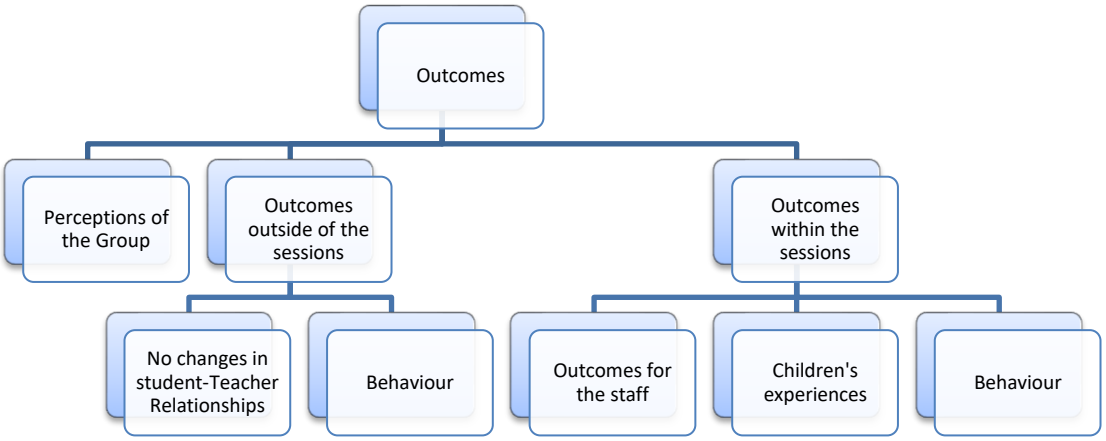


Figure 4-4 RQ2 and RQ3 Thematic Map

Findings suggest that while the group was perceived to be positive and valuable for the children, there were no observed changes for the relationship between students and teaching staff outside of the sessions. There also appeared to be a difference of opinion regarding behaviour, with the TF reporting Angus had been observed playing with children a little more outside of sessions, although the TA said the children's behaviour was "much the same".

Subtheme for 'outcomes within the sessions' suggest that children were believed to enjoy the activities, although their participation was variable, with some anticipating the start of the groups and others not joining in. The TF reported it provided staff an

opportunity to see the children and have fun, although this was not reported by the TA.

4.2.2.2 CS1 - Participant Data

Findings for RQ2 and RQ3 for the three CS1 participants are presented individually.

In all tables for participants, shaded scores indicate high thresholds as described in section 4.1.1.1 regarding CCT categories. Dashed lines on the SCED graphs indicate missing data.

4.2.2.3 CS1 – Angus

Angus was present during all 'Sunshine Circle' sessions and took part in some of the activities although at a distance from the other children and would not come into the circle in the middle of the room.

4.2.2.3.1 RQ2 Results

4.2.2.3.1.1 T-SDQ Results

Table 4-4 summarises pre and post T-SDQ scores for Angus.

SDQ Category	Pre	Post	Difference	Reliable Change?	CCT Category
Total	11	11	0	No	No change
Emotional	0	1	+1	No	No change
Conduct	0	0	0	No	No change
Hyperactivity	6	4	-2	No	No change
Peer Problems	5	5	0	No	No change
Prosocial	2	1	-1	No	No change
Externalising	6	4	-2	N/A	N/A
Internalising	5	6	+1	N/A	N/A

Table 4-4 Angus - Pre and Post T-SDQ Scores - Angus

4.2.2.3.1.2 Repeated Measures Results

Target behaviours for the repeated measures were:

TB1 - Time on his own within the classroom

TB2 - Cooperative Play with others

Seven video recordings were completed for TB1 and seven for TB2. Length of time Angus was visible in the recordings ranged from 2:10 minutes to 10 minutes with average time being 6:44 minutes. Limitations of this are explored in section 5.2.3.1. Due to this variability, percentage of intervals of time he was observed showing the target behaviours was calculated.

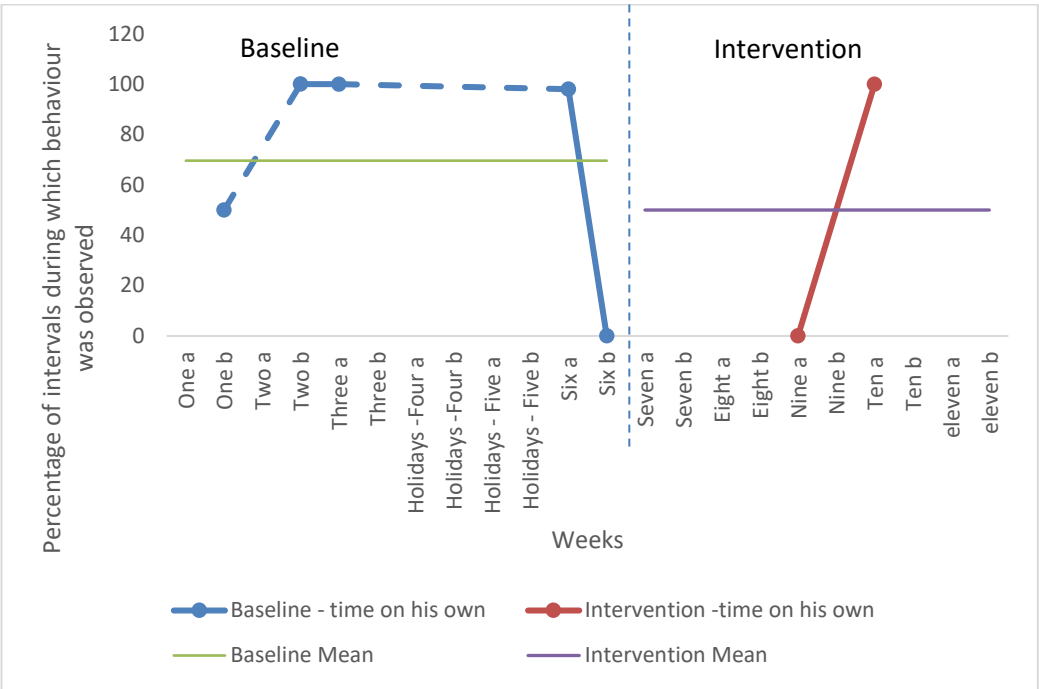
4.2.2.3.1.2.1 Inter- and Intra-Observer Reliability Findings

Inter- and intra-observer reliability findings for video recording data are summarised in Table 4-5.

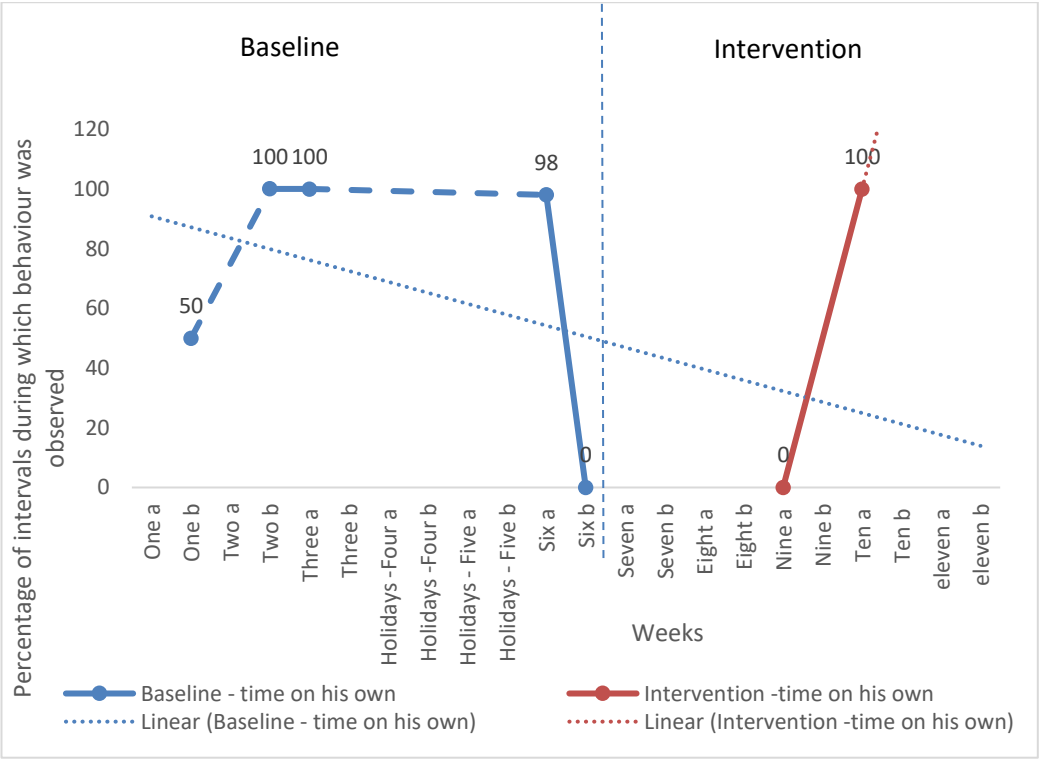
	Inter-Observer Reliability Agreement		Intra-Observer Reliability Agreement	
	Percentage of Videos Observed	Kappa Cohen's Agreement	Percentage of Videos Observed	Kappa Cohen's Agreement
TB1	10%	0.867 (p <.001)	42.86%	0.893 (p <.001)
TB2	10%	0.955 (p <.001)	42.86	0.885 (p <.001)

Table 4-5 Inter- and Intra-Observer Reliability Findings -Angus

4.2.2.3.1.2.2 TB1 Analysis (decrease indicates improvement)



Graph 4-1 Percentage of intervals for TB1 across baseline and intervention phases with means



Graph 4-2 Percentage of intervals for TB1 across baseline and intervention phases with trendlines

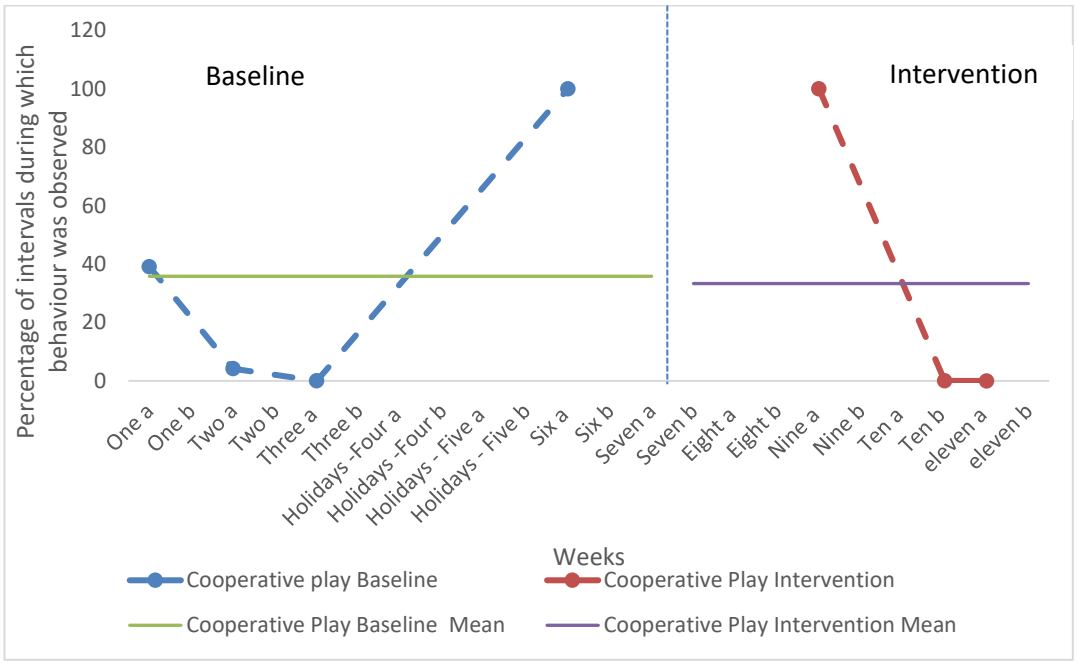
Level	**Mean Level Change**: -16, improving **Median Level Change**: -48, improving **Relative Level Change**: -66, improving
Immediacy of effect	**Absolute Level Change:** There was no difference in values between baseline (0) and intervention (0)
Slope	Baseline had a slight decreasing trend (improving) Intervention had an increasing trend (deteriorating)
Overlap	There was a large overlap of data between the intervention and baseline phase **Percentage of data points overlapping (POD)**: 100% **Percentage of data points non-overlapping (PND)**: 0%
Variability	Both data within baseline (range: 100, SD: 44.39) and intervention phases showed extremely large variability (range: 100, SD: 70.71) Data within stability envelope for Baseline – 60% Data within stability envelope for Intervention – 50%

Table 4-6 Visual Analysis for TB1 - Angus

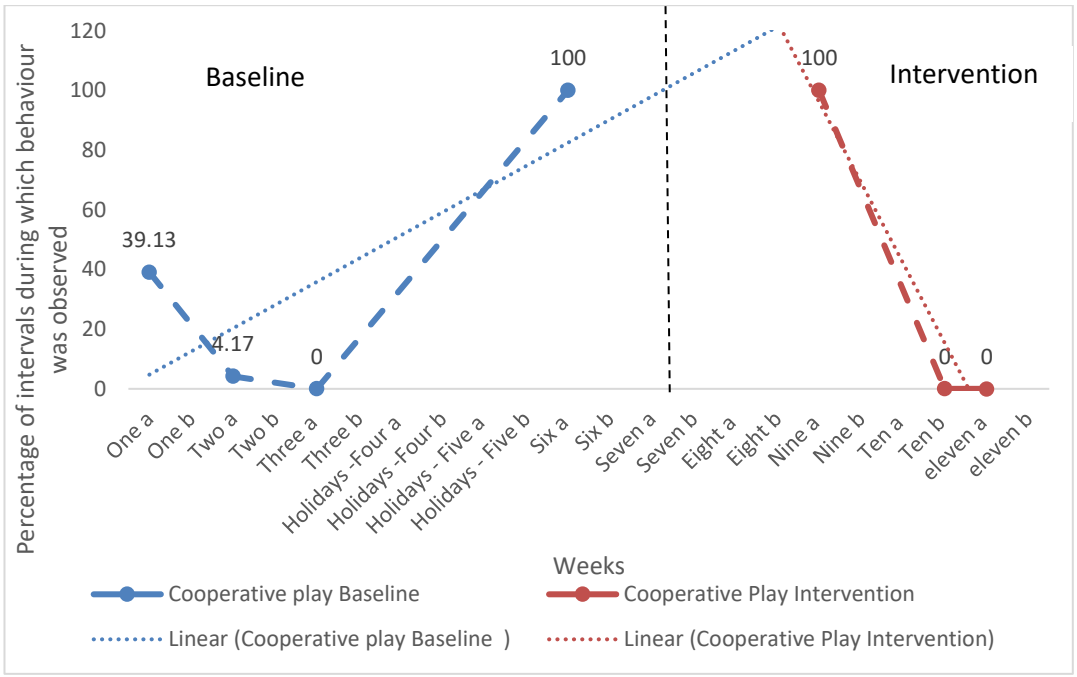
	Tau-U Effect Size	Confidence Interval (90%)	P-value
TB1	-0.1	-0.95<>0.75	0.8

Table 4-7 Tau-U Effect Size with Confidence Interval and P-values for TB1

4.2.2.3.1.2.3 TB2 – (increase indicates improvement)



Graph 4-3 Percentage of intervals for TB2 across baseline and intervention phases with means



Graph 4-4 Percentage of intervals for TB2 across baseline and intervention phases with trendlines

Level	**Mean Level Change:** -2.5, no improvement **Median Level Change**: -21.65, deteriorating **Relative Level Change**: + 50, improvement
Immediacy of effect	**Absolute Level Change**: No difference between last value of the baseline (100) to first value of the intervention (100) (although there were data points missing).
Slope	Baseline has an increasing trend Intervention has a decreasing trend
Overlap	There was a large overlap of data between the phases **POD**: 100% **PND:** 0%
Variability	There was a very large range of data within baseline (range: 100, SD: 46.24) and an even larger range within the intervention phase (range: 100, SD: 57.77) Data within stability envelope for Baseline – 0% Data within stability envelope for Intervention – 66.67%

Table 4-8 Visual Analysis for TB2 - Angus

Tau-U Analysis

	Effect Size (Tau-U)	Confidence Interval (90%)	P-value
TB2	-0.25	-0.93<>0.429	0.6

Table 4-9 Tau-U Effect Size for TB2 -Angus

Findings of TB1 suggest minimal intervention effect. Despite a slight improvement in mean scores between the baseline and intervention phases, there was too much overlap and variability within the data, and only two data points for the intervention phase (which is below the minimum of five datapoints required, Horner et al., 2005), to draw any firm conclusions with regards to the impact of the intervention on this behaviour. Furthermore, the TAU-U analysis only indicated a small effect size which was not found significant.

Findings of TB2 also suggest minimal intervention effect with there being no improvement in mean scores between baseline and intervention phases. Similarly, to TB1 there was a lot of variability within the data and data points missing meaning the minimum requirements of five datapoints per phase were not met, which reduces the reliability and validity of visual and statistical analysis of the data. The Tau-U analysis indicated a small effect size in the opposite direction which was not found to be significant.

4.2.2.3.1.3 Qualitative Comments

Table 4-10 summarises comments made by the TF and TA and information from the Theraplay Log with regards to specific outcomes for Angus in relation to his behaviour.

Angus		
Themes	Data Extract	Source
Presentation in the group	can approach him with it more now during the sunshine circle sessions and he will have a little go	TF line 160
	(Angus) (pause) he wouldn't come to the circle to join anything so he was from a distance	TA 70
	(Angus) accepted challenge of trying activity	Log 25.1.2019
Play outside of the group	we have seen him playing with some children as well (.) playing a game of doctors and things like that	TF 158
Other Factors	have been able to take the erm area down for him so his area is much more open now (.) I mean that's part of what they were perhaps doing in the class anyway but he is quite tolerant of it now	TF 156
	he's mellowed quite a lot to what he was last year	TA 148

Table 4-10 Comments regarding behaviour - Angus

4.2.2.3.2 RQ3 Results

4.2.2.3.2.1 STRS Results

Table 4-11 summarises pre and post STRS scores for Angus.

STRS Dimension	Pre Raw Score (Percentile)	Post Raw Score (Percentile)	Difference	Reliable Change?	CCT Category
Conflict	37 (87)	26 (70)	-11 (-17)	Yes	Improvement
Closeness	15 (<1)	26 (3)	+ 11 (+3)	Yes	No change
Dependency	8 (25)	7 (15)	-1 (-10)	No	No change
Total	72 (1)	95 (16)	+23(+ 15)	Yes	No change

Table 4-11 STRS Pre and Post Scores - Angus

4.2.2.3.2.2 Results Summary - Angus

Findings with regards to outcomes for behaviour suggest that the quantitative data has shown minimal intervention effect. In relation to the pre and post SDQ scores, there were no reliable changes for any of the SDQ categories. With regards to the SCED data there was not enough datapoints collected for the intervention phase to evidence impact of the intervention. Further limitations of this data will be further explored in section 5.2. The qualitative data is also generally supportive of the quantitative findings, although there were some reported improvements in Angus's presentation within the sessions e.g. engaging with some of the activities and outside of the sessions such as playing a game of doctors with other children. However, the qualitative data also provides evidence that there has been an implementation of other strategies in the classroom such as removing his 'wall' for his work area which could have had an impact on his behaviour, and this is particularly significant given a stable baseline was not obtained for the SCED data. One of the original target behaviours was not detected in the videos and therefore may suggest there were already changes in Angus's behaviour from the initial discussions with school staff at the start of the baseline, and the TA had noted his behaviour had "mellowed" since last year.

The STRS findings suggests the teacher views their relationship as being less negative and conflictual. However, due to the teacher not wanting to be interviewed, it is difficult to know whether this change was due to the intervention or to other factors, particularly as the teacher did not attend all Theraplay sessions.

4.2.2.4 CS1 - Malcolm

Malcolm attended all 'Sunshine Circle' sessions although his participation in the activities was reported to be variable.

4.2.2.4.1 RQ2 Results

4.2.2.4.1.1 T-SDQ Results

SDQ Category	Pre	Post	Difference	Reliable Change?	CCT Category
Total	9	6	-3	No	No change
Emotional	1	1	0	No	No change
Conduct	1	1	0	No	No change
Hyperactivity	6	3	-3	No	No change
Peer Problems	1	1	0	No	No change
Prosocial	7	6	1	No	No change
Externalising	7	4	3	N/A	N/A
Internalising	2	2	0	N/A	N/A

Table 4-12 T-SDQ Pre and Post Scores - Malcolm

4.2.2.4.1.2 Repeated Measures Results

Target behaviours for repeated measures were:

TB1 - Cooperative play with others – time sample

TB2 – Intruding children's and adult's personal space – event sample

Eight video recordings were completed for TB1 and thirteen for TB2. Length of time Malcolm was visible in the recordings ranged from 3:00 minutes to 13:10 minutes with average being 6:48 minutes. Due to the variability in video duration, percentage of intervals of time he was visible showing TB1 was calculated. For TB2 which was event sampling data, number of incidents per minute were calculated.

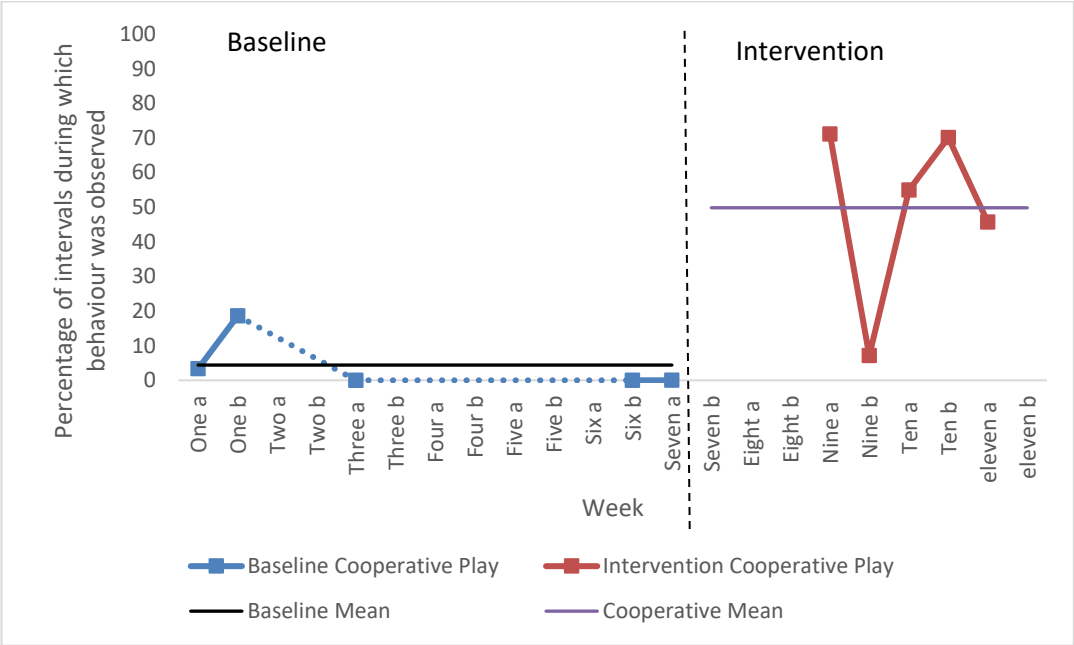
4.2.2.4.1.2.1 Inter- and Intra-Observer Reliability Findings

	Inter-Observer Reliability Agreement		Intra- Observer Reliability Agreement	
TB1	Percentage of Videos Observed	Kappa Cohen's Agreement	Percentage of Videos Observed	Kappa Cohen's Agreement
	11%	0.747 (p <.001)	33.33%	0.945 (p <.001)
TB2	Percentage of Videos Observed	Overall Percentage Agreement	Percentage of Videos Observed	Intraclass Correlation Coefficient for Average Measures
	7.69%	70.84%	23.08%	0.992

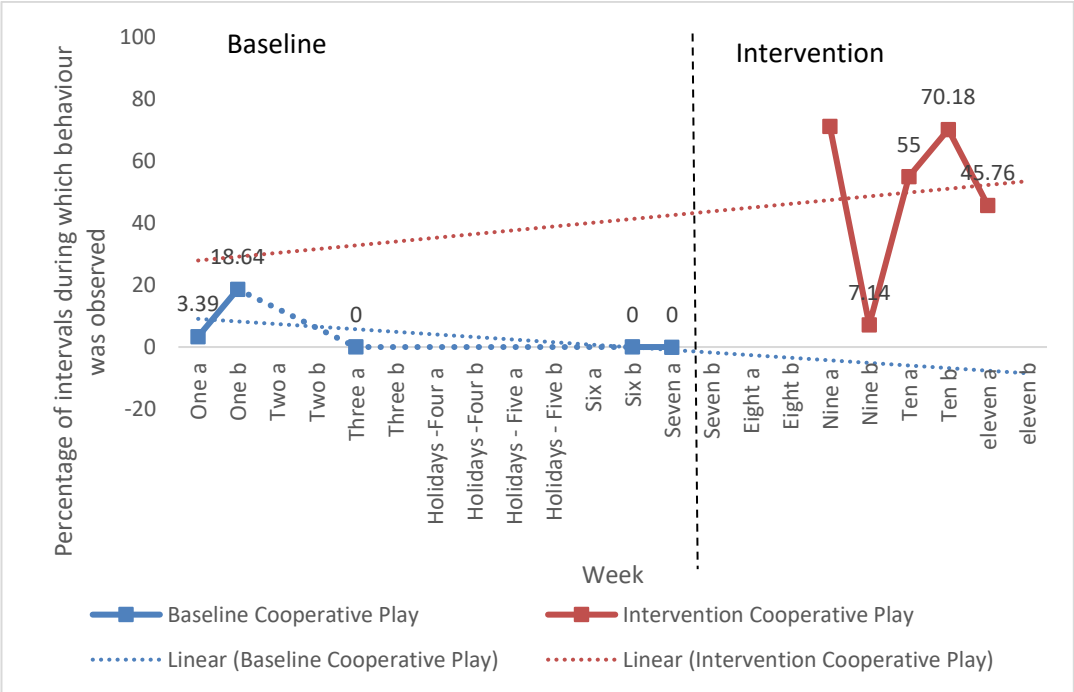
Table 4-13 Intra- and inter-observer reliability Findings -Malcolm

Due to the small number of videos that were observed for the inter-observer reliability checks for TB2, smaller/larger percentage agreement was calculated (Hintze, 2005). Inter-rater reliability for the observers showed a moderate level of agreement (70.84%) which will need to be taken into consideration when interpreting findings.

4.2.2.4.1.2.2 TB1 (increase indicates improvement)



Graph 4-5 – Percentage of intervals for TB1 across baseline and intervention phases with means



Graph 4-6 Percentage of intervals for TB1 across baseline and intervention phases with trend lines and data labels

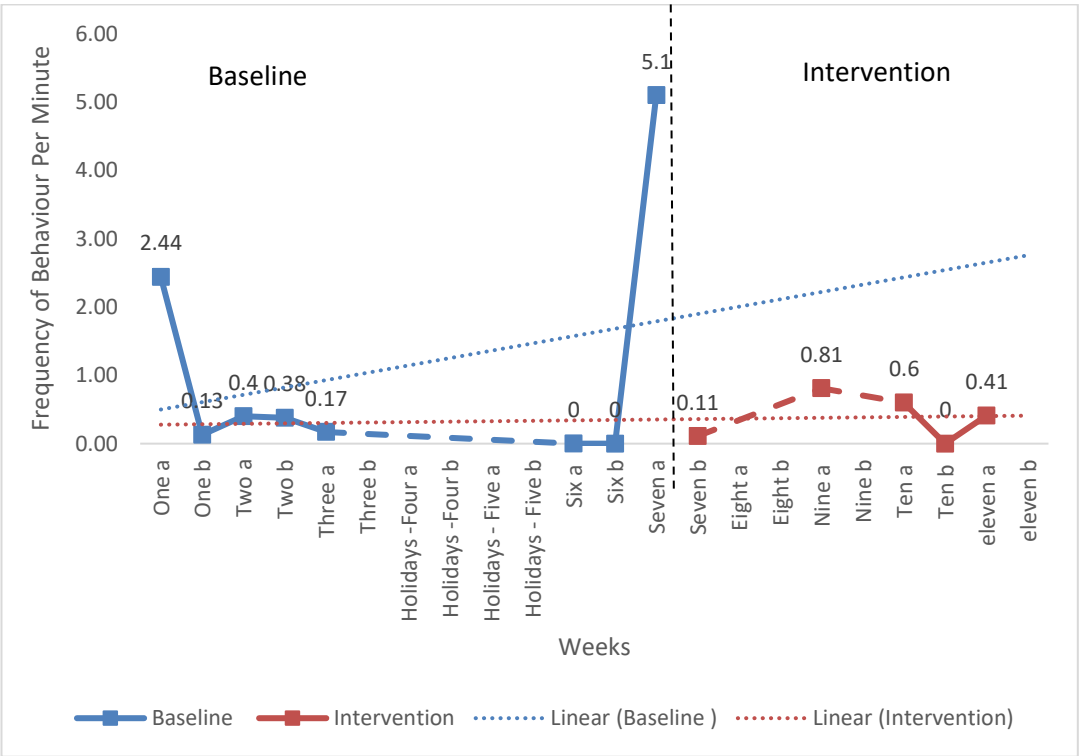
Level	**Mean Level Change:** + 45.448, improvement **Median Level Change**: +55, improvement **Relative Level Change**: + 39.17, improvement
Immediacy of effect	**Absolute Level Change**: Increase from last value of baseline (0) to first value of intervention (71.19), although there was three data points missing. (+ 71.19, improvement)
Slope	The baseline had a slight decreasing trend The intervention had a slight increasing trend
Overlap	Small amount of data overlapping between intervention and baseline phases **POD**: 20% **PND:** 80%
Variability	There was a large range of data within baseline (range: 18.64, SD: 7.24) and an even larger range within the intervention phase (range: 64.05, SD: 26.1858) Data within stability envelope for Baseline – 60% Data within stability envelope for Intervention – 40%

Table 4-14 Visual Analysis for TB1- Malcolm

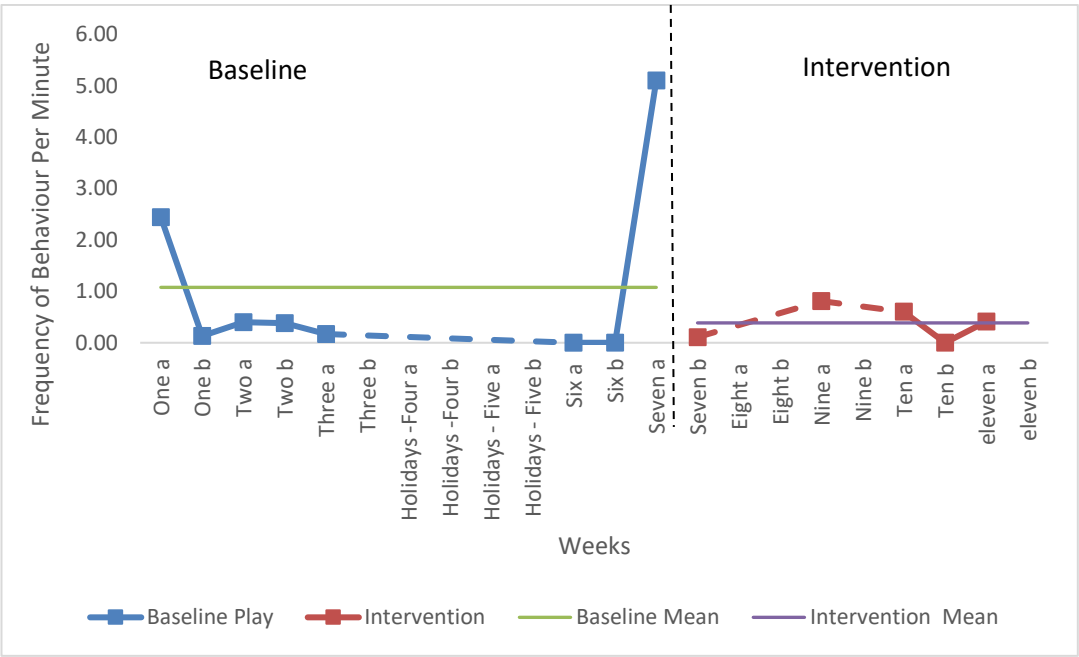
	Effect Size	Confidence Interval (90%)	P-value
TB1	0.92	0.475 < > 1	0.0007

Table 4-15 Tau-U Effect Size for TB1-Malcolm

4.2.2.4.1.2.3 TB2 (decrease indicates improvement)



Graph 4-7 Frequency of TB2 incidents per minute across baseline and intervention phases with trendlines



Graph 4-8 Frequency of TB2 incidents per minute across baseline and intervention phases with mean lines

Level	**Mean Level Change:** -0.7, improving **Median Level Change:** -0.14, improving **Relative Level Change:** +0.46, not improving
Immediacy of effect	**Absolute Level Change:** 5.1, improvement
Slope	Baseline had an increasing trendline (deteriorating) Intervention had a horizontal trendline (deteriorating)
Overlap	There was a large overlap of data the intervention and baseline phase **POD**: 100% **PND**: 0%
Variability	Data within baseline (range: 5.1, SD: 1.81) showed large variability in comparison to intervention phase (range: 0.81, SD: 0.36) Data within stability envelope for Baseline – 25% Data within stability envelope for Intervention – 20%

Table 4-16 Visual Analysis for TB2 - Malcolm

Tau-U Analysis

	Tau-U Effect Size	Confidence Interval (90%)	P-value
TB2	0.05	-0.5<>0.5	0.89

Table 4-17 Tau-U Effect Size Analysis for TB2 -Malcolm

Findings for TB1 suggest that there was an increase in observations of cooperative play within the intervention phase, which was supported by findings of a large effect size (0.92, Tau-U) which was significant (p.<0.0007).

Findings for TB2, however, showed minimal intervention effect with there being a large overlap of data between the baseline and intervention phases. Furthermore, the Tau-U analysis indicated a small effect size which was not found to be significant.

For both target behaviours, missing data is a limitation that will be further explored in section 5.2 .

4.2.2.4.1.3 Qualitative comments

Malcolm		
Subtheme	Data Extract	Source
Outcomes	definitely became more confident	TF line 150
	I think he had more of a voice really (.) sharing what things he liked and perhaps did not like	TF 151
Presentation in the group	did get quite excited at that at times	TA 78
	did like hiding under the blanket and then getting a cuddle from erm another child and then they had to guess who the child was (.) so they kind of liked that	TA 73
	he was unsettled probably during the morning and he would not join in but that wasn't every session	TA 22
	needed reassurance	Log 25.1.2019/ 8.2.2019
Other factors	has got a little but more excitable (.) but I think that's because we've had some issues with [another child in class] at the moment	TA 143
	Malcolm is picking up on that even though he doesn't know what he is saying he is copying	TA 145

4-18 Comments regarding behaviour-Malcolm

4.2.2.4.2 RQ3 Results

4.2.2.4.2.1 STRS Results

Table 4-19 summarises pre and post STRS scores for Malcolm.

STRS Dimension	Pre Raw Score (Percentile)	Post Raw Score (Percentile)	Difference	Reliable Change?	CCT Category
Conflict	20 (50)	18 (45)	-2 (-15)	No	No change
Closeness	34 (12)	32 (8)	-2 (-4)	No	No change
Dependency	11 (65)	10 (50)	-1 (-15)	No	No change
Total	105 (28)	106 (29)	+1 (+1)	No	No change

Table 4-19 STRS Pre- and Post-scores -Malcolm

4.2.2.4.3 Results Summary - Malcolm

Findings with regards to outcomes for behaviour suggest the quantitative data shows an increase in observations of cooperative play over the intervention period and a minimal intervention effect with regards to personal space. The SDQ data did show a decrease in total difficulties score although this change was not reliable. Qualitative data is limited with regards to specific outcomes. It was reported he had been perceived to be more confident, although it was also reported that his behaviour was impacted by the other children's behaviour.

The findings of the STRS did not show any reliable changes or changes in CCT category.

4.2.2.5 CS1 - Brian

Brian attended all 'Sunshine Circle' sessions.

4.2.2.5.1 RQ2 Results

4.2.2.5.1.1 T-SDQ Results

Table 4-20 summarises pre- and post-T-SDQ scores for Brian.

SDQ Category	Pre	Post	Difference	Reliable Change?	CCT Category
Total	10	11	+1	No	No change
Emotional	1	4	+3	Yes	No change
Conduct	0	2	+2	No	No change
Hyperactivity	8	5	-3	No	Improvement
Peer Problems	1	0	-1	No	No change
Prosocial	5	3	-2	No	Deterioration
Externalising	8	7	-1	N/A	N/A
Internalising	2	4	+2	N/A	N/A

Table 4-20 T-SDQ Pre and Post Scores- Brian

4.2.2.5.1.2 Repeated Measures

4.2.2.5.1.2.1 Video Recordings

Target behaviours for the repeated measures were:

TB1 - Cooperative play with others

TB2 - Vocalisations

Nine video recordings were completed for TB1 and twelve for TB2. Length of time Brian was visible in the recordings ranged from 4:10 minutes to 10 minutes with average time of 6:51. Due to this variability percentage of intervals of time he was visible showing the TB1, and number of vocalisations per minute for TB2 were calculated.

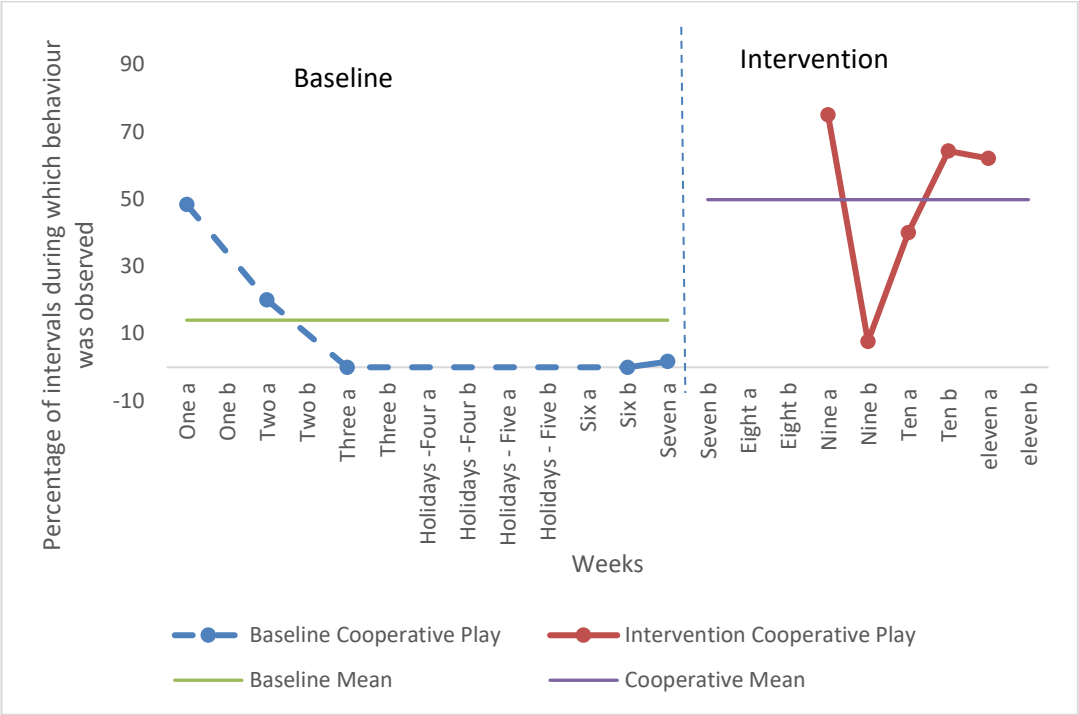
4.2.2.5.1.2.2 Inter- and Intra-Observer Reliability Findings

	Inter-Observer Reliability Agreement		Intra-Observer Reliability Agreement	
TB1	Percentage of Videos Observed	Kappa Cohen's Agreement	Percentage of Videos Observed	Kappa Cohen's Agreement
	11.11%	0.79 (p <.001)	44.44%	0.892 (p <.001)
TB2	Percentage of Videos Observed		Percentage of Videos Observed	Intraclass Correlation Coefficient for Average Measures
	N/A	N/A	25%	0.950

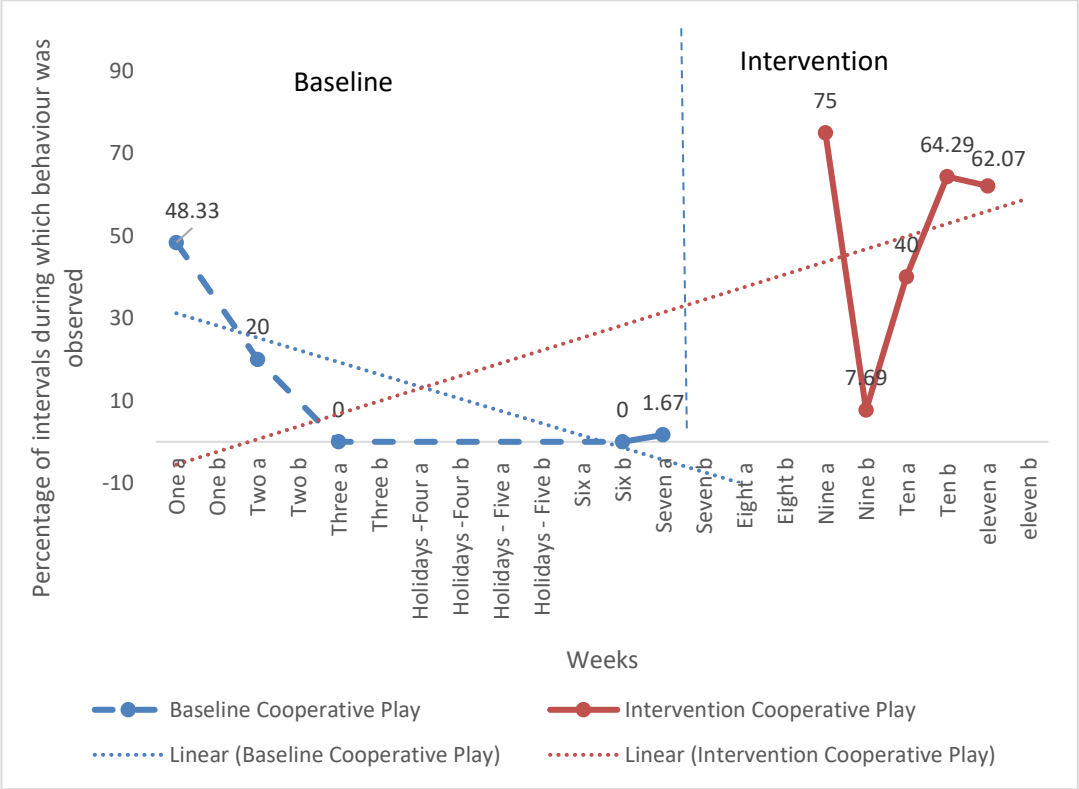
Table 4-21 Inter- and Intra-Observer Reliability Findings-Brian

For TB2, Inter-rater reliability was not be calculated due to limited availability of another observer. Intra-reliability indicates an excellent level of agreement.

4.2.2.5.1.2.3 TB1 – (increase indicative of improvement)



Graph 4-9 Percentage of intervals for TB1 across baseline and intervention phases with means



Graph 4-10 Percentage of intervals for TB1 across baseline and intervention phases with trendlines and data labels

Level	**Mean Level Change**: +35.81, improving **Median Level Change:** +60.4, improving **Relative Level Change**: +39.17, improving
Immediacy of effect	**Absolute Level Change:** + 73.33, improving
Slope	Baseline has a decreasing trend Intervention has an increasing trend
Overlap	Moderate amount of data that is overlapping between the intervention and baseline phase **POD: 40%** **PND: 60%**
Variability	Large range of data within baseline (range: 48.33,SD: 20.97) and a larger range within the intervention phase (range: 67.31, SD: 26.76) Data within stability envelope for Baseline – 40% Data within stability envelope for Intervention – 60%

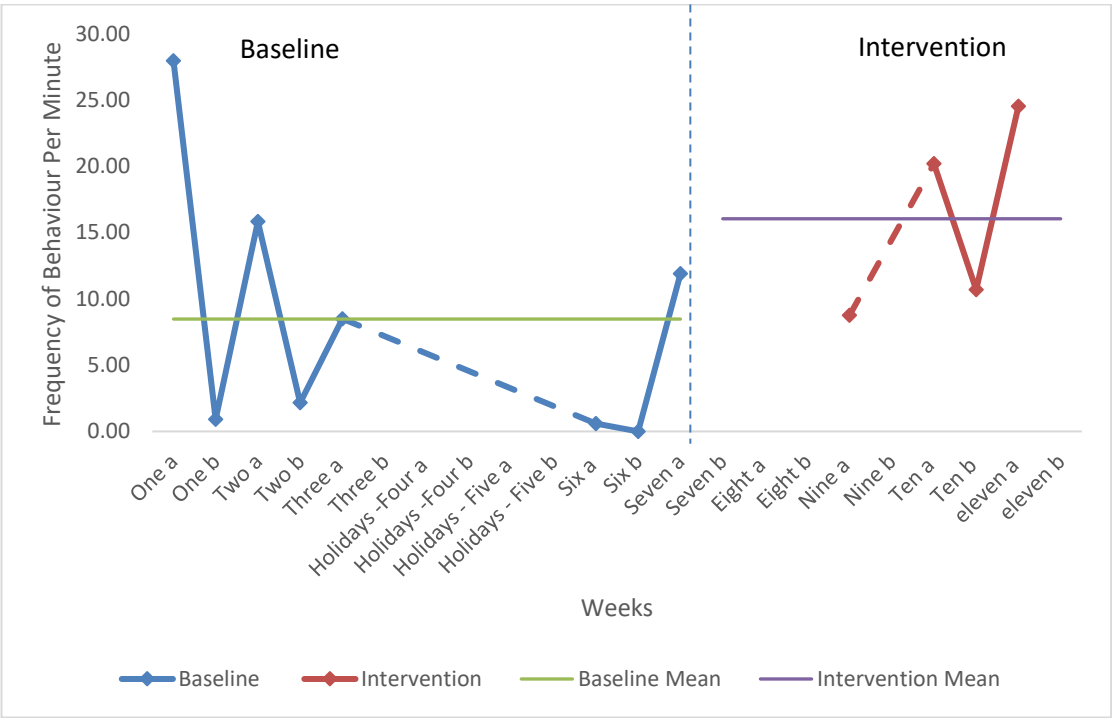
Table 4-22 TB1 Visual Analysis-Brian

Tau-U Analysis

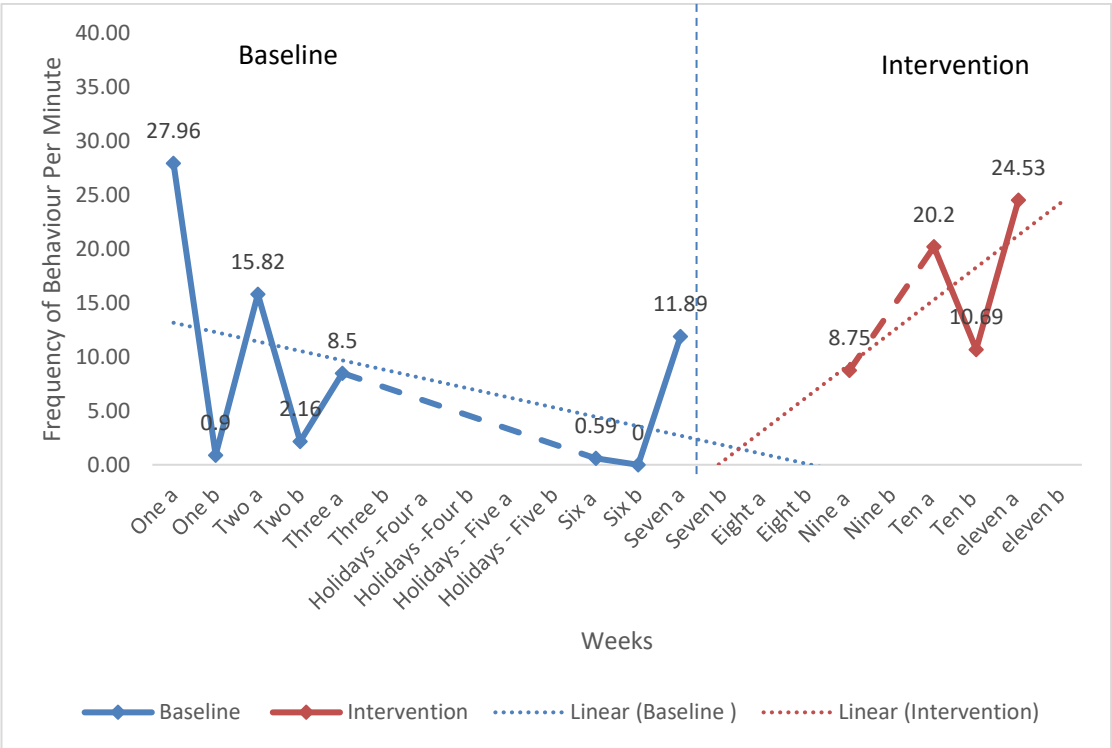
	Effect Size	Confidence Interval (90%)	P-value
TB1	0.76	0.130<>1	0.0472

Table 4-23 TB1 Tau-U Effect Size -Brian

4.2.2.5.1.2.4 TB2- (increase indicative of improvement)



Graph 4-11 Frequency of TB2 per minute across baseline and intervention phases with mean lines



Graph 4-12 Frequency of TB2 per minute across baseline and intervention phases with trendlines

Level	**Mean Level Change:** +7.56, improving **Median Level Change:** +10.12, improving **Relative Level Change**: +14.18, improving
Immediacy of effect	**Absolute Level Change:** -3.14, deteriorating
Slope	Baseline had a decreasing trend Intervention had an increasing trend
Overlap	Large amount of data that is overlapping between the intervention and baseline phase **POD:** 100% **PND:** 0%
Variability	Large range of data within baseline (range: 27.96, SD: 9.83) and a smaller range within intervention phase (range: 15.78, SD: 7.55) Data within stability envelope for Baseline – 0% Data within stability envelope for Intervention – 50%

Table 4-24 TB2 Visual Analysis Findings-Brian

Tau-U Analysis

	Effect Size	Confidence Interval (90%)	P-value
Cooperative Behaviour	0.5	-0.105<>1	0.17

Table 4-25Tau-U Effect Size for TB2-Brian

In relation to TB1, there was an increase in observations of TB1 within the intervention phase which was supported by findings of a medium effect size (0.76, Tau-U) which was found to be significant (p.< 0.0472).

Findings for TB2, however, showed minimal intervention effect with there being a large overlap of data between the baseline and intervention phases. Furthermore, the Tau-U was not found to be significant.

For both target behaviours, missing data is a limitation. Only four datapoints were recorded for the intervention phase which is below the minimum of five datapoints recommended (Horner et al., 2005). Therefore, this data should be viewed with some caution and the limited number of datapoints could affect visual and statistical analysis. This is further explored in section 5.2.

4.2.2.5.1.3 Qualitative comments

Brian		
Subtheme	Data Extract	Source
Presentation in the group	Brian were always ready (.) yeah with their chair	TA 137
	Brian followed [child in the group] of not wanting to join in Brian did same copying him	Log 18.1.2019
	Malcolm and Brian they did like hiding under the blanket and then getting a cuddle from erm another child and then they had to guess who the child was (.) so they kind of liked that	TA 73
Other factors	Brian has not been well for I would say two weeks …so whether that's had an impact on his behaviour R: (in overlap) Yeah TA: Or whether he's kind of copying behaviour from other children in the class	TA 157

Table 4-26 Qualitative comments regarding-Brian

4.2.2.5.2 Results relating to Question Three

4.2.2.5.2.1 STRS Results

Table 4-27 summarises pre- and post-STRS scores for Brian.

STRS Dimension	Pre Raw Score (Percentile)	Post Raw Score (Percentile)	Difference	Reliable Change?	CCT Category
Conflict	19 (47)	26 (70)	+7 (+23)	No	No change
Closeness	27 (3)	31 (8)	+ 4 (+5)	No	No change
Dependency	10 (50)	8 (25)	-2 (-25)	No	No change
Total	100 (21)	99 (19)	-1 (-2)	No	No change

Table 4-27 Pre- and Post-STRS scores-Brian

4.2.2.5.3 Results Summary - Brian

Findings with regards to outcomes for behaviour indicate an increase in observations of cooperative play over the intervention period although a minimal intervention effect with regards to vocalisations. Although, as previously, there is some caution needed in the interpretation of the SCED data due to there being missing data and only being four data points collected in the intervention phase, which is below the minimum of five datapoints recommended (Horner et al., 2005). Therefore, this data should be viewed with some caution as the limited number of datapoints could affect visual and statistical analysis. This is further explored in section 5.2.

The SDQ data did show an increase in emotional symptoms. The TA reported that Brian had not been well over the past few weeks and had wondered if this had impacted his behaviour.

STRS findings show no reliable changes in the scores which indicates no differences in the teacher's perception of his relationship with Brian.

4.3 CS2 Results

4.3.1 CS2 - RQ1 Results

Findings from the qualitative data (based on interview data collected from the Nursery Manager (NM) and the four Key Workers (KW), and comments from the Theraplay Logs) are presented to answer research question one (RQ1). Three themes were developed from the thematic analysis of the data:

1. Implementation of Theraplay Interventions
2. Facilitating factors
3. Challenges and Barriers

Not all of the logs were completed for the sessions. A table of the Theraplay activities completed are presented in Appendix GG.

Thematic maps followed by an overall summary are presented. Data extracts for each subtheme are in appendices HH and II.

4.3.1.1 CS2 - Implementation of Theraplay Intervention

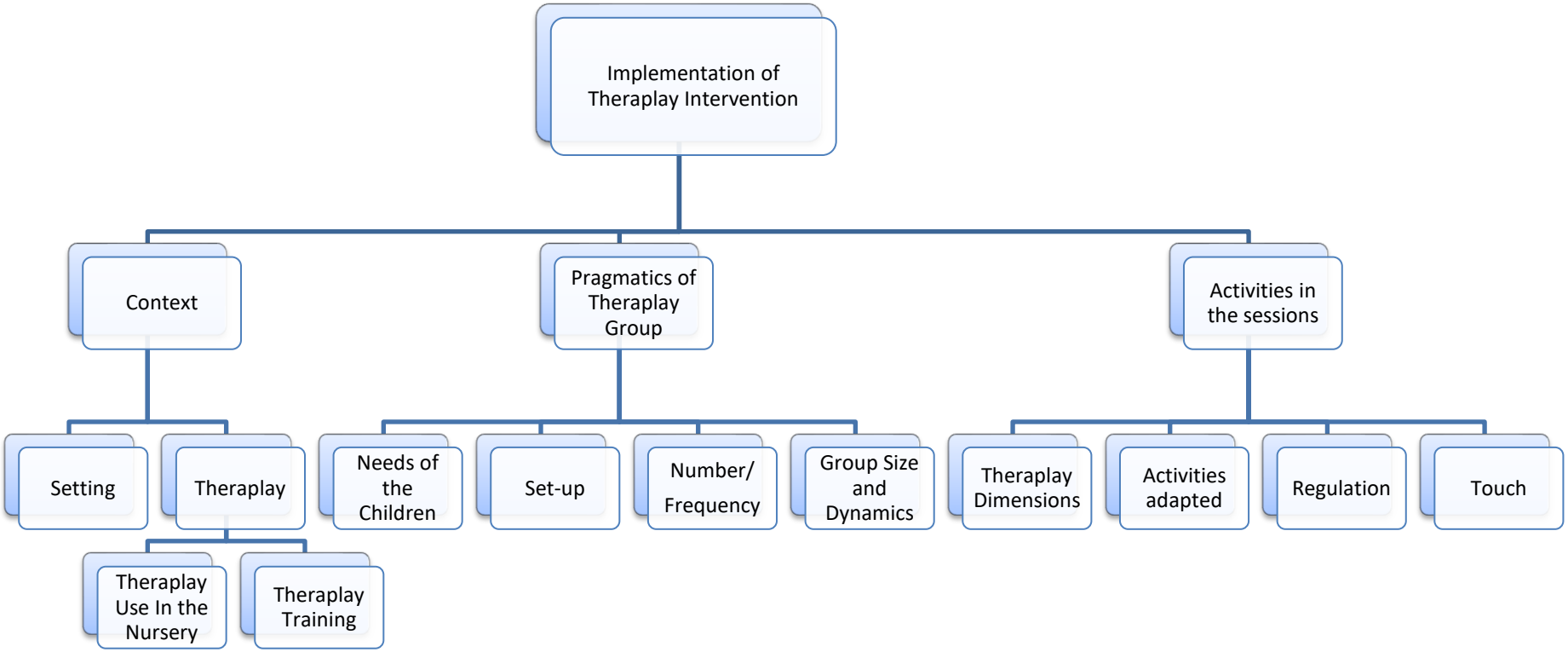


Figure 4-5 CS2-Thematic Map of Implementation of Intervention

4.3.1.2 CS2 - Facilitating Factors

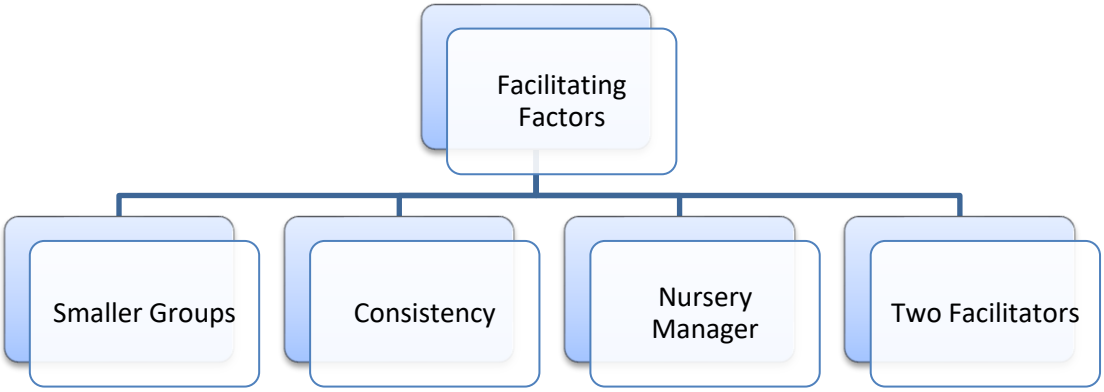


Figure 4-6 CS2-Thematic Map of Facilitating Factors

4.3.1.3 CS2 - Challenges and Barriers

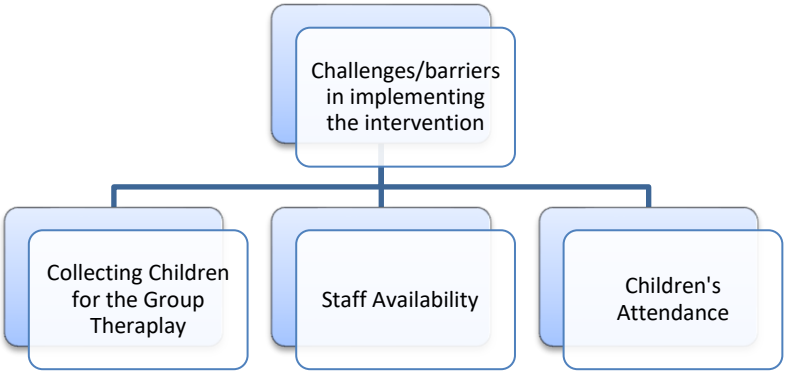


Figure 4-7 CS2-Thematic Map of Challenges/Barriers

4.3.1.4 CS2 - Summary of Findings for RQ1

At the time of data collection, five GT sessions had been completed. While not all the logs were completed, a limitation later explored in section 5.2, descriptions from the two Theraplay facilitators (NM and KW to Roger) indicate that sessions were usually fifteen minutes long, weekly, at the same time and in one of two nursery rooms. There were two separate groups of six children, one group for two-year-old children and one for three-year-old children. Groups were divided because of developmental differences in maintaining concentration, but the temperament of the children was also considered.

Descriptions from NM suggest structure of the session followed a similar format to that described in section 3.6.2.1. Structure was an important aspect to the sessions. Activities were reported to be adapted depending on the children's presentation and were used to support regulation of behaviours. Touch was reported to be used in the sessions.

The context of the setting is one that is reported to embed Theraplay. Use of Theraplay in the nursery includes using 'Sunshine Circle' rules, applying Theraplay techniques to management of behaviour, and having 'Sunshine Circle' groups with all the nursery children on a Monday. The nursery had a restructure over the past year when the NM was on maternity leave resulting in only two members of the original team remaining. Prior to this restructure all staff were trained in Level One Theraplay. The new staff had training in Group Theraplay in two twilight sessions on 27th February and 6th March (week one and two in the baseline phase) and a full day on 23rd April (week seven in the intervention phase) by the LA Theraplay Manager. This was reported to lead to an increase in staff's application of Theraplay which is supported by findings from the interviews with the KWs (detailed in participant data findings 4.3.2.2).

Factors that were reported to facilitate the Theraplay intervention included the small group size which allowed more children to receive attention from the facilitators and activities to be adapted to meet their needs. Consistency was also highlighted as important factor, such as the venue, facilitators, and times always being the same.

Having two facilitators was identified as being helpful, allowing more children to receive attention and enabling the sessions to continue if either staff member were absent. The NM herself also appeared to be an important factor in that they identified as being an advocate of Theraplay and viewed it as an approach that worked, and therefore was keen to ensure that it was used throughout the nursery.

Challenges/barriers to the intervention identified included staff availability, particularly that of the NM who sometimes had to leave to attend other meetings or incidences. Children's attendance was also identified as a difficulty, and it was reported that the children that attended the sessions consistently showed more positive changes. Finally, the pragmatics of collecting the children for the groups was reported as a challenge, both in ensuring that all children were together, but also managing other children's feelings when they could not come to the group. Collection of the children was done in ways such as creating a 'train' or pretending to be monkeys.

4.3.2 CS2 - RQ2 and RQ3 Results

4.3.2.1 Outcomes from Thematic Analysis

Findings from the thematic analysis led to three subthemes being identified; impact of context; outcomes observed within the Theraplay Group; and outcomes observed outside of the Theraplay Group. A thematic map and a summary is presented. See Appendix II for data extracts for each subtheme.

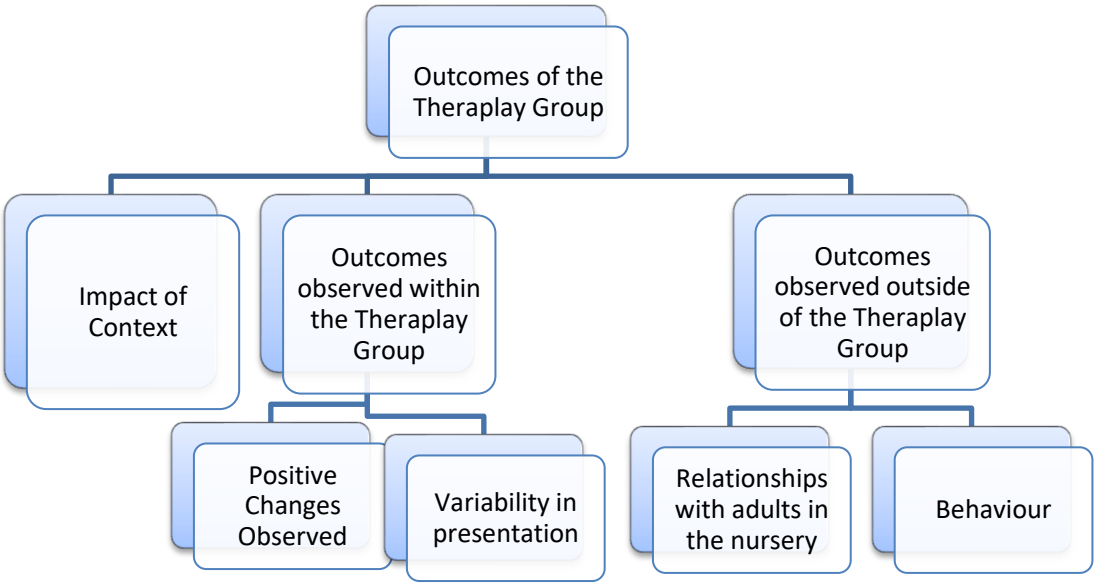


Figure 4-8 CS2 - RQ2 and RQ3 Thematic Map

Findings indicate there were some changes observed both within and outside of the GT, however the 'impact of context' highlights the difficulties in determining if any changes observed were due to the intervention itself or other factors such as Theraplay being used throughout the nursery, particularly as staff received recent training during the research timeframe. This is a theme that continues in all but one interview with the KWs detailed later in participant data.

Outcomes observed within the groups include the children are reported to be participating more within the group, their body language is more relaxed and they

are presenting more confidently. However, there was some variability in the children's presentation, with factors such as home having an impact on the children's behaviour, and the NM also highlighted that it was still "early days".

Outside of the group, the NM highlighted that there has been an increase in children's confidence and for one child an increase in talking and vocabulary. With regards to relationships with adults, the NM reported that the children who participated in the groups have developed a better relationship with her and believed that check-ups were an activity that helped children to understand the positive role of the adult.

4.3.2.2 CS2 - Participant Data

Findings for RQ2 and RQ3 for the four CS2 participants are presented individually. For all participants in CS2, an increase in behaviours in the SCED data indicates improvement.

4.3.2.3 CS2 - David

David attended all six GT sessions.

4.3.2.3.1 RQ2 Results

4.3.2.3.1.1 T-SDQ Results

Table 4-28 summarises pre- and post-scores for David.

SDQ Category	Pre	Post	Difference	Reliable Change?	CCT Category
Total	20	15	-5	No	No change
Emotional	5	4	-1	No	No change
Conduct	6	3	-3	Yes	Improvement
Hyperactivity	6	5	-1	No	No change
Peer Problems	3	3	0	No	No change
Prosocial	9	8	-1	No	No change
Externalising	12	8	-4	N/A	N/A
Internalising	8	7	-1	N/A	N/A

Table 4-28 Pre/Post-T-SDQ scores-David

4.3.2.3.1.2 Repeated Measures

Target behaviours for the repeated measures were:

TB1- Sitting appropriately at group times (using the DBR rating scale)

TB2 – Following verbal instructions from staff members (event sample)

Overall David's KW completed 14 observations during the baseline phase and 12 during the intervention phase.

4.3.2.3.1.2.1 Inter-Observer Reliability Findings

	Percentage of Observations	Intra-Class Correlation Coefficient
TB1	15.38%	0.95 (*P*=.013)
TB2	15.38%	0.53 *(P*=.436)

Table 4-29 Inter-Observer Reliability findings-David

For TB2, there was a low agreement between the researcher and KW which was not found to be significant. On average the KW scored 74.53% of instructions being followed in contrast to the researcher who scored 37.5%. Discussions with the KW indicate that their understanding of an instruction was different to the operational definition created, Implications of this are discussed in section 5.2.

4.3.2.3.1.2.2 TB1

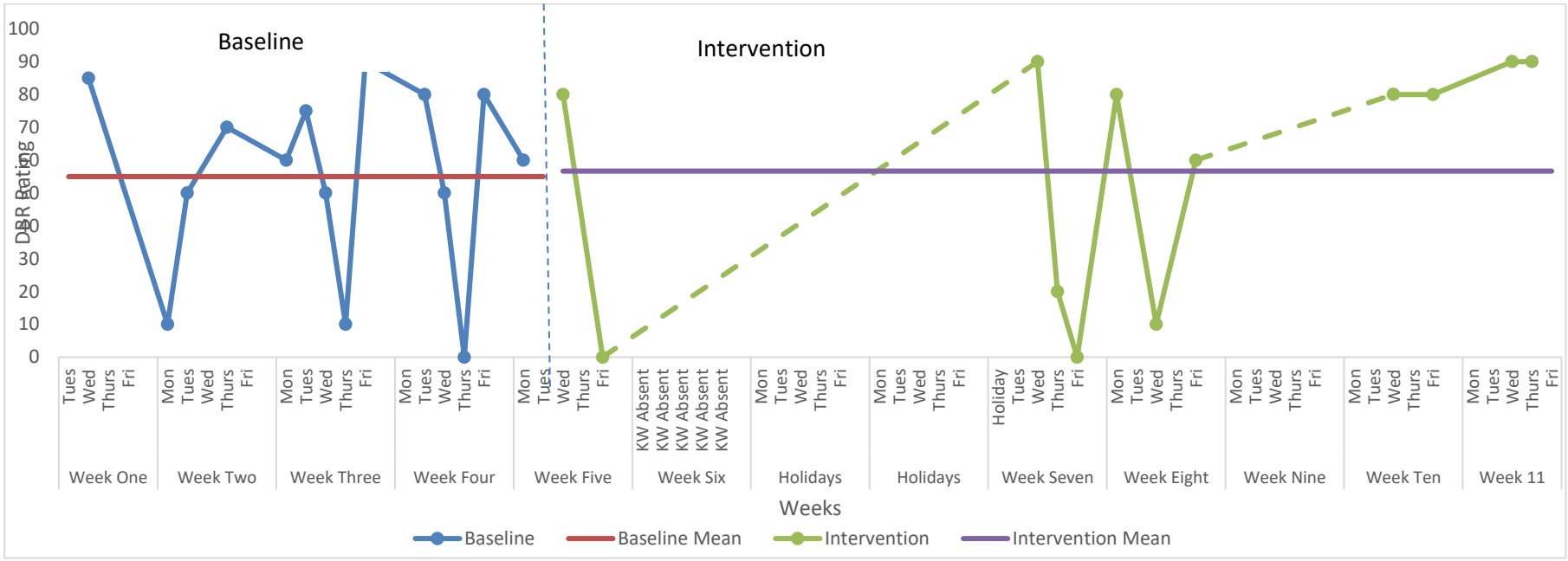


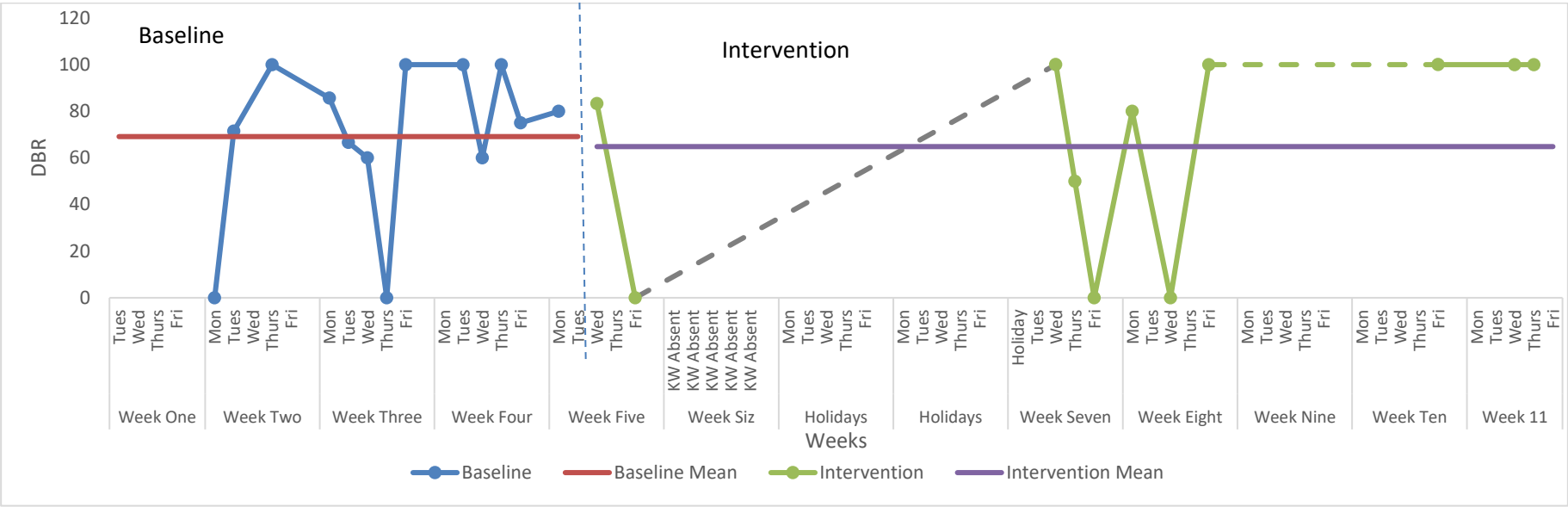
Figure 4-9 DBR Score for TB1 across baseline and intervention phases with means - David

Tau-U Analysis

	Effect Size (Tau-U)	Confidence Interval (90%)	P-value
Sitting	0.16	-0.22<>0.54	0.49

Table 4-30 TB1 Tau-U Effect Size-David

4.3.2.3.1.2.3 TB2



Graph 4-13 Percentage of TB2 across baseline and intervention phases with means -David

Tau-U Analysis

	Effect Size (Tau-U)	Confidence Interval (90%)	P-value
Following instructions	0.06	-0.36<>0.48	0.82

Table 4-31 TB2 Tau-U Effect Size-David

	Analysis for TB1	Analysis for TB2
Level	**Mean Level Change:** +1.67 (improving) **Median Level Change:** +20 (improving) **Relative Level Change:** -10 (deteriorating)	**Mean Level Change**: 5.83 (deteriorating) **Median Level Change:** +3.3 (improving) **Relative Level Change:** 21.43 (deteriorating)
Immediacy of effect	**Absolute Level Change**: +20 (improving)	**Absolute Level Change:** +3.33 (improving)
Slope	The baseline has a slight decreasing trend (deteriorating). The intervention had an increasing trend (improving)	The baseline has an increasing trend (improving) The intervention had an increasing trend (improving)
Overlap	There was a large overlap of data the intervention and baseline phase **POD:** 100% **PND:** 0%	There was a large overlap of data the intervention and baseline phase **POD:** 100% **PND:** 0%
Variability	Data within baseline (range: 90, SD: 29.35) and intervention phases showed large variability (range: 90, SD: 37.5) Data within stability envelope for Baseline – 50%Data within stability envelope for Intervention – 58.3%	Data within baseline (range: 100, SD: 34.46) and intervention phases showed large variability (range: 100, SD: 44.26) Data within stability envelope for Baseline – 84.61% Data within stability envelope for Intervention – 63.64%

Table 4-32 TB1 and TB2 Visual Analysis-David

Findings for TB1 suggest minimal intervention effect. Despite a slight improvement in mean scores between the baseline and intervention phases, there was too much overlap and variability within the data to draw any firm conclusions with regards to impact of the intervention on this behaviour. Furthermore, the TAU-U analysis only indicated a small effect size which was not found to be significant.

Findings for TB2 also suggest minimal intervention effect with there being no improvement in mean scores between baseline and intervention phases. Similarly, there was also a lot of variability within the data. The data also showed an increasing trend in both phases. The Tau-U analysis indicated a small effect size in the opposite direction which was not found to be significant.

4.3.2.3.1.3 RQ2 Qualitative Data

Thematic map from interview with David's KW is presented. Data extracts from interview are in Appendix JJ.

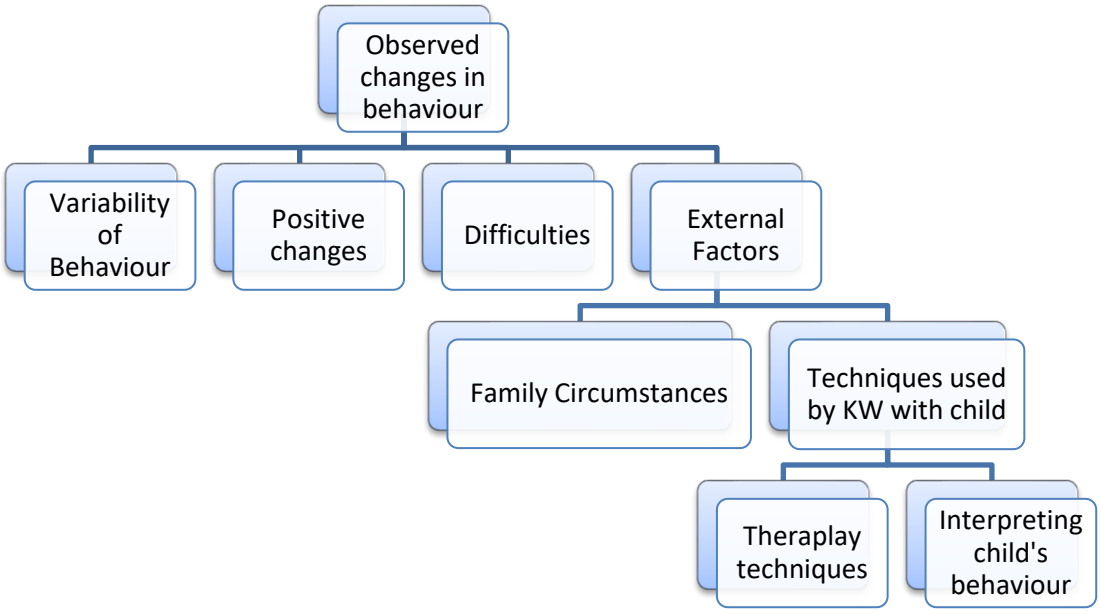


Figure 4-10 David - RQ2 Thematic Map

4.3.2.3.2 RQ3 Results

4.3.2.3.2.1 STRS Results

STRS Dimension	Pre Raw Score (Percentile)	Post Raw Score (Percentile)	Difference	Reliable Change?	CCT Category
Conflict	38 (89)	29 (77)	-9 (12)	Yes	No change
Closeness	44 (45)	51 (85)	+7 (+40)	No	No change
Dependency	11 (65)	15 (90)	+4 (+25)	No	Deterioration
Total	97 (18)	109 (35)	+12 (+17)	No	Improvement

Table 4-33 Pre- and Post-STRS Scores- David

4.3.2.3.2.2 RQ3 Qualitative Data

Thematic map is presented. Data extracts are in Appendix JJ.

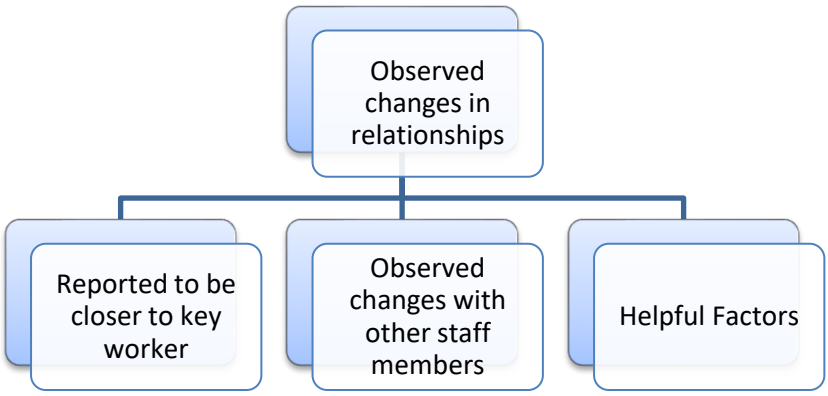


Figure 4-11 David - RQ3 Thematic Map

4.3.2.3.3 Summary of Results for David

With regards to behaviour, there was a reliable reduction in T-SDQ scores of conduct. The repeated measures did not appear to indicate any changes in the two target behaviours although limitations of this data are explored in section 5.2. However, the qualitative findings are also generally supportive of this with the KW reporting an increase in pushing boundaries behaviours. Although it is of note that two weeks after the interview, the KW reported David having a positive transition into the next section of the nursery and less tantrums. There was evidence of change of strategies being used outside of the GT such as Theraplay techniques and evidence that family circumstances were having a possible impact on behaviour.

Findings show reported changes with regards to the KW's relationship with David. The STRS findings show a reliable reduction in the degree the KW views her relationship with him to be negative and conflictual, and a change in CCT category which suggests the KW views David as having an increase reliance in her and that overall their relationship was perceived as more positive. The KW reported that David was a lot closer to her and seeking more support. The KW cited that 'Sunshine Circles' and Theraplay had helped with the relationship, which suggests changes observed are unlikely to be just due to the GT sessions.

4.3.2.4 CS2 – Nick

Nick attended all Group Theraplay sessions

4.3.2.4.1 RQ2

4.3.2.4.1.1 T-SDQ Results

Table 4-33 summarises pre and post T-SDQ scores for Nick.

SDQ Category	Pre	Post	Difference	Reliable Change?	CCT Category
Total	16	7	-9	Yes	Improvement
Emotional	0	0	0	No change	No change
Conduct	4	0	-4	Yes	Improvement
Hyperactivity	6	3	-3	No	No change
Peer Problems	6	4	-2	No	Improvement
Prosocial	3	5	2	No	Improvement
Externalising	10	3	-7	N/A	N/A
Internalising	6	4	-2	N/A	N/A

Table 4-34 Pre- and Post-T-SDQ Scores-Nick

4.3.2.4.1.2 Repeated Measures

Target behaviour for repeated measure was 'Sitting appropriately at group times'

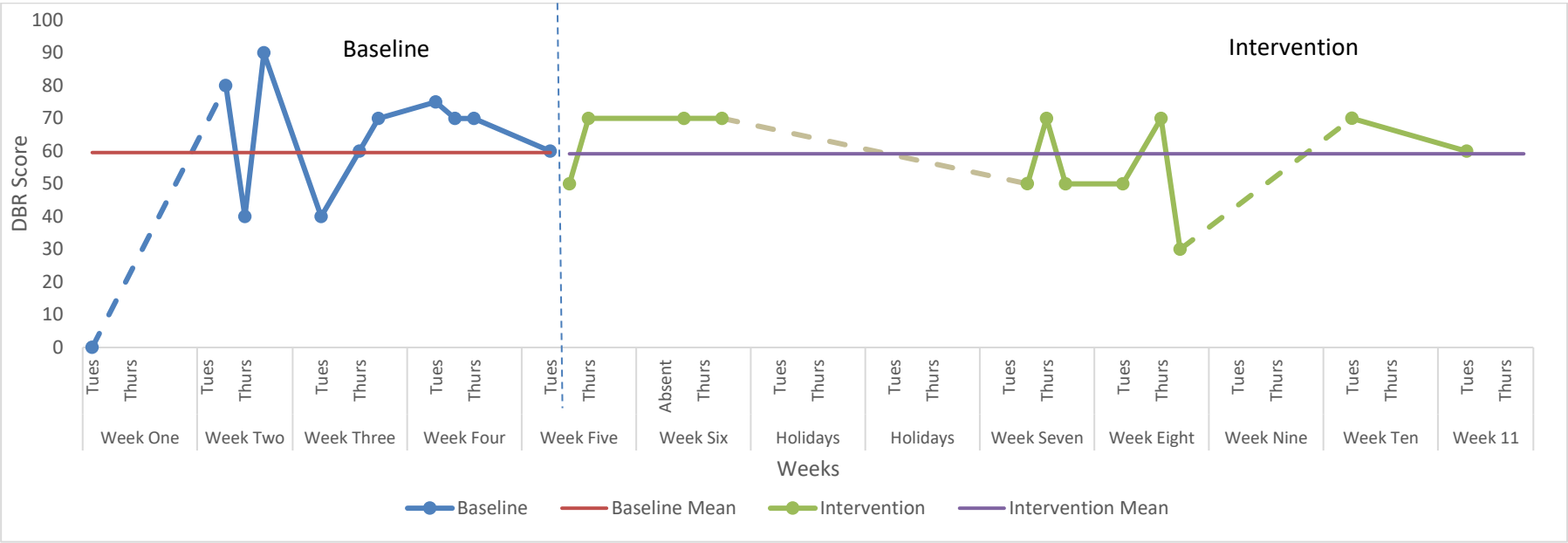
Nick's KW completed 11 observations during the baseline phase and 12 during the intervention phase.

4.3.2.4.1.2.1 Inter-Observer Reliability Findings

	Percentage of Observations	Intra Class Correlation Coefficient
TB1	13.04%	0.981 (*P*=.026)

Table 4-35 Inter-Observer Reliability Findings-Nick

4.3.2.4.1.2.2 TB1



Graph 4-14 DBR Score for TB1 across baseline and intervention phases with means- Nick

Tau-U Analysis

	Effect Size (Tau-U)	Confidence Interval (90%)	P-value
Sitting	-0.15	-0.56<>0.25	0.54

Table 4-36 TB1 Tau-U Analysis- Nick

Level	**Mean Level Change**: - 0.37 (deteriorating) **Median Level Change:** -5 (deteriorating) **Relative Level Change:** 0 (no change))
Immediacy of effect	**Absolute Level Change:** -10 (deteriorating)
Slope	The baseline has an increasing trend (improving) The intervention has a slight decreasing trend (deteriorating)
Overlap	There was a large overlap of data within the intervention and baseline phase **POD:** 100% **PND:** 0%
Variability	Data within baseline (range: 90, SD: 24.96) showed large variability. Data within the intervention phases was less variable and more stable (range: 40, SD: 13.11) Data within stability envelope for Baseline – 58.33% Data within stability envelope for Intervention – 91.67%

Table 4-37 TB1 Visual Analysis-Nick

Visual analysis findings suggest minimal intervention effect. There was no improvement in mean and median scores between the baseline and intervention phases or relative level change. The baseline shows an increasing trend while the intervention trend remains stable. There were large overlapping data points and the baseline was not stable. The TAU-U analysis only indicated a small negative effect size which was not found significant.

4.3.2.4.1.3 RQ2 Qualitative Data

Thematic map from interview with Nick's KW is presented. Data extracts from interview are in Appendix KK.

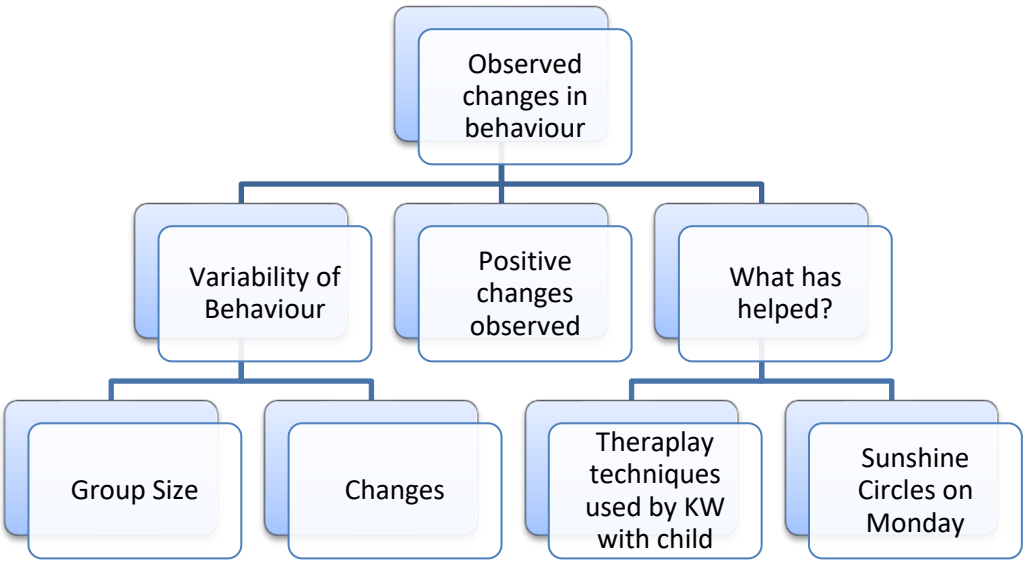


Figure 4-12 Nick - RQ2 Thematic Map

4.3.2.4.2 RQ3 Results

4.3.2.4.2.1 STRS Results

Table 4-38 details pre and post STRS scores. Shaded boxes indicate scores that are of 'high concern' Pianta (2001).

STRS Dimension	Pre Raw Score (Percentile)	Post Raw Score (Percentile)	Difference	Reliable Change?	CCT Category
Conflict	29 (77)	23 (62)	-6 (-15)	No	Improvement
Closeness	39 (25)	50 (80)	+11 (+55)	Yes	Improvement
Dependency	9 (40)	13 (80)	+4 (+40)	No	Deterioration
Total	103 (26)	116 (50)	+13 (+24)	No	No change

Table 4-38 STRS Pre- and Post-Scores- Nick

4.3.2.4.2.2 RQ3 Qualitative Data

Thematic map from interview with Nick's KW is presented. Data extracts from interview are in Appendix KK.

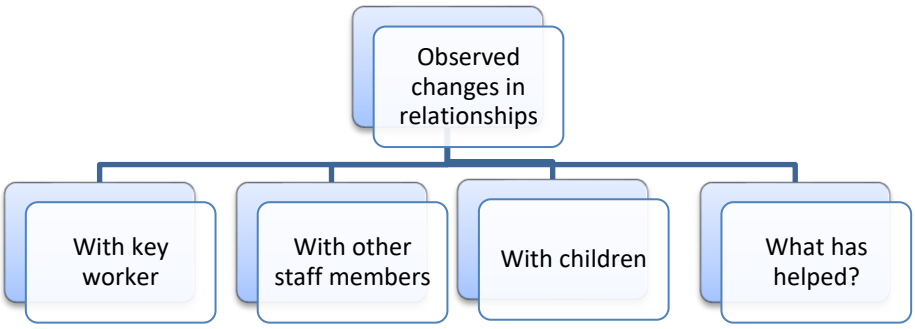


Figure 4-13 Nick – RQ3 Thematic Map

4.3.2.4.3 Summary of Results for Nick

With regards to behaviour, there was a reliable improvement for total difficulties and conduct scores suggesting the KW viewed Nick's behaviour as more positive. There were also improvements in peer problems and prosocial scores, which may indicate some improvements in interactions with others, although these were not found to be reliable so it cannot be ruled out that these changes were due to chance. The SCED findings suggested minimal intervention effect for the target behaviour and the qualitative findings were supportive of Nick's behaviour presenting as quite variable in the nursery. The KW wondered whether the number of children in the groups impacted scores for sitting appropriately, however, analysis of correlation between the two variables did not support this from the data ($r=-0.13$, $n= 22$, $p=0.561$), however perhaps the measures were not completed regularly enough to capture this difference. Similarly to David, there was evidence of Theraplay strategies being used with Nick outside of the Group Theraplay and the KW also highlighted that 'Sunshine Circles' groups on a Monday had a positive impact on Nick's behaviour, making it difficult to determine what may have led to the changes in pre-and post-scores.

Findings show reported changes with regards to the KW's relationship with Nick which includes the STRS showing a reliable improvement in the degree the KW experiences affection, warmth and open communication with Nick (Pianta, 2001) and a reduction in negativity and conflict. This was supported by findings from the qualitative data which showed the KW viewed their relationship as "significantly improved" with Nick inviting her more to join his play. Nick's KW attributed this change to Theraplay and the Nursery in general suggesting that the observed changes are unlikely due to GT alone.

4.3.2.4.4 CS2– Roger

Roger attended all Group Theraplay sessions

4.3.2.4.5 RQ2 Results

4.3.2.4.5.1 T-SDQ Results

Table 4-39 summarises pre and post T-SDQ scores for Roger.

SDQ Category	Pre	Post	Difference	Reliable Change?	CCT Category
Total	25	7	-18	Yes	Improvement
Emotional	1	0	-1	No	No change
Conduct	6	1	-5	Yes	Improvement
Hyperactivity	10	2	-8	Yes	Improvement
Peer Problems	8	4	-4	Yes	Improvement
Prosocial	1	5	+4	Yes	Improvement
Externalising	16	3	-13	N/A	N/A
Internalising	9	4	-5	N/A	N/A

Table 4-39 Pre and Post T-SDQ Scores - Roger

4.3.2.4.5.2 Repeated Measures

Target behaviour for repeated measures was 'Playing Appropriately During Free Time Play'

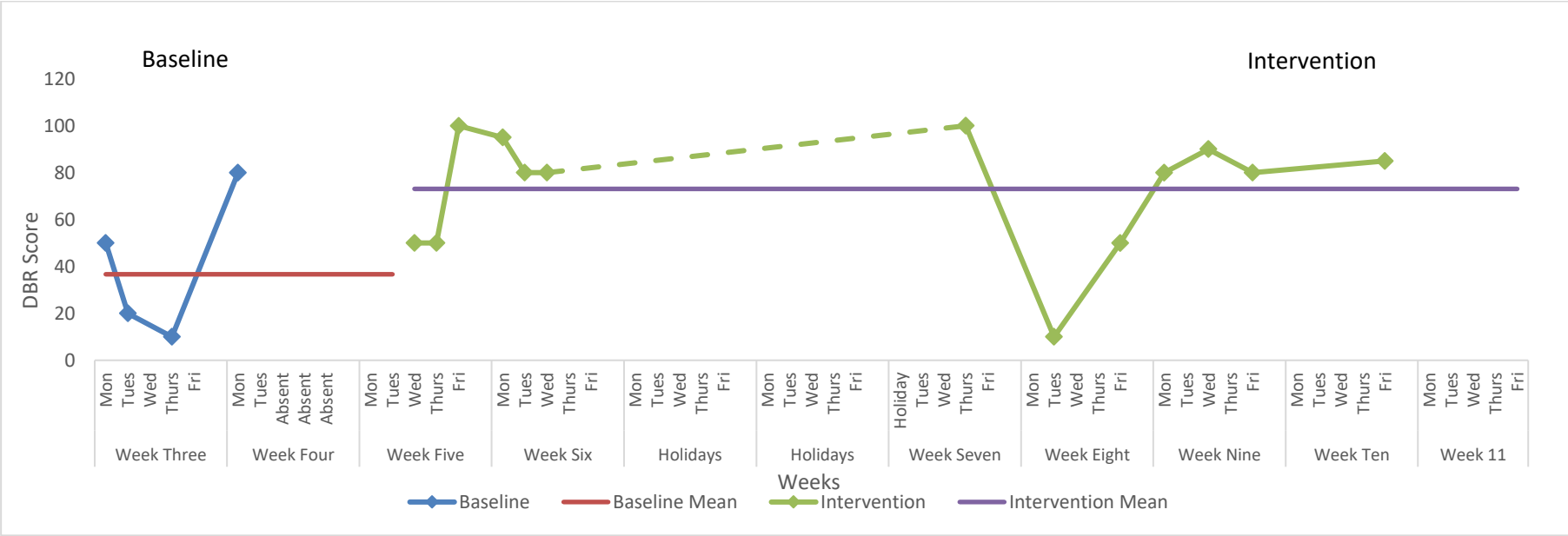
Roger's KW completed 4 observations during the baseline phase and 15 during the intervention phase.

4.3.2.4.5.3 Inter-Observer Reliability Findings

	Percentage of Observations	Intra-Class Correlation Coefficient
TB1	11.76%	0.994 (*P*=.049)

Table 4-40 Intra-Observer Reliability Findings-Roger

4.3.2.4.5.3.1 TB1



Graph 4-15 DBR Score for TB1 across baseline and intervention phases with means - Roger

Tau-U Analysis

	Effect Size (Tau-U)	Confidence Interval (90%)	P-value
Sitting	0.62	0.06<>1	0.07

Table 4-41 Tau-U Analysis-Roger

Level	**Mean Level Change**: +33.08 (improving) **Median Level Change:** +45 (improving) **Relative Level Change:** +45 (improving)
Immediacy of effect	**Absolute Level Change:** -30 (deteriorating) – data points missing
Slope	Baseline has an increasing trend (improving) Intervention had a stable trend
Overlap	There was some overlap of data within the intervention and baseline phase **POD:** 61.54% **PND:** 38.46%
Variability	Data within baseline (range: 70, SD: 31.62) and intervention phases showed large variability (range: 90, SD: 26.02) Data within stability envelope for Baseline – 25% Data within stability envelope for Intervention – 63.23%

Table 4-42 Visual Analysis Findings –Roger

There are mixed findings from the visual analysis. While there is an increase in mean and median scores within the intervention phase, there was already an increasing trend in baseline data. Both data within the baseline and intervention phases show a wide range. Percentage of data points non-overlapping was 38.46% which is low. The TAU-U analysis was also found not significant suggesting minimal intervention effect. Furthermore, there was missing data in both phases and in the baseline phase there was only four datapoints collected which is below the minimum of five datapoints recommended (Horner et al., 2005). Therefore, this data should be viewed with some caution and the limited number of datapoints could affect visual and statistical analysis. This is further explored in section 5.2.

4.3.2.4.5.4 RQ2 Qualitative Data

Thematic map from interview with Roger's KW is presented. Data extracts from interview are in Appendix LL.

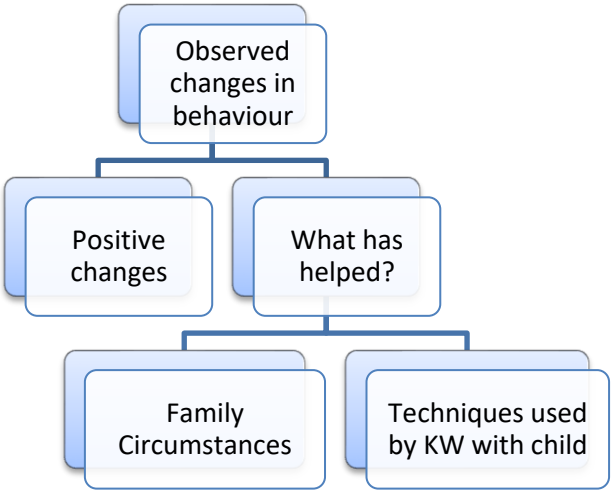


Figure 4-14 Roger--RQ2 Thematic Map

4.3.2.4.6 RQ3 Results

4.3.2.4.6.1 STRS Results

Table 4-43 details pre and post STRS scores.

STRS Dimension	Pre Raw Score (Percentile)	Post Raw Score (Percentile)	Difference	Reliable Change?	CCT Category
Conflict	19 (47)	15 (30)	-4 (-17)	No	No change
Closeness	45 (50)	52 (90)	+7(+40)	No	No change
Dependency	7 (15)	14 (85)	+4 (+70)	No	Deterioration
Total	121 (64)	125 (75)	+4 (+10)	No	No change

Table 4-43 STRS Results-Roger

4.3.2.4.6.2 RQ3 Qualitative Results

Thematic map from interview with Roger's KW is presented. Data extracts from interview are in Appendix LL.

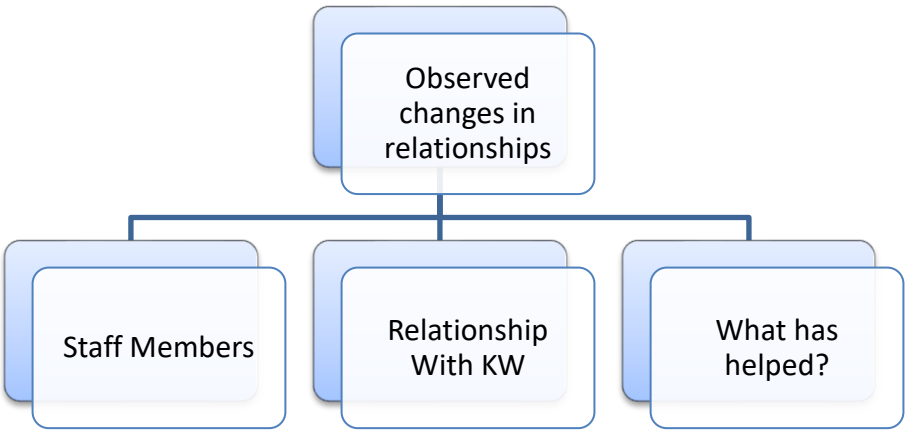


Figure 4-15 Roger - RQ3 Thematic Map

4.3.2.4.7 Summary of Results for Roger

In relation to behaviour, there were reliable changes for total, conduct, hyperactivity, peer problems and prosocial SDQ scores, suggesting the KW perceived there to be less conduct and hyperactivity problems and improvement in his peer interaction. There was, however, minimal intervention effect observed with the repeated measures, although this could reflect the possible limitations of the measure including its implementation and that there was missing data within both phases with only four datapoints collected within the baseline phase (see section 5.2). Descriptions from the KW suggested that they perceived there to be an improvement in his behaviour including playing alongside others better and being able to remain seated within the group. However, the KW's descriptions also suggest that there could still be behavioural difficulties but the way these difficulties are perceived and managed is different, such as using the 'Sunshine Circle' rules. Similar to Nick, there was evidence of the potential impact of the recent Theraplay training and Theraplay strategies being used outside of the Group Theraplay but also within the home environment, making it difficult to determine what may have led to the changes in pre-and post-scores.

With regards to relationships with staff members, the KW reported observed changes of Roger building better relationships. KW also reported them developing a ritual in the mornings in which the KW greets him and says hello before he plays. There was no reliable change in the STRS scores, however, none of the scores were in categories of 'high concern' as described by Pianta (2001) and the KW reported that they viewed their relationship with Roger to already be good.

4.3.2.5 CS2 - Richard

Richard attended all Group Theraplay sessions.

4.3.2.5.1 RQ2 Results

4.3.2.5.1.1 T-SDQ Results

Table 4-44 summarises pre and post scores for Richard.

SDQ Category	Pre	Post	Difference	Reliable Change?	CCT Category
Total	16	9	-5	No	Improvement
Emotional	5	2	-3	Yes	Improvement
Conduct	1	2	+1	No	No change
Hyperactivity	7	3	-4	Yes	Improvement
Peer Problems	3	2	-1	No	No change
Prosocial	1	6	+5	Yes	Improvement
Externalising	8	5	-3	N/A	N/A
Internalising	8	4	-3	N/A	N/A

Table 4-44 T-SDQ Result - Richard

4.3.2.5.1.2 Repeated Measures

Target behaviour for repeated measures was 'verbal communication with same-age peers'. Richard's KW completed six observations during the baseline phase and seven during the intervention phase.

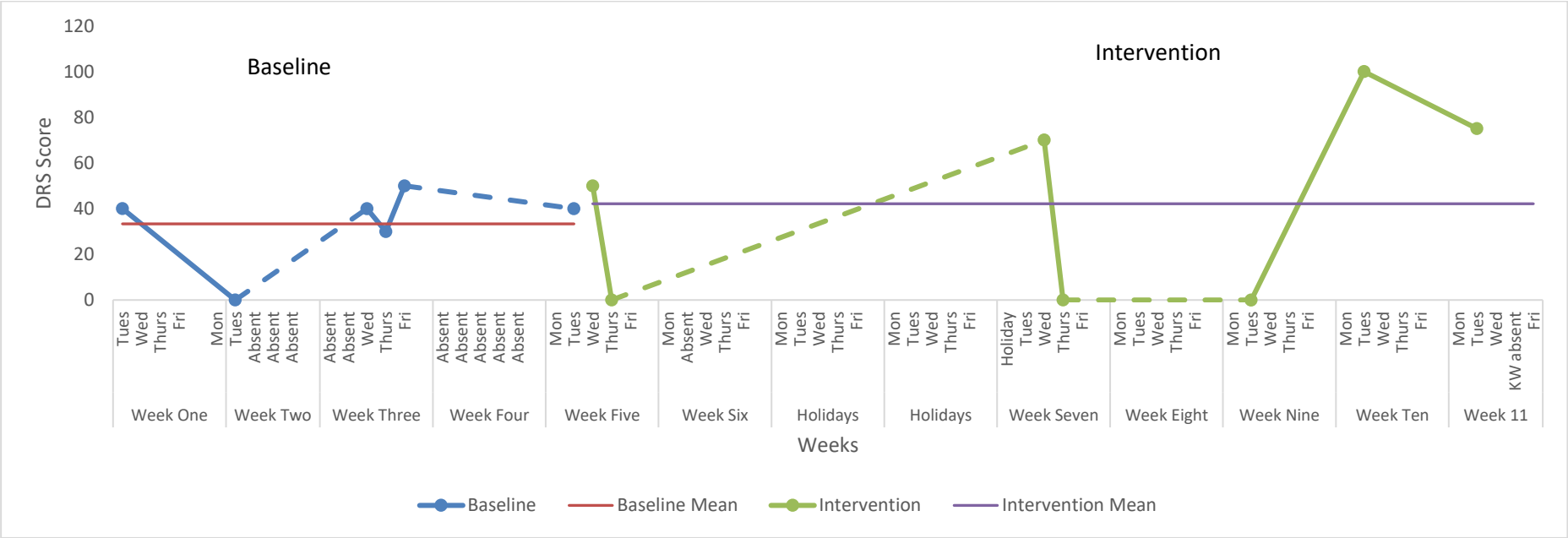
4.3.2.5.1.3 Inter-Observer Reliability Findings

	Percentage of Observations	Intra Class Correlation Coefficient
TB1	15.38%	0.99 (*P*=.070)

Table 4-45 Inter-Observer Reliability Findings- Richard

Intra-class correlation coefficient was not found to be significant. When percentage level of agreement was calculated it was 50%, however it is noted that this method of calculating agreement does not correct for agreements expected by chance (Hallgren, 2012).

4.3.2.5.1.4 TB1



Graph 4-16 DBR Score for TB1 across baseline and intervention phases with means-Richard

Tau-U Analysis

	Effect Size (Tau-U)	Confidence Interval (90%)	P-value
Sitting	0.19	-0.36<>0.74	0.57

Table 4-46 Tau-U Analysis-Richard

Level	**Mean Level Change**: +8.81 (improving) **Median Level Change:** +10 (improving **Relative Level Change:** +10 (improving)
Immediacy of effect	**Absolute Level Change:** +10 (improving)
Slope	The baseline had a stable trend line. The intervention had a slight increasing trend line (improving)
Overlap	There was some overlap of data within the intervention and baseline phase **POD**: 57.14% **PND:** 42.86%
Variability	Data within baseline (range:50, SD: 17.51) relatively stable and did not show too much variability. The intervention phases showed larger variability and instability (range: 100, SD: 42.02) Data within stability envelope for Baseline – 83.33% Data within stability envelope for Intervention – 14.29%

Table 4-47 Richard - Visual Analysis

There are mixed findings from the visual analysis. While there is an increase in mean and median scores within the intervention phase, the range within the intervention phase is high and only a small amount of data is within the stability envelope. Both phases have missing data points. Percentage of data points non-overlapping was 42.86% which could be argued to be low. The TAU-U analysis was also found to not be significant. Overall there appears to be minimal intervention effect.

4.3.2.5.1.5 RQ2 Qualitative Data

Thematic map from interview with Richard's KW is presented. Data extracts from interview are in Appendix MM.

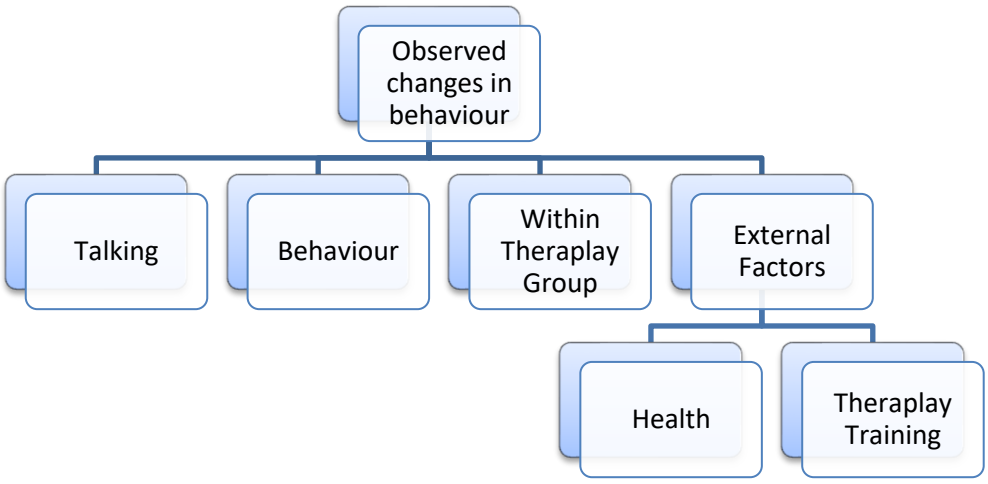


Figure 4-16 Richard-RQ2 Thematic Map

4.3.2.5.2 RQ3 Results

4.3.2.5.2.1 STRS Results

Table 4-48 details pre- and post-STRS scores.

STRS Dimension	Pre Raw Score (Percentile)	Post Raw Score (Percentile)	Difference	Reliable Change?	CCT Category
Conflict	13 (15)	15 (30)	+2 (+15)	No	No change
Closeness	17 (<1)	45 (50)	+ 28 (+50)	Yes	Improvement
Dependency	5 (1)	5 (1)	0 (0)	No	No change
Total	101 (23)	127 (83)	+26 (+ 60)	Yes	Improvement

Table 4-48 STRS Results-Richard

4.3.2.5.2.2 Outcome of Qualitative Data

Thematic map from interview with Richard's KW is presented. Data extracts from interview are in Appendix MM.

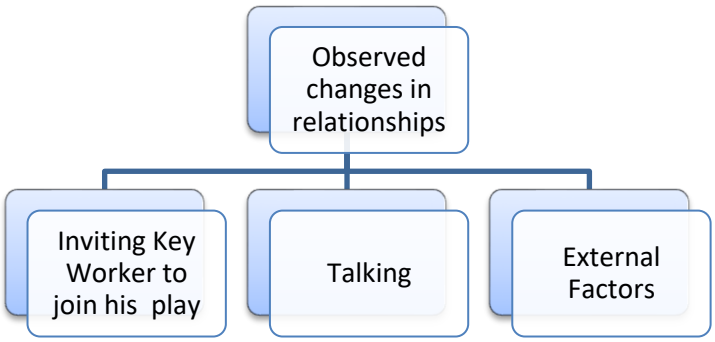


Figure 4-17 Richard-RQ3 Thematic Map

4.3.2.5.3 Summary of Results for Richard

In relation to behaviour, pre- and post-T-SDQ scores showed reliable improvement in emotional, hyperactivity and prosocial scores, suggesting the KW perceived Richard's behaviour as to be less active, experience less emotional symptoms and have fewer difficulties with peers. This is supported by the qualitative findings, in which the KW reported he was talking more and joining in the activities more. However, this was not reflected in the repeated measures which found minimal intervention effect. Health also appeared to be an important factor in impacting Richard's behaviour. Similarly, to the other children additional Theraplay outside of the Group Theraplay appeared to also have a possible influence on his behaviour.

With regards to relationships, findings show a reliable improvement in closeness and total STRS scores suggesting there is an increase in the degree the KW experiences affection, warmth and open communication with Richard (Pianta, 2001). Qualitative data findings are also supportive that the KW viewed their relationship to have improved, and reported Richard inviting her more into his play and him talking more to her or in front of her. However, factors such as health appears to have an impact on his interactions

4.4 Inter-rater Reliability Checks for SCED Graphs

Due to the subjectivity of visual analysis of SCED graphs, inter-rater reliability checks were completed. Following a similar procedure to Brossart et al., (2006) a Trainee Educational Psychologist was asked to make judgements on the graphs (See Appendix PP for instructions) rating on a scale of 1 to 5 how convinced they were the child's behaviour improved between the baseline and intervention phase. A weighted Cohen's Kappa was then completed for all graphs comparing the TEP's and Researcher's ratings (See Appendix QQ for SPSS output). The level of agreement was k= 0.78 which can be interpreted as a good level of agreement (Altman, 1991) and therefore strengthens the findings of the visual analysis.

5 Discussion

Findings related to the three research questions are presented with possible explanations and links to the literature. Strengths and limitations regarding research methodology employed are explored and possible implications for professionals and future research are noted.

5.1 Research Findings Related to Each Research Question

5.1.1 RQ1: How Are Theraplay Interventions Implemented in Education Settings?

5.1.1.1 Implementation of Theraplay interventions in Education Settings

Findings demonstrated two different approaches to implementing Theraplay interventions within education settings.

Settings: In CS1 the intervention was implemented in a specialist primary school, in which the children had not experienced Theraplay before and in CS2 the intervention was implemented in a mainstream nursery in which Theraplay was described as "embedded" within the setting. Within the nursery, staff had completed Theraplay training while the research was being conducted.

These findings are similar to those in the systematic literature review (Francis et al., 2017; Park & Lee, 2014; Salisbury, 2018; Siu, 2014; Tucker et al., 2017) which suggest that Theraplay has been implemented in a range of different settings.

Type of Theraplay Intervention: In CS1 a whole class 'Sunshine Circle' Theraplay group was implemented for all children within the class, although not all children participated. In CS2, the intervention was Group Theraplay, which was used with a smaller group of children and followed a similar structure to 'Sunshine Circles'. The nursery children also received 'Sunshine Circles' with the rest of their peers on a weekly basis separate to the Group Theraplay and staff reported using 'Sunshine Circle' rules and Theraplay approaches throughout the setting.

Findings indicate that while both case studies used Group Theraplay as described in Schieffer (2011) and Munns (2000), the nursery setting differed in that the Group

Theraplay was being implemented in a setting that was embedding a Theraplay approach. Rubin (2010) advises that Group Theraplay in the classroom does not need to be kept within the formal structures of the group and 'Theraplay moments' can be implemented throughout the day. Within the research literature, there is limited evidence of Theraplay approaches being implemented in this way, although there are some anecdotal descriptions within Rubin and Tregay's (1989) book.

Frequency, duration and timing: In both case studies, the intervention was implemented on a weekly basis on the same day and at the same time. Duration of the sessions for CS2 was smaller in comparison to CS1. In both settings at least six sessions had been completed at the time of the evaluation.

Number of sessions implemented in both case studies is smaller to descriptions in the literature (Francis et al., 2017; Siu, 2014; Tucker et al., 2017). There is no clear guidance with regards to number of sessions recommended for Group Theraplay. However, for child-parent Theraplay, Booth & Jernberg (2010) suggest 18-25 weekly 45-minute sessions are needed, and in one study an average of 19 to 20 30-minute sessions were needed before there were observable effect sizes for external and internal behaviour difficulties (Wettig et al., 2006).

Frequency of sessions are similar to the literature (Siu, 2014; Tucker et al., 2017) and what is advised by Rubin (2010). Duration of sessions are also similar to previous research (Francis et al., 2017; Siu, 2014; Tucker et al., 2017b) and the decision to shorten the nursery sessions is supported by Rubin's (2010) recommendations that sessions may need to be shortened depending on the needs and age of the children.

Activities: In both case studies, there were examples of different Theraplay activities used which were informed by the four Theraplay dimensions described in the literature review. The structure of the sessions appeared to follow a similar format to that described in section 3.6.2.1 (Munns, 2009; Schieffer, 2011).

Findings indicate activities implemented were similar to that described in the research literature (Francis et al., 2017; Tucker et al., 2017) and the Theraplay manuals/guidance (Rubin, 2010; Schieffer, 2011). In both case studies there was a

theme of adapting the activities to meet the needs and presentation of the children which was found in Francis et al.'s (2017) study as an important strength of their Theraplay intervention.

In both case studies, activities were reported to be used to help regulate the children's emotions and behaviour. Within Theraplay, the structure of the sessions and 'structure' activities and play activities are argued to support behavioural and emotional regulation (Booth & Jernberg, 2010). It has been proposed that Theraplay supports regulation through targeting of certain brain structures (Lender, 2006; Munns, 2000; Norris & Rodwell, 2017) and from a polyvagal perspective (Booth & Lindamen, 2010; Tucker et al., 2017) by TFs using their open body language to activate the child's 'Social Engagement System' which creates a neuroception (unconscious process of evaluating risk) of safety (Lindamen, 2016). Although as previously noted, the evidence for some of these arguments is questionable.

Use of touch within the nursery setting was also reported by the key workers to be important. . Advocates of Theraplay argue that the intervention is reliant and successful because of the use of touch within the sessions (Munns, 2009; Myrow, 2000; Norris & Rodwell, 2017).

5.1.1.1.1 Conclusion

Findings show in both case studies a Group Theraplay format was used but in different ways, with one setting using it as a separate intervention in the school and another using it as part of a 'package' of Theraplay which was being used throughout the nursery. Structure of the sessions in both settings appeared to generally follow a typical structure, although as noted in 5.2.2.2 there are some limitations with regards to assessing the fidelity of this intervention for this study and could be an area for future research. The main differences between the case studies and the Theraplay literature is the number of sessions completed at the time of the evaluation. This therefore has implications when examining the impact of the intervention which is explored further in sections 5.1.2 and 5.1.3.

5.1.1.2 Facilitating factors in the implementation of the intervention

Use of small groups was reported to help the adults to provide nurture to the children. This is something that is advised within the Theraplay literature (Martin, 2000). Settings also appeared important. CS1 findings indicated the intervention was facilitated by it being completed in a setting in which the staff have knowledge and understanding of attachment trauma. Theraplay is reported to be based on attachment theory (Booth & Jernberg, 2010) and therefore could have fitted within the ethos of the classroom. The school also noted the setting itself was able to accommodate the session, which was like the nursery, in which a consistent room was highlighted as being important.

TFs of the groups were reported to be important. In CS1, the skills of the TF were highlighted as significant and the TA reported that they did not feel they could run the group independently. In CS2, it was emphasised that having two facilitators was important, which is recommended by Martin (2000). The NM described themself as an advocate for Theraplay and appeared keen to ensure the approach was implemented. Findings are supportive of those of Francis et al. (2018) which found the implementation of the intervention was more constrained in settings in which the intervention was not embedded in the school; there was limited time available; and there was a lack of support for teachers.

Within CS2, length of involvement was reported to facilitate the Theraplay intervention. As previously noted, there is some evidence for parent-child Theraplay that longer involvement may be needed before more observable effects are seen (Wettig et al., 2006) and in Francis et al.'s (2017) study it was noted that the length of involvement (which was up to 18 sessions for some children) was seen as a strength.

5.1.1.2.1 Conclusion

Factors identified as being important in the implementation of the intervention included; small group sizes; settings in which staff are knowledgeable about attachment; are supported by leadership and which have rooms to accommodate the

intervention; the Theraplay facilitators' skills (ideally having two running the group); and the length of involvement.

5.1.1.3 Possible barriers to the implementation of the intervention

Barriers to implementation for both case studies were reported to be the availability of education staff. For CS1, the TF noted the teaching staff's presence in the sessions changed due to the staff needing to support other children and this was reported to be difficult for the children. Similarly, in CS2 the NM highlighted that due to her other responsibilities, she would sometimes be pulled away. This compares to Francis et al.'s (2017) findings in which staff reported sometimes feeling constrained by the limited time available for the sessions and the support from teachers.

In CS1, limited time available for the TF to feedback to staff after the sessions was reported. In Francis et al. (2017) one of the mechanisms that was highlighted as supporting the intervention was the opportunity for staff to have consultation with the Assistant Psychologists in addition to the Theraplay intervention.

In CS2, attendance of the children was noted by the NM as a barrier to the intervention, although all four of the focus children for this study did attend all sessions.

5.1.1.3.1 Conclusion

Factors identified to being potential barriers to the implementation of the intervention included; availability of education staff to attend the sessions, time to feedback to staff after the sessions and the attendance of children.

5.1.2 RQ2: Does Theraplay Interventions within an Education Setting have an Effect on Behaviour for Male Students Aged Three to Eleven-Years-Old Identified with SEMH needs?

Findings are summarised for each case study and then related back to the literature.

5.1.2.1 Key Findings for CS1

5.1.2.1.1 Pre- and Post-T-SDQ Measures

For two of the three participants (Angus and Malcolm) there were no reliable changes observed in the pre-and post-T-SDQ scores. For one participant (Brian) there was a reliable change found for emotional symptoms, although remained within the same SDQ category of 'average'.

5.1.2.1.2 Repeated Measures

For two out of three participants (Malcolm and Brian), visual and Tau-U analysis found there was an increase in observations in the intervention phase for the target behaviour 'cooperative play'.

There were no changes observed between baseline and intervention phases for either of the two target behaviours for Angus.

5.1.2.1.3 Interview Data

The TF reported Angus was observed to be playing more with children outside of the sessions, although the TA did not report this. Comments from the interview highlighted factors which may have impacted the children's behaviour including new strategies being implemented within the classroom (Angus); the children's behaviour being influenced by other children (Malcolm); and illness (Brian).

Within the Theraplay sessions the children's behaviour was reported to be variable. Some children were reported to be more accepting of being approached in the sessions and some anticipated the sessions.

5.1.2.1.4 Possible Explanations for Findings

- The intervention may increase cooperative play for some children, however methodological limitations of the study means this finding is only tentative.
- Lack of changes observed for the other two target behaviours and the T-SDQ score may mean the intervention is less effective for addressing 'problem behaviours'.
- Lack of changes in pre-and post-T-SDQ scores could be due to the measure not being sensitive enough
- The intervention may not have been long enough to have had an impact on outcomes.
- The teacher did not have a significant involvement in the intervention. Therefore they may have not observed some of the behavioural changes in the children the TF had, or they did not have an opportunity to use the Theraplay techniques with the children.

5.1.2.1.5 Links to Literature

T-SDQ findings are similar to Francis et al. (2017) who found little changes in post SDQ scores and suggested that the SDQ may have not been sensitive enough to identify the changes that the qualitative data indicated had happened. However, they contrast with Salisbury's (2018) findings which reported positive improvements to SDQ scores, although a different version of the intervention was used.

In Salisbury's (2018) study, the teaching staff who completed the pre-and post-questionnaires were involved in the intervention, unlike CS1 in which the teacher was reported to have little involvement. This may mean the teacher was more objective because they have had less investment in the intervention. It may also mean they did not have opportunity to use some of the Theraplay techniques with the children which could have restricted building a 'therapeutic alliance' with the child (Myrow, 2000) or have joint experiences with the children which is argued to help them feel more accepted within school (Martin, 2000; Schieffer, 2011). Martin (2001) suggests the purpose of Theraplay sessions within classrooms is to help bring children and teachers together, which can be difficult if the teacher has limited presence.

In relation to the repeated measure findings, there were observed changes in cooperative play for two children during the intervention phase. The findings are in line with the theoretical positioning of GT and 'Sunshine Circles', which is argued to help children build relationships (Martin, 2001; Schieffer, 2011), increase attachment among peers and build a sense of belongings and acceptance (Munns, 2000). They are also supportive of the theoretical arguments regarding the benefits of play including helping children to develop social skills by supporting them to develop an understanding of different perspectives, as well as helping children to develop moral understandings of cooperation (Golinkoff, Hirsh-Pasek, & Singer, 2006; Schaefer & Drewes, 2010).

There has been no Theraplay research in educational settings examining cooperative play per se, however, there have been some studies examining the impact of Theraplay interventions on children's social skills. Park and Lee (2014) reported an increase in peer competence for the children who attended the Theraplay intervention and Salisbury (2018) described an increase of children responding constructively to others. Siu (2014) also reported an improvement in social skill abilities for children in the Theraplay experimental group measured by a questionnaire although no differences were found in the observation measures of children's interactions with peers. However, Francis et al. (2017) only found a significant change in pre- and post-social SDQ scores for girls and not boys, although their qualitative data suggested there was an increase in positive relationships with peers.

It cannot be ruled out, given the findings of the interview data, that the repeated measures findings are type 1 errors due to design and measurement error, explored further in section 5.2. However, it may also be that the advantages of the video recording and an outside perspective captured a change that may not be easily noticeable to staff working with the children daily. It therefore could be that the child's behaviour changed, however the teaching staff's perception of the behaviour did not.

The study found a minimal intervention effect for the other target behaviours of the two children, Malcolm and Brian, and a minimal intervention effect for Angus for both target behaviours. One possible explanation is that GT is not as effective for such behaviours in comparison to cooperative play. Francis et al. (2017) suggest from their comparison of findings between GT and one-to-one Theraplay with a key adult, the GT could be a more preventative model of intervention. Salisbury's (2018) findings are supportive of this, which found improvement in SDQ scores for one-to-one Theraplay interventions. It therefore could be that the GT is not as well suited for addressing such behaviours such as shouting out or intrusion of personal space, but is suited for helping children to play more cooperatively. However, there is some Theraplay research to suggest that the intervention in schools does have a positive impact on problem behaviours (Park & Lee, 2014; Tucker et al., 2017) although the measures used in those studies were questionnaires, in contrast to this study which included observational data.

It could be that some of the target behaviours identified by staff were behaviours that were not consistent to being monitored over a period of time. For example, some behaviours identified by staff for some children were not observed during any of the video recordings. This was a methodological limitation of the observations. It could also be an indication that target behaviours, such as those identified for the research, may not be stable and change over time.

In addition, there was also evidence that other factors such as illness and other children's behaviour in the setting had an impact. This is similar to the findings of Francis et al. (2017) which found that context of the care setting and the school system had an impact on children's behaviour.

5.1.2.2 Key Findings for CS2

5.1.2.2.1 Pre- and Post-T-SDQ Measures

With regards to pre- and post-T-SDQ scores, there was an increase in at least one of the SDQ subscales which was found to be reliable, according to the RCC (Evans, 1998b) and classified as an improvement, according to the CCT criteria set, for all of the children:

- Brian - reliable improvement for conduct subscale
- Nick – reliable improvement for total T-SDQ score and conduct subscale
- Roger – reliable improvement for total, conduct and hyperactivity
- Richard – reliable improvement for emotional, hyperactivity and prosocial subscale scores.

5.1.2.2.2 Repeated Measures

Visual and Tau-U analysis of the repeated measures suggests there was no change in the target behaviours for all four children during the baseline and intervention phase.

5.1.2.2.3 Interview Data

The TFs of the Theraplay Group reported that there had been positive changes in the behaviour observed for the children within the group and the children presented as more confident and more willing to participate in the group. However, it was noted there was also some variability in their presentation, and home factors did have an impact on their behaviour.

With regards to behaviour outside of the Theraplay Group, the TFs reported the children presented with increased confidence and for one child they had been observed to be talking more.

For the four focus children, there were positive changes reported by the children's KWs for two of the children; Roger was reported to be playing better alongside other children and Richard was reported to be talking more and joining in with activities. Interestingly, these improvements were not reflected in the repeated measures of 'playing appropriately during free time play' and 'verbal communication with same aged peers'.

For the other two children, their behaviour was reported to be more variable although it was noted there were less tantrums for David, and Nick became less upset when a child tried to take his toy.

For all four children, external factors appeared to have an impact on the children's behaviour. In particular, the use of Theraplay outside of the GT including; the staff having recent training in Theraplay; KWs reported to be using Theraplay techniques with the children outside of the group; and the children attending 'Sunshine Circles' session with all the children in the nursery on a Monday was repeatedly mentioned. Furthermore, factors such as home circumstances and health also appeared to have an impact on the children's behaviour for three of the children.

5.1.2.2.4 Possible Explanations for Findings

- SDQ and interview data may suggest the intervention does have an effect upon children's behaviours, however, not for all behaviours or for all children.
- The changes in pre-and post-SDQ scores could be a reflection of maturation and history effects. It could also be a result of outside factors such as the staff having training in Theraplay
- There could be changes in the key workers' perceptions of the children's behaviour rather than a behaviour change.
- The SCED data may not have showed any changes due to methodological limitations and the possible complexity of behaviour
- More positive changes may have been observed in comparison to CS1 because it is part of a package of Theraplay in the setting.

5.1.2.2.5 Links to Literature

Overall, the findings suggest that KWs appeared to perceive there was difference in the children's behaviour post-intervention which was reflected in the interview findings and the SDQ scores. In contrast to the findings from Francis et al. (2017) study, there were changes in at least one subscale for the SDQ scores for all four children. However, there was also some variability in outcomes with regards to the children's behaviour, with some KWs observing more changes than in others.

One of the themes gathered from the interview data was that the children were presenting as more confident within the sessions and in the nursery. This compares to Francis et al. (2017) in which education staff reported that the children presented with an increase in confidence and self-esteem after taking part in the Theraplay

intervention. The increase in confidence may be due to the positive impact play can have including the opportunity to experience positive feelings (Bomber & Hughes, 2013; Schaefer & Drewes, 2010). Within Theraplay, 'challenge' activities help support children to be brave enough to 'have a go' which helps them build their sense of mastery and confidence (Booth & Jernberg, 2010)

For two children, KWs reported there had been positive changes in the child's target behaviour, but this was not reflected in the repeated measure findings. It is possible that the child's behaviour had changed but was not captured due to methodological limitations which are discussed more in section 5.2

The interview data findings from the two TFs suggest that more changes in the children's presentation was observed within the sessions than outside of the sessions. It may be that the intervention helps improve behaviour within the intervention, but this does not translate to the classroom setting or more time is needed for the behaviours to generalise to the classroom.

Currently the evidence base for Group Theraplay in education settings is limited and it is possible that the intervention has not had an effect upon the children's target behaviour. While efforts were made to reinforce the analysis of the pre-and post-SDQ scores through the use of the reliable change criterion and the crossing clinical threshold, threats of validity including regression to the mean and maturation cannot be ruled out. It could be that the scores would naturally have changed without the intervention. This is particularly so given the children are at ages in which there is rapid physical, emotional and cognitive development (Egger & Angold, 2006).

It is also possible that there were changes in the children's behaviour, but these were due to the influence of other factors and not just the GT. For example, in the interviews with the nursery staff, there was a consistent theme of them using Theraplay throughout the setting and several KWs cited the recent Theraplay training they had undertaken as being positive. This is similar to Tucker et al.'s (2017) findings which indicated from qualitative data that teachers trained in Group Theraplay perceived and managed the children's behaviour differently in comparison to those

in the control group who were not trained. The authors wondered whether this was due to content of the training which includes information about trauma and brain development, but also because the intervention offers the teachers opportunities to interact with the children in a supportive and caring manner which may shift their perceptions (Tucker et al., 2017). Therefore, the discrepancy between the repeated measures and the SDQ scores/interview data may indicate the children's target behaviour has not changed itself, however, the staff's perception and understanding of the behaviour could be different since the start of the intervention.

Nursery staff also discussed that Theraplay was embedded within the setting and this may have had an impact on the children's behaviour, which may explain why the differences were not seen within the SCED data. Within the literature, there are arguments that support that children should be embedded across the school context adopting a whole school approach in comparison to interventions done in isolation (Hickey et al., 2019; Webber, 2017). Similarly, to CS1, other factors such as home circumstances were also noted as having an impact on the children's behaviour, which may explain the variability of findings. Also, like CS1, the number of sessions completed were less than what is recommended as noted in Section 5.1.1 and therefore there may have not been enough sessions to have had an impact on the children's behaviour.

Finally, the possibility of biases in the interview data cannot be ruled out from both the researcher and the KWs. This is explored further in section 5.2.

5.1.2.3 RQ2 Conclusion

Due to methodological limitations, explored in 5.2, any conclusions with regards to the effectiveness of Theraplay interventions on children's behaviour in education settings is tentative and speculative. The results are, however, promising that the intervention may have a possible impact on cooperative play for some children in one case study, and a possible impact on education's staff's ratings and perceptions of the behaviour in the second case study. The findings also raise questions and areas that could be further explored in future research including the differences between interventions that are embedded as in CS2 and ones that are not.

5.1.3 RQ3: Does Theraplay intervention have an effect on student-teacher relationships for Male Students Aged Three to Eleven-Years-Old Identified with SEMH needs?

5.1.3.1 Key Findings for CS1

5.1.3.1.1 Pre- and Post-Measures

There was a reliable change in conflict, closeness and total scores for Angus, suggesting that the teacher viewed their relationship as being less negative and conflictual. However, scores for closeness and total subcategories remained within the 25 percental indicating possible areas of concern (Pianta, 2001). There were no reliable changes for the other two children.

5.1.3.1.2 Interview Data

Interview data suggests that there were no changes observed in the student's relationship with the school staff and that the children were already reported to be close to the school staff. The teacher who completed the pre-and post-questionnaire data was not interviewed and therefore it is unclear as to his views with regards to his relationship with the children.

5.1.3.1.3 Possible Explanations for Findings

- No changes in student-teacher relationship due to staff's attendance in the Theraplay sessions
- There were changes but the measures did not capture this
- No changes in student-teacher relationship because the intervention did not address this

5.1.3.1.4 Links to the Literature

The outcome of the findings could reflect school's staff attendance in the sessions. GT is argued to help support relationships through the use of play and opportunities to experience shared joy (Booth & Jernberg, 2010; Tucker et al., 2017). Therefore, if staff did not attend the sessions, then the opportunities to experience this are reduced.

Given the argument that student-teacher relationships and behaviour are suggested to be correlated (Bergin & Bergin, 2009), it is surprising that the one child who showed some positive improvement in their relationship with the teacher showed no changes with regards to behaviour for both SDQ data and the repeated measures. This therefore may be an indication of the limitations of the behaviour measures. However, the child's scores were still within percentiles that would indicate concern according to the STRS manual (Pianta, 2001) and therefore may have not improved enough to reflect changes in their behaviour or changes in the teacher's perception of their behaviour.

It is also possible that there were some changes in the children's relationship, but the STRS measure did not capture this effectively, given the limitations of pre- and post-questionnaire data. It may also be that if another staff member who had attended the sessions consistently completed the questionnaire, there could be a different finding.

5.1.3.2 Key Findings for CS2

5.1.3.2.1 Pre- and Post-Measures

There were mixed findings with regards to pre- and post-scores for STRS:

- With regards to the STRS category of **conflict,** one child showed a reliable decrease in conflict scores (David) and another showed a change in CCT category (Nick).
- Two children showed a reliable increase in **closeness** scores (Richard and Nick).
- Three children (David, Nick and Roger) showed a change in CCT category for **dependency** scores indicating a 'deterioration' as the scores moved into the 75-100 percentile boundary, although none of these changes were found to be reliable.
- For **total** scores, one child showed a reliable improvement (Richard) and another child showed a change in CCT category indicating improvement, although this was not identified reliable (David).

- For one child there were no reliable changes for conflict, closeness and total scores, however it is of note that none of the pre-scores were in the top or bottom percentiles, so would not be identified as areas of concern (Pianta, 2001).

5.1.3.2.2 Interview Data

Overall, all four KWs reported positive changes in their relationship with the children including one child being more accepting of nurture from the KW (David), reporting to have a stronger and improved relationship (Nick), having a greeting in the morning (Roger) and inviting the KW to join in their play more (Richard). KWs also cited other factors that could have had an impact on their relationship other than the Group Theraplay including 'Sunshine Circles' (David), the nursery in general (Nick) or external factors such as the child's recovery from illness (Richard).

5.1.3.2.3 Possible Explanations for the Findings

- Intervention has had an impact on student-teacher relationships
- The change in scores could be due to maturation or due to other factors such as the Theraplay training.

5.1.3.2.4 Links to Literature

The STRS scores and interview data suggest there has been a positive change in KW's perceptions of their relationship with the children, although there are some individual differences to those changes. Theraplay is argued to help support children to build relationships with adults, by the adult showing that they are in charge and are there to look after the child and take care of them (Booth & Jernberg, 2010). In particular, it is proposed that 'nurture' activities help the child to learn that adults are safe and the children themselves are worthy of care (Booth & Jernberg, 2010). Within the interview data, two of the KWs and the NM spoke explicitly about providing nurture to the children within the setting. This could be an indication of the Theraplay being embedded within the nursery and therefore it is unlikely that the change in scores are due just to the GT. As discussed previously, changes in pre-and post-scores could be due to maturation changes or regression to the mean, and therefore requires cautious interpretation of findings. The change in scores are in line with Salisbury's (2018) findings which reported an improvement in closeness scores for

4/5 children and a decrease in conflict scores for all children, although these were not found significant.

Interestingly, a deterioration was found for dependency scores for three of the children, although based on the RCC, these changes would not be considered reliable. Therefore, this could be an indication that the scores were already high, but not within the 75-100 percentile, a possible reflection of the limitation of focusing on CCT category changes (Wolpert et al., 2015). However, the change of scores may indicate that KWs viewed the child to have increasing dependency on them. While typically, scores between the 75 and 100 percentiles would indicate an area of concern, Pianta (2001) suggests that this is not always the case particularly for younger children. The increase in dependency is in line with some arguments within the attachment literature that healthy dependency is needed to help support the child's interdependence (Bombèr, 2011).

It is of note, that unlike Salisbury's (2018) research, the findings are only from the perspective of the adult and not of the child. Therefore, while the adult's perception may be more positive, this may not be reflected by the child (see section 5.2.3.3).

5.1.3.3 RQ3 Conclusion

Due to methodological limitations, which are explored in 5.2, any conclusions with regards to the effectiveness of Theraplay interventions on student-teacher relationships is speculative. Within CS1, there appears to be little change reported with regards to student-teacher relationships, although the teacher who completed the questionnaires did not consistently attend the Theraplay sessions. However, qualitative data also did not find any reported changes with regards to student-teacher relationships. In contrast, within CS2 there were reported changes to relationships and changes in STRS scores, however the influence of external factors such as the intervention being embedded within the nursery and training, mean that it cannot be concluded that any changes observed were due to the intervention.

5.2 Evaluation of Research Methodology

5.2.1 Evaluation of Study Design

5.2.1.1 Case Study

A multiple-case-study design can provide understanding with regards to implementation and evaluation of interventions (Yin, 2018). The design enabled an exploration of how two different Theraplay interventions were implemented, in different settings and with a different population of students highlighting the importance of contextual issues. This is important given there is little research with regards to Theraplay interventions within these settings and particularly within the UK.

However, the implementation of multiple case study research can be challenging for a single researcher with constraints of resources and time availability (Jennifer, 2002; Yin, 2018) and it is acknowledged that some aspects of the case study could have benefited from further exploration (such as the context of each case study), however this was not possible in the timescales of the research.

Limitations of case study research include that this type of research can have an unintended impact on situations and people (Walker, 1983) and this is an ethical consideration that is acknowledged. Asking Key Workers (KWs) to focus on specific behaviours of the children could have had unintended consequences such as a change in management of that behaviour. However, the monitoring and reviewing of behaviours is normal for the KW's role within the setting. Case studies can also be open to personal biases and subjectivity (Walker, 1983).

Consideration of Yin's (2018) five criteria for case study research designs (as detailed in section 3.5.6) offers some evaluative insight. In particular it is acknowledged that the propositions of the case study are vague and may have benefitted from a narrower focus. For example, rather than a proposition that 'Theraplay could increase positive behaviours', the development of a proposition on one element of behaviour that has been argued to have been supported by Theraplay interventions (such as social communication, (Sie, 2014)) could have led data collection to be more

specific and provided more detailed insights. Furthermore, the term 'positive behaviours' is subjective and is open to interpretation.

A further limitation is the definition of the cases and unit of analyses used in the study. Yin (2018) suggests one of the pitfalls of embedded case study research is that the case study analysis focuses on the unit of analysis (in this case the participants) and fails to return to the 'case'. Within this study, an attempt was made to focus on the implementation of the Theraplay intervention in each school and look at the overall impact which was why staff members and Theraplay Facilitators were interviewed about the overall implementation and impact of the intervention (as well as the impact for the individual participants). However, it is acknowledged that the focus on the SCED design means that there was a lot of focus on the individual participants that had been selected for this study.

Although there was some consideration of rival explanations during the design process, it is acknowledged that more could have been done at this stage which may have influenced some of the data gathered. In particular, more information with regards to the context of the schools (e.g. political factors) may have helped to explore rival explanations such as 'super rival' and 'societal rival' which suggests that forces larger than the intervention and social trends could account for the results (Yin, 2018). While in Section 5.1. alternative explanations for the findings of the three research questions are further explored, Yin (2018) notes that consideration of rival explanations after the findings are gathered will help justify future studies but it is preferable to have made considerations of these at the design stage of the research.

5.2.1.2 Mixed Methods

Mixed methods designs enable the strengths of qualitative and quantitative methods to be combined providing stronger evidence through the convergence of findings (Johnson & Onwuegbuzie, 2004). Within this research, the combination of methods provided a more holistic picture with regards to the impact of the Theraplay intervention. However, it is acknowledged, the overall design has probably favoured a more quantitative approach.

5.2.1.3 SCED

5.2.1.3.1 AB design

A SCED was selected because the methodology enables research to be completed with small samples and provides information with regards to individual people's response to interventions which may be lost in group designs (Cakiroglu, 2012; Horner et al., 2005). Difficulties in recruitment for the study and the findings showing a variety of outcomes for the participants, provides support that this was a suitable choice of methodology.

The AB design has limitations with regards to experimental control and is open to threats to validity such as history effects (Horner et al., 2005; Robson & McCartan, 2016). However, this was the most suitable design given time availability, the researcher having little control with regards to when the education settings would be implementing the intervention, and as described in section 3.5.8.2 other designs such as the multiple baseline design not being suitable.

5.2.1.3.2 Baseline Phase

At least five data points were collected for all participants, apart from TB2 for Angus, Brian and Roger meeting the minimum suggested requirement (Horner et al., 2005; Kratochwill et al., 2010). However, the repeated measures were not completed at the frequency and regularity that was originally planned. This meant that for most participants, a stable baseline was not identified and for four participants (Angus, David, Nick and Roger) a baseline was demonstrated in the direction of the intervention making it difficult to document if the intervention had an effect on the focus behaviours (Horner et al., 2005).

5.2.1.3.3 Missing Data

There was missing data in the frequency of planned observations for both case studies, and weeks of missing data due to limited staff availability and a school holiday. This therefore is a limitation in the analysis of the repeated measure findings. As previously noted, there were fewer than the recommended five datapoints (Horner et al., 2005) collected for Angus, Brian and Roger in at least one of the phases of the SCED data. Five datapoints are recommended to ensure that valid and reliable

visual analysis can be completed. Therefore, the findings from the SCED data needs to be viewed with some caution and definite conclusions with regards to the impact of the intervention based on this SCED data alone cannot be made for those participants. However, it is of note, the SCED data was triangulated with other sources of data including pre- and post-questionnaires and interview data, to help manage some of these limitations.

The researcher attempted to manage difficulties with regards to the missing data by keeping in regular contact with education staff. However, due to factors outside the researcher's and education staff's control (such as staff sickness) it was not always possible to collect the data as planned. More accurate data collection could have occurred if the researcher had completed the data collection themselves, however as noted in Section 3.8.3.1.1, it was originally planned for the education staff to complete the majority of the observations to reduce the threat of reactivity. The challenges occurred in this data collection could be argued to be reflective of the complexities of completing research in real life settings (Robson & McCartan, 2016).

5.2.1.3.4 Analysis of Data

SCED data was analysed using two methods; visual analysis and statistical analysis. Visual analysis can have issues of subjectivity (Kazdin, 2018) however a 'good' level of agreement was found between a TEP's ratings of the graphs and the researcher's ratings. Statistical analysis also provided a more comprehensive understanding of the data.

5.2.1.3.5 SCED Measures

As there is often a range of presentations in children with SEMH needs (Dolton, Adams & O'Reilly, 2019), the measures for the SCED data were designed to match the personalised and individualised needs of the children. Through discussions with education staff, areas of difficulty and their hopes as to what the Theraplay intervention may improve were identified and measures were created and adapted based on these discussions.

However, it could be argued that some of the measures chosen may not be considered a valid or reliable indicator of the effectiveness of Theraplay. For example, the target behaviour of 'vocalisations' was created for Brian due to school staff's concerns with regards to his communication with others. While this behaviour could reflect SEMH needs in relation to social communication, it could also be indicative of other needs such as expressive language skills. Furthermore, while advocates of Theraplay report that the intervention can help improve children's relationships with others (Schieffer, 2011) it does not specifically state improvements in children's vocalisations. Therefore, a lack of findings showing improvements in the children's behaviours maybe reflective of the wrong repeated behavioural measure being chosen rather than the intervention not being effective.

An alternative measure that could have been used is the Direct Observation Form (DOF, McConaughy & Achenbach, 2009) which has been used as a repeated measure in a number of single case experimental studies examining the impact of play therapy on behaviours within the classroom (e.g. Meany-Walen & Teeling, 2016; Robinson, Simpson, Hott, 2017). The measure provides numerical information on different behaviour scales such as 'intrusive', 'total problems', 'ADHD', 'hyperactivity-impulsivity', however the researcher did not use this in the current study due to length of time to complete the measure and the expense in purchasing software to calculate the measure's scores. Another alternative could have been to have created a measure more directly linked to Theraplay's reported objectives, for example creating a repeated measure based on nurture/structure/engagement and challenge behaviours (see Section 2.4). However, this would have likely needed a pilot stage to help develop the measure to improve its reliability and validity which was not possible in the timescales of the research. Further limitations of the observational measures used are explored in sections 5.2.3.1 and 5.2.3.2.

5.2.2 Evaluation of Intervention

5.2.2.1 Length of intervention

As noted in section 5.1.1.1 the length of the intervention in both case studies was shorter than what has been previously completed in Theraplay research. Therefore,

it cannot be ruled out that the minimal intervention effect found for some participants may be due to not enough Theraplay sessions being completed before an effect is seen. This is particularly relevant for CS1, in which the TF stated they planned to continue with some more sessions after the data had been collected.

5.2.2.2 Intervention Fidelity

Theraplay is not a manualised intervention and this could arguably make monitoring the fidelity of the intervention more challenging. The researcher is not aware of a fidelity measure developed by Theraplay and therefore created a checklist based on their personal experience and Theraplay literature. Despite efforts to make the checklist simple to complete, not all sheets were received in CS2. Furthermore, the checklist may have benefited from some input from a Theraplay Practitioner and trialling it in another setting. In addition, the activities the facilitators wrote that they completed with the children could have been implemented in a non-Theraplay manner. For example, completing the activity 'balloon tennis' without consideration of the dimensions of structure and challenge. These dimensions themselves are difficult to define in an operationalised manner suitable for observation. This is an area that will be further explored in implications for future research.

The decision not to observe Theraplay sessions was made due to ethical considerations and concerns that it could be a potential barrier for school's engagement in the research. However, observations may have enabled a more thorough understanding as to what these sessions look like and as to whether they followed Theraplay guidance. Some facilitators choose to video record their Theraplay sessions as part of their supervision requirements of the practicum. Therefore, it could be that in future research these video recordings are used to examine the implementation of the Theraplay intervention. However, there is always a possibility that the facilitator's behaviour could change in these sessions because they have an awareness that they are being recorded.

5.2.2.3 Threat to Validity - History

In both case studies, there was evidence there were changes in the participant's environments impacted the findings. Particularly in CS2, there was a strong theme

from both the TF and KWs that recent Theraplay training, the implementation of Theraplay strategies across the nursery setting and the 'Sunshine Circle' group, had a potential impact on the understanding and management of the children's behaviour. While this is reflective of the challenges of completing research in a real-life setting and has made reaching a conclusion of the impact of the TG more challenging, it has helped to capture how Theraplay is used in different educational settings.

5.2.3 Evaluation of Measures

5.2.3.1 CS1 Observation Measures

Video recordings in CS1 enabled the researcher to examine directly what the children were doing (Teddlie & Tashakkori, 2009) and reduced the likelihood of issues such as observer drift (Cotton et al., 2010).

The researcher revisited at least 20 percent of the videos for each target behaviour for intra-reliability checks which showed a high level of agreement. However, the percentage of videos for inter-reliability checks was less than the 20 percent planned, and while most of the checks showed a substantial level of agreement, one behaviour ('intrusion of personal space' for Malcolm) only showed a moderate level of agreement. Despite attempts to ensure there was an operationalised definition, this behaviour was difficult to capture due to the context of the videos (which sometimes included a soft play area setting and therefore involved a lot of touch between the students) and the camera angle making it difficult to accurately interpret the distance between Malcolm and the other children. Furthermore, for other behaviours such as cooperative play, the measure did not always capture the complexity of the behaviour. There were instances in which Malcolm appeared to make attempts to play cooperatively with his peers, but this was not reciprocated, leading to the play being recorded as parallel. For Angus, who showed little verbal communication, it was sometimes difficult to interpret whether some of the behaviours such as hiding was part of a game or if he was playing independently. Watching some of the videos with the staff could have provided some context to the videos, although this could have increased subjectivity.

Staff members completed the video recordings because they were familiar to the children and the children's behaviour was more likely to be natural. However, staff were not able to complete the frequency of video recordings planned, and although the researcher offered to complete some, this was not agreed to. There was a mixture of the recordings being completed in different settings within the school, such as the classroom and the soft-play area which could have impacted the children's behaviour as well as variety of activities including free-play, adult-directed play and learning tasks. While regular and frequent measures may have accounted for this difference, because there was a lot of missing data it makes interpretation more difficult. It may have been helpful to have agreed on one setting for the recordings to have taken place, however this would not have been representative of the children's behaviour across the school day. Staff members did not complete the recordings on the days and times that had been initially planned. Therefore, there is potential for staff to have recorded only what they wanted the researcher to see. Length of recordings was initially planned to be 10 minutes for each child, however, this was not achieved consistently and there was a large variability in times and therefore a further limitation.

The extended baseline length, due to school delaying the intervention, enabled the children and staff to become more familiarised and desensitised with the equipment which may have reduced the likelihood of them changing their behaviours while being recorded. However, as previously noted, a target behaviour for Angus was not observed in any of the recordings. It is not clear if this was due to him being recorded or a maturation of behaviours. Staff members were asked to closely monitor the children to check that no undue stress was being caused by the recordings, and when the researcher was not clear if Angus's behaviour was an indication of him not wanting to be recorded, the researcher spoke to and emailed staff members who reported that the behaviour was typical.

5.2.3.2 CS2 Observation Measures

The DBR is quick to complete, which suited the busy nursery environment and its ease of use may reflect why there was a greater number of observations completed in

comparison to CS1. Observations were completed by KWs who were familiar to the children which increased the chances that the children's behaviour was more natural. Some inter-observer checks were completed but more could have been done to increase confidence of the measure. The measure was positively worded as the researcher was concerned about the ethical implications of asking the KWs to monitor negative behaviours. Length of the observation was 10 minutes which reduces possibilities of observer drift.

However, the implementation of the measure itself may have impacted the children's behaviours. Kazdin (2018) suggests that ongoing assessment and feedback itself can lead to therapeutic change. Therefore, it is possible that KWs completing the DBR scale on a regular basis, may have made them more focused on the child's behaviour, influencing perception and management of behaviour.

While there is evidence to support the validity and reliability of the standard DBR forms (Miller et al., 2017) its use in this study was not the standardised one, but one in which the target behaviours were selected after a discussion with the KWs. This means the validity and reliability of the measurement is unknown. One study has suggested that the wording and specific behaviours selected for the DBR can have an impact on the ratings completed and therefore argue that it cannot be assumed that having an well-operationalised observable behaviour is enough and that empirically examination before developing the DBR scale is needed (Riley-Tillman, Chafouleas, Christ, Briesch, & LeBel, 2009). Furthermore, teachers and psychology research assistants can give different ratings to the children's behaviour (Briesch, Chafouleas, & Chris Riley-Tillman, 2010). The reliability and validity of the measure therefore may have been increased if a pilot study had been completed.

Some target behaviours selected were already showing high percentages in the baseline, suggesting that the behaviour identified by KWs may not have been as much of a concern when initially discussed. If there had been more time, the target behaviour may have been changed, however the researcher did not want to delay the start of the intervention.

In addition, there was missing data for all children. If the measurement was taken every day which is recommended by Miller et al., (2017) a more detailed pattern of behaviour could have been observed.

5.2.3.3 Pre- and Post-Measures

Pre- and post-measures can provide triangulation to observational and interview data. Advantages of the T-SDQ include that it has been used in previous studies, it is relatively simple to complete and there was 100% return rate on the questionnaires. However, the measure only examines the perceptions of behaviour, in contrast to observations which examine directly what people are doing (Teddlie & Tashakkori, 2009).

A strength of the STRS is that the three categories have been related to some of the attributes of an attachment relationship (Kennedy & Kennedy, 2004; Verschueren & Koomen, 2012), and given the focus on attachment in Theraplay, this appeared to be an appropriate measure. The measure also captures the feelings the teacher has towards the child which an observational tool would not do (Doumen et al., 2012) and has been used in other research (Salisbury, 2018). However, similarly to the SDQ, the measure is open to biases such as response bias and social desirability bias (Doumen et al., 2012). There are currently limited observational tools for measuring student-teacher relationships. One study that used an adapted version of the Classroom Assessment Scoring System for Kindergarten (CLASS-K; La Paro, Pianta, & Stuhlman, 2002) found occasion specific variance with regards to the observations and they were less stable than teacher's ratings throughout the year (Doumen et al., 2012).

Information with regards to the child's experiences were not captured. Given teacher's perceptions of their student-teacher relationship does not always match the child's perception (Koepke & Harkins, 2008) valuable information may have been missed. Including the voice of the child is important within professional practice (Griffiths, Stenner, & Hicks, 2014; Harding & Atkinson, 2009). However, gathering children's views, particularly those who are young or have Special Educational Needs, in a meaningful manner which is not tokenistic is challenging (Mercieca & Mercieca,

2014). While some have advocated the use of methods such as the Mosaic approach (Clark, 2005) this can be difficult to implement in situations where there are strict research deadlines (Mercieca & Mercieca, 2014).

In CS1, given the purpose of the study was to explore whether the intervention made a difference to student-teacher relationships, it would have been helpful to have got a member of staff who attended the intervention consistently to complete the questionnaires.

5.2.3.4 Analysis of Pre- and Post-measures.

As noted in section 4.1.1.1 analysis of pre- and post-measures is challenging when there is a small number of participants, and therefore RCI and CCI were employed that analysed data at the individual level. Limitations include that the normative data used to calculate the RCI for STRS was based on an American population as there was no data available for the UK and therefore does not match the demographic of the participants. Furthermore, the CCI thresholds identified for both questionnaires, whilst identified from data from the authors of the questionnaires, is still subjective. This may explain why there were some occasions in which there were reliable changes observed which did not lead to a change in threshold and vice versa. However, despite these limitations the methods do provide an understanding of the level of the change which would not be achieved without these methods.

5.2.4 Evaluation of Qualitative Aspects

5.2.4.1 Interviews

Interviews provided regarding the education's staff views of the intervention, their perception of their relationship with the children and the children's behaviour.

As discussed in section 3.8.4 there is four criteria that can be considered regarding the quality of qualitative research. In relation to credibility, a strength was that data was collected from both the facilitators of the intervention and the education staff. Both negative and positive findings were reported from the interview data. The data was also discussed with a research supervisor. Credibility would have been

strengthened if the transcripts were shared with the participants or if the interviews had been completed by someone independent to the research.

In relation to transferability, detailed information about the settings, interventions and participants were gathered. It was also supported by the research having multiple cases which is argued to help strength external validity (Yin, 2018). Dependability was managed by describing and reporting the research processes in detail and methodological decisions were recorded in email communication with tutors.

With regards to confirmability, transcripts were completed of the interviews so data can be tracked to its source. However, it is acknowledged that it is likely that some of the researcher's own biases will have affected some of the questions asked in the interviews and in their analysis. Some questions were shaped on the researcher's previous experiences of implementing Theraplay interventions and their involvement in previous research (Francis et al., 2017). Furthermore, the researcher acknowledges that their skills in interviews are continuing to develop and the transcripts evidence questions such as double-barrelled questions which should be avoided in interviews (Robson & McCartan, 2016).

There could have also been potential biases from the people interviewed, particularly with regards to the TFs who may have a invested interest in the outcomes being positive. Similarly, the education staff in CS2 may have not wanted to report negative outcomes given the TF was also their NM. A limitation in CS1 was no interview with the teacher, making triangulation of data challenging. However, it was important that their wishes to not be interviewed was respected in relation to ethical considerations. Another limitation was that the timings of the interviews in both case studies had been completed before the completion of the intervention which may mean that the full effects of the intervention were yet to be observed.

5.2.5 Evaluation of Participants

5.2.5.1 Participant Selection

Participants selected for the research were those that education staff had identified as experiencing SEMH difficulties. As noted in the literature review, the definition of SEMH provided by the DfE and DoH (2015) has argued to be an umbrella term (Dolton, Adams & O'Reilly, 2019) which has been considered ambiguous and diverse (Norwich & Eaton, 2015). This wide ranging term means both externalising and internalising behaviours are included within the SEMH definition. The inclusion criteria for the research reflects this variety and was purposely wide to help identify a suitable number of participants and to capture a range of presenting needs. SDQ data and discussions with education staff were used to get an understanding of the children's SEMH needs. A limitation of selecting participants in this manner was that some of the children's difficulties identified by staff such as Brian's difficulties with verbal communication (which led to the target behaviour of vocalisations being identified) could be due to a social skill need but could also indicate other difficulties such as expressive language skills. The researcher was reliant on staff members to have a good enough understanding of SEMH needs, however teachers may not always be able to recognise SEMH needs due to inadequate and limited teacher training about these difficulties (Green et al., 2018).

The selection of participants may have been strengthened by the use of a screening measure or questionnaire. The rationale for not including a screening measure in the current study was that a measure which captured the complexities of SEMH needs and could be completed in a timely manner could not be identified. Although the SDQ is a measure that is used to measure children's social and emotional development (Dockrell et al., 2017), it is of note that the pre-T-SDQ findings for two of the CS1 participants were within the average range and was 'slightly raised' for the other child, despite two of the children having diagnoses of ADHD and all three were in a 'nurture' classroom due to their behavioural, emotional and social difficulties. If a screening measure like the SDQ had been used, these children would not have been included in the research and this information may have been lost. However, future research may benefit from a more detailed analysis of the children's SEMH needs or

a more specific criteria that can be operationally defined and checked, particularly as previous research has indicated children respond differently to Theraplay interventions dependent upon their needs (Francis et al. 2017).

A limitation of the selection of participants was the nature of the sampling method used. An opportunistic or convenience sampling method was employed due to difficulties with recruitment of schools and participants (as described in section 3.6.3) and the researcher also wanted to capture how schools were implementing the Theraplay intervention and which children they were planning to use the intervention with. Furthermore, the nature of the methodology employed (case study and SCEDs) means that the generalisation of findings would already be low (Cakiroglu, 2012; Horner et al., 2005; Robson & McCartan, 2016) and therefore recruitment was more of a priority for the researcher than representation of a wider population. Nevertheless, the nature of the sampling method employed means it is open to different biases and influences (Robson & McCartan, 2016) and not representative of the general population. This may partly explain why the sample in both case studies were all male and therefore could be reflective of a potential gender bias. Given Francis et al.'s (2017) findings suggested there could be possible differences in outcomes for male and females who receive Theraplay interventions, it is not clear whether there would have been similar findings in the current study if some of the sample had included female students. Therefore, any conclusions made for the current study can only be made with regards to male students age three to eleven-years-old.

The selection of males for Case Study One could be due to that most of the class population were male (there was only one female student) however staff's selection of males for Case Study Two could be an indication of the differences in how male and females behaviours are perceived. Some studies have indicated there could be differences in teacher's perceptions of behaviour and their referral to services due to gender. For example, in one survey study, teachers identified more boys as having behavioural problems in class that concerned them (Molins & Clopton, 2002) and another study identified boys as being more likely to be referred to mental health

services by teachers due to the type of needs they present with (externalising behaviour difficulties), their poor academic performances and the belief that girls may mature out of their difficulties (Green, Clopton, & Pope, 1996). Some have argued that given the concern that quiet girls could be overlooked with regard to their social and behavioural needs in schools, positive discrimination in favour of them receiving intervention and support may be needed (Geddes, 2006). With regards to implications for future research, it would be beneficial to not only have clearer operational definitions with regards to the nature of the SEMH difficulties being researched, but to make efforts to ensure that the sample is more representative of the wider population.

5.2.5.2 Parental Involvement

Parent's views were not captured because the research focused on the impact of the intervention within the educational setting. However, this may have meant information was missed such as subtle changes in the children's behaviour or other external factors that could have impacted the child's behaviour.

5.2.5.3 Children Involvement

Similarly, another limitation was not gathering the children's views, something that has been identified as important in understanding Theraplay outcomes (Francis et al. 2017). This is explored in implications for future research.

5.2.6 Evaluation of Ethical Considerations

The researcher attempted to ensure that the ethical guidance as described in Section 3.7 was adhered to. Throughout the process there were some ethical considerations that occurred and are explored further below.

One consideration that was made during the research was with regards to the children's capacity to provide valid consent to participate in the study. Consent was sought from the children in CS1 by the researcher and staff member talking to them about the research. The original consent letter was also adapted using symbol writing software (SymWriter 2) that is familiar to the school (as recommended by their teacher) to better match their level of understanding. However, there is still a

concern that given the children's level of need it is unclear how well they understood every component of the letter and this reflects a wider concern within the research community as to how valid consent is sought from children and particularly those that are often viewed as not capable of making decisions (Gallagher, Haywood, Jones, & Milne, 2010). Despite these concerns when two children from a different school stated that they did not want to participate in the research this was respected, and they were reported by school staff to still have access to the Theraplay group and therefore withdrawal from the research did not impact their participation in the intervention.

The children's wellbeing throughout the process was important to the researcher and ensuring that they were not impacted by the video recordings in CS1. Staff members who were familiar to the children completed the recordings so there was less impact on the children who could potentially feel uncomfortable with regards to a stranger observing them. When the researcher was concerned with regards to one participant being recorded who was observed hiding in the videos this was raised with school staff and it was stressed that if the child's behaviour was being negatively impacted by the recordings then they would not be included in the research. Staff advised that the behaviour observed was typical for the child and not a result of the video recordings. Regular communication with staff members was important and the researcher attempted to meet at least one staff member each week when they collected and transferred the video recordings to ensure any problems were identified and managed in a timely manner.

5.3 Future Research

Current research sought to explore how Theraplay interventions are implemented within education settings and what impact they have on behaviour and relationships with teachers for children identified as having SEMH needs. While this research has provided some insight into these areas, and added to the limited evidence base, further research is required:

5.3.1 How are Theraplay Interventions Implemented across the UK?

There are numerous education and care settings that are implementing Theraplay interventions, however the extent of this appears to be unknown. It would therefore be helpful to have a better understanding of what Theraplay looks like in the 'real world', through survey methods and/or focus groups.

5.3.2 Difference between Theraplay and Play/Other Methods

Arguments regarding the value of Theraplay have centred on the intervention using 'play' at its foundation (Booth & Jernberg, 2010). However, as noted there are a range of play definitions (Moyles, 1994) and questions as to whether play therapy is play (Goodley & Runswick-Cole, 2010). Given there have been recent arguments for children to have more opportunities to engage in child-led play within schools (Hobbs et al., 2019), it would be helpful to explore the differences between child-led play (non-therapeutic) and Theraplay with regards to outcomes and adult's/children's experiences of the two approaches.

Related to this area, is the exploration of the differences between Theraplay and other types of adult-led play. Many of the Theraplay activities, as noted in Appendix DD and GG, are similar to party games, however, proponents of Theraplay argue the activities differ because there is an emphasis on adults showing the children they are cared-for, wanted and accepted (Rubin & Tregay, 1989). Research comparing the two approaches may provide some insights into potential differences and possible mechanisms of Theraplay.

5.3.3 Theraplay and Attachment/Relationships

Given attachment is a theoretical underpinning of Theraplay (Booth & Jernberg, 2010), more research in this area would be beneficial. As noted in section 5.2.3.3 there are different methods which could provide more understanding with regards to the student-teacher relationship. Another possibility is the Marshak Interaction Method (MIM) (O'Connor et al., 2004) which is used within traditional parent-child Theraplay. Discussions with the TM indicated there were plans within the LA to use an adapted MIM for education settings and use the Dyadic Emotional Interaction Style (D-EIS) (Salo & Makela, 2016) to score the MIM as a way to provide some

quantitative results to these findings. The D-EIS is underpinned by the four Theraplay dimensions discussed in the literature review, however it is not published or yet been used in UK research. Therefore, research regarding the feasibility and psychometric properties of the D-EIS would be useful. This could provide a measure that is tailored for Theraplay and encourage more practitioners to evaluate their interventions if there was a measure that is promoted by Theraplay. Consistency of a measure in research may also help comparisons of findings.

5.3.4 Children's Experiences

As previously discussed, a limitation was not getting the children's experiences of the intervention. Only one study has explored the student's perceptions of the intervention (Francis et al. 2017) and this was done from questions and scaling being used. Therefore, more could be done to explore their views and experiences of the intervention.

5.3.5 Delivery of Theraplay Intervention

There were different outcomes for the two case studies in which implementation differed. It would therefore be useful to further explore the differences between Theraplay interventions which are embedded or not within the education setting, particularly as it is argued that vulnerable children are more supported within schools which adapt a whole-school approach (Roffey, 2016).

Given there is no clear guidance as to what the length of the delivery should be of the Theraplay intervention for education settings, further research examining the outcomes of different lengths of delivery of the intervention would help to identify a minimal length of delivery that would be needed before outcomes are seen.

5.4 Implications

5.4.1 Implications for Educational Psychologists

Within section 3.1, arguments were made with regards to the importance of evidence-based practice, and the implications that interventions which lacked evidence could be harmful or at the very least lead to a loss of money or time (Cohen et al., 2011; Goldacre, 2009). Fredrickson (2001) notes there is an ethical duty to

evaluate interventions and given Theraplay is often used with vulnerable children (such as those in care) , it is important to continue to examine the implementation and outcomes of such interventions.

The importance of exploring the evidence-base for Theraplay was particularly significant to the researcher given their previous experience in implementing the intervention (Francis et al., 2017) and the researcher has acknowledged their personal biases about the intervention. These biases include that the researcher has in the past experienced the intervention to be a positive one which reflects their own values with regards to play and relationships. Fox (2011) argues the need for EPs to recognise the danger of becoming emotionally attached to a particular psychological framework and that it is important that EPs look for evidence to falsify its claims. Therefore, this research has offered the researcher an opportunity to take on the role of being an active researcher-practitioner and to examine the evidence for the intervention. It particular, the research has provided an opportunity to examine an intervention that may intuitively look appealing but still require close scrutiny and measurement (Gulliford, 2015).

Educational Psychologists have an important role both as consumers and producers of research with regards to new interventions (Frederickson, 2002). This research is supportive of Frederickson's (2002) conclusions and within the illustration of Salkovskis's hourglass model (Salkovskis, 1995 cited in Frederickson 2002) (see Figure 5-1), this research could be considered within the initial phase in which ideas are tested with single case studies highlighting that case studies have a role in evaluating therapeutic interventions. This suggests that even small-scale studies can contribute to an evidence-base of an intervention and some of the skills developed in this process (such as the use of qualitative and quantitative methods) to evaluate the intervention could be applied within the practice of the EP, particularly when using or recommending interventions that have a limited evidence-base. Fox (2011) notes practitioner research is "one way to develop a research base for psychologists' own work and to challenge the tapestry that they have so closely woven" (p.327). Therefore, while the role of the researcher and of a practitioner could be seen as

being two separate roles, this experience suggests that many of the skills used for research could be applied within educational psychology practice.

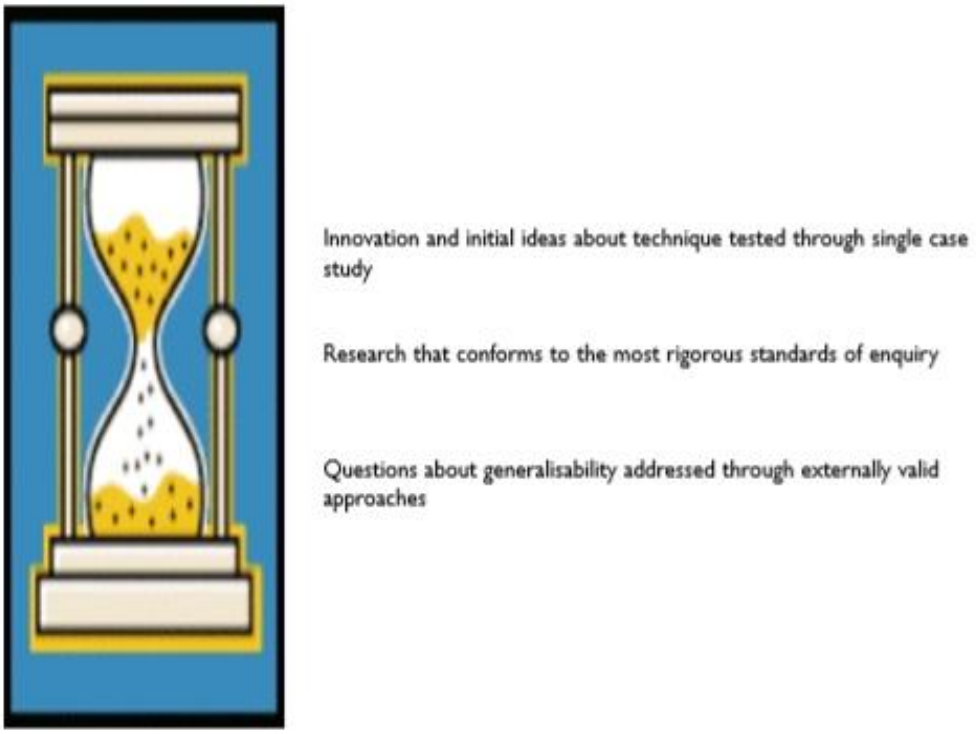


Figure 5-1 Salkovskis's hourglass model

The research has also highlighted other implications for EPs. There were significant difficulties in evaluating the interventions and one of the possible reasons for this was because the researcher did not have a role in the implementation of the intervention. Shute (2012) notes that there can be hostility from teachers towards researchers who hope to research initiatives in their schools. During the recruitment stages of the research, there were several schools who were implementing Theraplay interventions but did not wish to have their interventions evaluated. Reasons cited included time, staffing availability or that it was not of interest to the SENCO/Head Teacher, supporting Shute's (2012) arguments that often the researcher's priorities are understandably not matched by those of the teachers.

One possibility with regards to limited recruitment was that the schools had already invested in the Theraplay intervention and therefore were reluctant to examine its

effectiveness. This may be because they had already 'bought in' to the intervention or could be a reflection of a perception, that given the needs of such children, any intervention is better than none. This suggests that more could be done by EPs to promote the benefits of evaluating interventions to schools. However this involves establishing a culture in which evidence is used as a matter of routine (Goldacre, 2013).

It also highlights the need for EPs to first develop relationships with schools and not assume that settings will be open to having their interventions evaluated. A difficulty the researcher encountered was that they had no relationship with the schools they approached. The research highlighted the need to be adaptable to the real-life contexts. The pragmatic epistemology adopted within this research enabled the researcher to be flexible in the methodology to meet the needs of the different settings.

5.4.2 Implications for Schools

The findings of the systematic literature review completed in section 2.5 showed that there is limited evidence regarding the effectiveness of Theraplay interventions in education settings. While it is difficult to generalise the findings of the current study to other situations due to the small sample size and the limitations of the methodology; the variability of the findings provide further support for the idea that there should be some caution before implementing Theraplay in schools and that more research is required.

This is particularly significant given the potential cost and time implications of the training, and that criticisms of the intervention have included the nature of some of the activities used (such as the use of touch) and whether the intervention is in line with attachment theory (Allen, 2011). Some of these concerns are likely to have ethical implications for the students, and therefore schools may wish to have a stronger evidence base before introducing the intervention, particularly when it appears to be often used with vulnerable students (such as the children in care in Francis et al.'s (2017) study).

Play is reported to have a positive impact on social and emotional wellbeing (Golinkoff, Hirsh-Pasek, & Singer, 2006; Schaefer & Drewes, 2010), and there have been recent arguments for children to have more opportunities to engage in child-led play within schools (Hobbs et al., 2019). Arguably, the introduction of child-led play sessions is likely to be less costly, time-consuming, and have fewer ethical implications than Theraplay interventions , it may be more beneficial for schools to implement more child-led play sessions and examine the impact of these before using an intervention such as Theraplay.

However, the current study has not identified any harmful effects of the intervention on the students, and the education staff did report some positive outcomes for the children. In particular, within CS2 education staff reported the benefits of Theraplay training they received and commented on the importance of having the approach being embedded within the nursery. This may suggest that Theraplay is more suited as a universal intervention rather than a targeted one, in which staff members use more playful and relational interactions with all children in the classroom. This is similar to arguments regarding the use of the principles of 'PACE' (Playfulness, Acceptance, Curiosity and Empathy) (Hughes, 2009) in education settings (Bomber & Hughes, 2013; Webber, 2017). It has been argued that playfulness in particular can help build a reciprocal relationship between the adult and the child (Webber, 2017) and help students to be more ready to learn (Bomber & Hughes, 2013). However, not all teachers value the importance of play in education settings (Pyle & Danniels, 2017) and it may be that an intervention such as Theraplay could provide education staff the rationale for the use of play and ideas, and offer examples of how they can use play and playfulness in their classroom. Findings from the qualitative data in CS2 also suggest an important facilitating factor to the intervention was the Nursery Manager being an advocate for Theraplay and wanting it to be implemented throughout the nursery, in contrast to CS1 in which education staff's attendance to the intervention was variable. Therefore, a recommendation for schools, based on the findings of this study, would be that with any implementation of an intervention, the involvement of Senior Management is important in ensuring engagement from staff members.

Given the limited evidence for both targeted and universal applications of Theraplay in education settings, if schools wish to implement the intervention it would be advisable for them to ensure they measure the impact of the intervention and undertake close monitoring of the student's wellbeing throughout the course of the intervention.

Furthermore, although the findings from this study cannot be generalised to wider settings, if schools do wish to implement the intervention, the research has highlighted two different methods of implementing Theraplay interventions within education settings, as well as the barriers and facilitators of these interventions. Given there is little Theraplay literature, this research offers educators ideas with regards to what these interventions may look like in a real-life setting.

5.4.3 Implications for Those Responsible in the Delivery and Development of Theraplay

The researcher is not aware of there being research examining the impact of Theraplay using a SCED methodology. Therefore, despite the current limitations of this study, it may encourage other Theraplay Practitioners to use methods such as SCEDs to help evaluate the impact of their interventions without the pressures of finding large groups of participants. Anecdotal evidence from speaking to Theraplay Practitioners suggest there is some reluctance to complete research because there is a belief that large number of participants are required to complete group designs. Hopefully this research, in addition to previous research employing case studies, has demonstrated there are alternative quantitative and qualitative methodologies that can be employed. While it is acknowledged there are limitations to the evidence-based movement, given the vulnerabilities of the children that these Theraplay interventions are used with and the nature of some of the activities such as the use of touch, the Theraplay organisation has a moral and ethical duty to continue to promote the evaluation of such interventions.

5.5 Conclusion

The current study investigated how Theraplay interventions are implemented in education settings and what effect they have on children's behaviour and student-teacher relationships for male students aged three to eleven-years-old identified with SEMH needs.

The findings demonstrated two different approaches to implementing Theraplay interventions within education settings; one setting using it as a whole class intervention in a specialist school and another using it as a group for a select number of children, which is part of a 'package' of Theraplay used throughout a nursery setting. The findings show that factors identified as being important in the implementation of the intervention included; small group sizes; settings in which staff are knowledgeable about attachment, are supported by leadership and which have rooms to accommodate the intervention; the Theraplay Facilitators' skills, ideally having two running the group; and the length of involvement. Factors seen as challenges or potential barriers include; availability of education staff to attend the sessions; time to feedback to staff after the sessions; and the attendance of children.

With regards to the impact on children's behaviour in CS1, visual and Tau-U analysis found there was an increase in observations in the intervention phase for the target behaviour 'cooperative play' for two children. There were no other changes observed for the other target behaviours. T-SDQ data showed limited changes in pre-and post-scores. For CS2, no changes were observed in the SCED data, however there was a reliable change in at least one SDQ category for each of the four children. Theraplay Facilitators reported positive changes in behaviour within the group, and two of the four children's Key Workers reported positive changes observed outside of the group.

In relation to student-teacher relationships, for CS1 both quantitative and qualitative data showed little changes in this area. In CS2, there were reported improvements from the Key Workers and changes observed in the STRS results, however the influence of external factors such as the intervention being embedded within the nursery, suggest that it cannot be concluded that any changes observed were due to the Group Theraplay alone.

This research has added to a very limited evidence base. By highlighting the strengths and limitations of the methodology employed, areas for future research, and implications for practice have been identified.

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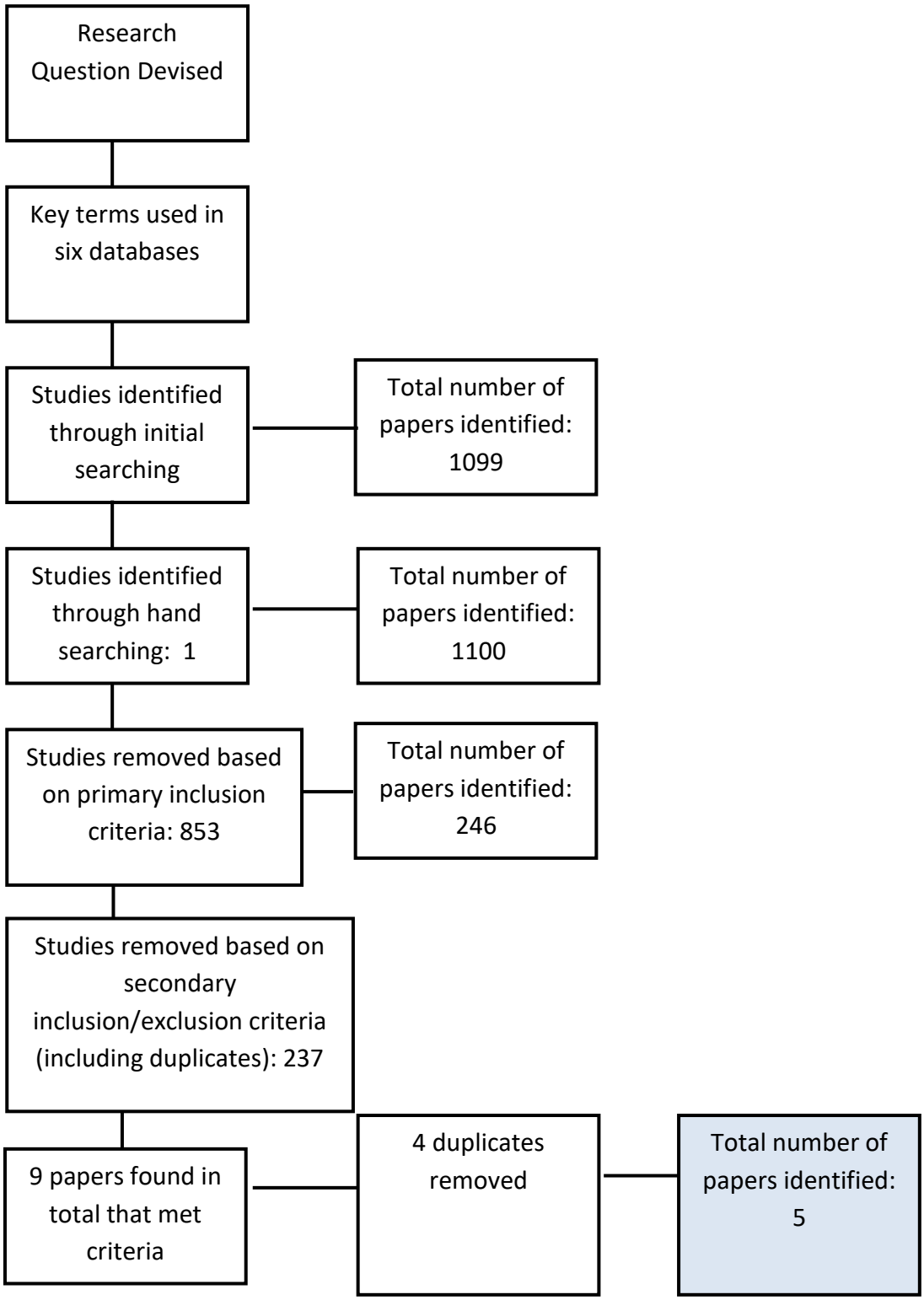
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7 Appendices

7.1 Appendix A. Search Strategy and Process for Finding Relevant Papers for Review



7.2 Appendix B. References of Papers that Did Not Meet Referral Criteria.

References of papers that were excluded because they did not meet the referral criteria for the systematic literature review can be found on the CD attached.

7.3 Appendix C. Summary of Papers Included in Systematic Review with Weight of Evidence (WoE) Scoring

Source a And Country	Purpose	Setting and Participants	Design	Measures	Key Findings	WoE findings
Francis, Bennion, & Humrich (2017). UK	To explore the impact of Theraplay group or individual interventions on the child's relationship with a key adult in school and if there are any changes in the child's engagement in education	• Twenty children in care • 5-11 years old, • 55 girls, • 60% white, 20% Black/African/Caribbean/ Black British/ 20% Asian. • Nine primary schools and a Pupil Referral Unit.	Mixed methods pre and post single group design	Strength and Difficulties Questionnaire (SDQ, Goodman, 1997) – pre and post Interviews with school staff and parents analysed using thematic analysis and then analysed using a Realist Evaluation approach	<u>SDQ Findings:</u> No significant findings overall for pre and post SDQ scores. <u>Interview Data</u> Interview Data broken into themes (context, mechanisms, outcomes): Outcome findings included an increase in: positive relationships with peers and adults, engagement with education, confidence and self-esteem, positive behaviours, enjoyment and engagement	A: Low B: High C: High D: Medium

Siu, (2014). Hong Kong.	To explore the effectiveness of a school-based Theraplay program in increasing social skills of children with developmental disabilities.	• 38 students (35 boys and 3 girls) from a special needs school. • Age range of 6-13 years, mean age of 10.34 years. • 47% 'mild grade of intellectual disabilities' • 53% 'moderate grade of intellectual disabilities' • Children were screened for social difficulties with a tool developed by the author.	Randomised Control Trial	Social Responsiveness Scale (SRS, Constantino et al. 2003): Qualitative Data: Notes containing the teacher's reflection of the program were gathered. Rating scale of observations at the beginning, middle and end: - responsiveness to instructions - initiation of interactions with peers were coded.	A MANOVA found no significant findings between the intervention and control group for Theraplay intervention on student's social behaviour. Follow up ANOVA found results on subscale social communication was significant, other 3 subscales were not significant. Paired t tests: Small significant effect sizes found for intervention group for pre and post-tests: - Social Awareness - Social Cognition - Social Communication - Social Motivation No significant findings for control group. No significant improvement was found in the observations completed – teachers reported there were improvements.	A: Medium B: High C: Medium D: High

Tucker, Schieffer, Wills, Hull, & Murphy (2017). United States of America	To examine the effect of Sunshine circles on behaviour and socialisation of children.	• 206 preschool children (age range 3 – 4 years). • 12 teachers • 99 – control classes, 107 – intervention classes • All children met guidelines for free or reduced lunch programs. • African/African-American – 40%, Caucasian – 13%, Asian – 5%, North African/middle Eastern – 22%, Hispanic/Latino – 20%	Quasi experimental design – Pre and post non-equivalent group design.	School measures taken three times a year (October, February, May): • GOLD (Lambert et al.2010) • AGS-3-third edition (Squires et al. 2009) • ASQ- 3 Social Emotional section. (Squires et al. 2009) • Preschool Behaviour Questionnaire PBQ (Behar & Stringfield, 1974). Administered and scored by teachers. Teaching Pyramid Observation Tool (TPOT, Fox et al., 2008).	GOLD scores: Significant difference found between intervention and control group for: 1. Manages feelings 2. Cooperates with limit setting 3. Cares for own needs 4. Peer Interactions 5. Makes friends 6. Balance needs and rights of self and others 7. Solves social problems No significant difference for: 1. Positive relationship with adults 2. Responds to emotional cues. No description of means pre and post for each group. AGS-3 edition: Significant' interaction between treatment group and pre and post for: 1. Fine motor scale (small effect size) 2. Problem Solving Scale (small effect size). No significant interaction for: 1. Communication 2. Gross-motor scores 3. Personal-social scores No description of mean scores	A: Low B: Medium C: High D: Medium

				Interviews with teachers at end of year (2 could not attend). Thematic analysis used.	ASQ-3 Social Emotional section: Significant interaction between treatment group and pre and post with a small effect size. PBQ: PBQ total scale scores were reported to be significant. Control Significant interaction between treatment group and pre and post scores: 1. Anxious subscale (medium effect size) 2. Hostile/aggressive (medium effect size) 3. Hyperactive/distracted (medium effect size) TPOT: Completed in the Spring: Significant differences between control and intervention for second and third sets of questions for observers – and no significant difference for first set of questions.	

Park & Lee (2014) South Korea.	The effects of group Theraplay programs on peer competence and problem behaviours of elementary childcare class children,	• Children in 1st to 3rd grades in elementary school (8-10years) • 6 in control group (4 girls, 2 boys) • 5 in experiment group (3 girls, 2 boys)	Quasi experimental design	Peer competence scale (Seunglee Yun, 2007): Sub-elements – - Sociality -Prosociality - Initiation - Total Teachers report form part of the Achenback System – Korean version	Peer competence scores: Significant' increases in sociality, prosociality, initiation and total peer competence scores for experimental group. No significant differences for control group. Children behaviour assessment scores: Significant decrease in internalisation, externalisation and problem behaviour scores for experimental group. No significant differences for control group.	A: Low B: Medium C: Low D: Low

Salisbury (2018) UK	The effects of attachment enhancing play based on Theraplay principles on adult-child relationships and social and emotional functioning.	• 5 children identified as having SEMH needs and attending school • Children had identified adult supporting them in class on a 1:1 basis	Practical Action Research Mixed Methods pre and post design	• Student-teacher relationship scale(STRS)-short form, Pianta 1992 • Child-Adult Relationship Questionnaire (CARQ) Salisbury 2018 • Strength and Difficulties Questionnaire, Goodman 2001 • Boxall Profile, (Bennathan and Boxall, 1998) • Structured observation - tally of positive interactions • Structured interview with adult and child	• STRS closeness scores improved for 4 and out 5 children (average of 10%) • STRS conflict scores decreased for all children (average 16%) • CARQ closeness scores improved for 3 out of 5 children (3%) • Positive interactions observed increased 325% • Overall total Teacher SDQ scores reduced on average by 29% • Minimal improvement in SDQ scores reported by parents • Average improvements in all Boxall categories apart from engages cognitively with peers and craves attachment • None of the pre and post scores were statistically significant.	A: Low B: Medium C: High D: Medium

7.4 Appendix D. Weight of Evidence (WoE) Criteria Developed for Systematic Review

Weight of Evidence A: **Quality of Design**	**High**	**Medium**	**Low**
Aims/hypotheses/objectives/purpose clearly described	80% - 100% of relevant criteria is met	60-79% of relevant criteria is met.	59% or below of relevant criteria is met
Participants			
Sample clearly described (number, gender, age etc.)			
Control/comparison group			
Participants randomly assigned to each group			
Overall attrition rate less than 30%			
Participants in sample comparable across conditions			
Implementation of Intervention			
Method/procedure of research clearly described			
Nature of services provided in comparison conditions described			
Intervention clearly described (duration, facilitator, description of sessions)			
Intervention fidelity checks completed.			
Outcome Measures and Analysis			
Quantitative			
Standardised measures used			

Multiple measures used			
Reliability/Validity of measures discussed			
Outcomes measured at appropriate times			
Outcomes captured beyond immediate post-test			
Data analysed using appropriate significant testing			
Effect sizes reported when applicable.			
P values reported			
Observations			
Observations completed by someone blind to the program			
Interrater reliability checks completed for observation data			
Qualitative			
Detailed descriptions of settings, intervention and participants described			
Audio/video recording of interviews			
Description of how descriptive analysis categories were generated			
Member checks			
Discussion how error/bias may have arisen in collection and analysis of data			
Additional			

Conclusions clearly linked to data collected			
Limitations discussed			
Researchers are not the facilitators of the Theraplay intervention and independent to the Theraplay franchise			
Ethical considerations highlighted			
Weight of Evidence B **Appropriateness of Design for Answering Research Question**	**High**	**Medium**	**Low**
Clearly defined participant sample	80% - 100% of relevant criteria is met	60-79% of relevant criteria is met.	59% or below of relevant criteria is met
Clear description of Theraplay interventions			
Use of objective outcome measures			
Data analysis appropriate for the design			
Weight of Evidence C **Relevance of Evidence for Answering Own Review Question**	**High**	**Medium**	**Low**
Theraplay used within an education setting	80% - 100% of relevant criteria is met	60-79% of relevant criteria is met.	59% or below of relevant criteria is met
Study conducted in UK			
Samples were in key stage two			
Study evaluates the impact of Theraplay classroom behaviour			
Study evaluates the impact of Theraplay on relationships with school staff			

Weight of Evidence D An overall assessment of the study in relation to the findings of strands A, B and C	**High**	**Medium**	**Low**
Calculated by averages of A, B, C	80% - 100% of relevant criteria is met	60-79% of relevant criteria is met.	59% or below of relevant criteria is met

7.5 Appendix E. Weight of Evidence (WoE) analysis for the four studies identified within the literature review.

Weight of Evidence A **Quality of Research**	**Tucker, Schieffer, Wills, Hull, & Murphy (2017)**	**Francis, Bennion, & Humrich, (2017).**	**Siu (2014).**	**Park and Lee (2014)**	**Salisbury (2018)**
Aims/hypotheses/objectives/purpose clearly described	Y	Y	Y	Y	Y
Participants					
Sample clearly described (number, gender, age etc.)	Y	Y	Y	Y	N
Control/comparison group	Y	N	Y	Y	N
Participants randomly assigned to each group	N	N/A	Y	N	N/A
Overall attrition rate less than 30%	Not reported	Y	Not reported	Not reported	Not reported
Implementation of Intervention					
Method/procedure of research clearly described	N	Y	Y	N	N
Nature of services provided in comparison conditions described	N	N/A	Y	N	N/A
Intervention clearly described (duration, facilitator, description of sessions)	N	Y	Y	N	N

Intervention fidelity checks completed.	N	N	Y	N	N
Outcome Measures and Analysis					
Quantitative					
Standardised measures used	Y	Y	Y	Y	Y
Multiple measures used	Y	Y	Y	Y	Y
Reliability/Validity of measures discussed	N	N	Y	Y	N
Outcomes captured beyond immediate post-test	N	N	N	N	N
Data analysed using appropriate significant testing	N	N	N	Y	N
Effect sizes reported when applicable.	N (not for all measures)	N	Y	N	N
P values reported	Y	Y	Y	Y	N
Observations					
Observations completed by someone blind to the program	N/A	N/A	Y	N/A	N
Interrater reliability checks completed for observation data	N/A	N/A	N	N/A	N
Qualitative					
Detailed descriptions of settings, intervention and participants described	N	Y	Y	N	N
Audio/video recording of interviews reported	Y	N	N	N/A	N

Description of how descriptive analysis categories were generated	Y	Y	Y	N/A	N
Member checks	N	N	N	N/A	N
Discussion how error/bias may have arisen in collection and analysis of qualitative data	N	N	N	N	N
Additional					
Conclusions clearly linked to data collected	Y	Y	N	Y	Y
Limitations discussed	Y	Y	N	Y	y
Researchers are not the facilitators of the Theraplay intervention and independent to the Theraplay franchise	N	N	N	N	N
Ethical considerations highlighted	Y	Y	N	N	y
Percentage	**44%**	**52%**	**64%**	**48%**	**24%**
Weight of Evidence B **Appropriateness of Design for Answering Research Question**	**Tucker et al. (2017)**	**Francis et al. (2017).**	**Siu (2014).**	**Park and Lee (2014)**	**Salisbury (2018)**
Clearly defined participant sample	Y	Y	Y	Y	N
Clear description of Theraplay interventions	N	Y	Y	N	Y
Use of objective outcome measures	Y	Y	Y	Y	Y
Percentage	**67%**	**100%**	**100%**	**67%**	**67%**

Weight of Evidence C **Relevance of Evidence for Answering Own Review Question**	**Tucker et al. (2017)**	**Francis et al. (2017).**	**Siu (2014).**	**Park and Lee (2014)**	**Salisbury (2018)**
Theraplay used within an education setting	Y	Y	Y	Y	Y
Study conducted in UK	N	Y	N	N	Y
Samples were in nursery or primary aged	Y	Y	Y	Y	y
Study evaluates the impact of Theraplay on children's behaviour	Y	Y	Y	N	Y
Study evaluates the impact of Theraplay on relationships with school staff	Y	Y	N	N	Y
Percentage	**80%**	**100%**	**60%**	**40%**	**100%**
Weight of Evidence D	**Tucker et al. (2017)**	**Francis et al. (2017).**	**Siu (2014).**	**Park and Lee (2014)**	**Salisbury (2018)**
	64%	**84%**	**75%**	**52%**	**64%**

7.6 Appendix F. Confirmation of Ethical Approval Received from University of Nottingham Ethics Committee

The University of Nottingham
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School of Psychology
The University of Nottingham
University Park
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tel: +44 (0)115 846 7403 or (0)115 951 4344

SJ/tp

Ref: S1059R

Wednesday 30th May 2018

Dear Sarah and Kimberly

Ethics Committee Review

Thank you for submitting an account of your proposed research "Examining the impact of a Theraplay intervention within an education setting on classroom behaviour and student-teacher relationships for children identified with Social, Emotional and Mental Health (SEMH) difficulties".

That proposal has now been reviewed and we are pleased to tell you it has met with the Committee's approval.

However:
Please note the following comments from our reviewers;

Reviewer One:

- Page 9, last para, line 2/3. The researcher should reflect on, and clarify, the level of detail that is to be shared with the target child. Is it possible that, as it stands, the information given may inadvertently influence the outcomes of the research?

- Page 23 Information Sheet. The researcher may wish to reconsider the use of the term "these demands" as a potentially value-laden term, which could impact on their ability to recruit participants. An alternative wording could be "these activities"

- Page 25, para 2, line 2/3 In the letter to parent the researcher invites parents to "consent to evaluate the effectiveness of this intervention." It would be beneficial for this phrase to be reworded so that it more accurately reflects what parents are being asked to consent to i.e. for their child to take part in research which aims to evaluate the effectiveness of the "Thera-play" intervention.

- In the same letter, next line 4, there seems to be unnecessary repetition "what effect it has on" I would suggest that the researcher remove the second phrase, so that the point reads more concisely.

- Also, on line 6 when seeking to obtain parent consent the letter states "before you decide if you wish to take part." The researcher should reconsider their use of this phrase, so that the

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nature of the consent the parent is giving is clear/accurate. Would it be more accurate to say "before you decide if you wish **your child** to take part"?

- On Page 26, a similar point applies in relation to the right to withdraw. On line 1 would be more accurate to say "you or your child" Please check this, and the point above, on other information sheets and consent forms too.

- Page 41, bullet point 3 of the consent procedure. The researcher may wish to review the use of the wording "if the activities are helping the child." Might this and the phrase "to change the child's behaviour" risk creating demand characteristics by subtly suggesting a particular direction to the outcome of the intervention. Alternative wording might be whether it "makes a difference or not" or something like this. This point also applies to the letter to the pupil on page 42, para 3 use of the term "what difference". "what, if any, difference" would be an alternative.

- Reference to "a colleague in University" in the 5th para appears a bit vague and open ended. I recommend that researcher be more specific "another postgraduate researcher or Trainee EP" would be alternative

- Page 44 debrief to participants in the debrief for school para 3, line 1 minor point- remove repetition of the word "meeting"

- Page 67 last line minor point - check format/justification of last sentence seems to be spread out. Check this in other letters too?

Reviewer Two:

- With respect to the Debrief for parents/carers (Appendix I), I have some concerns that the provision of information about the research results may cause concern or upset for parents, particularly the Class Teacher's views on the child's behaviour. I suggest that either the debrief information provided is more general and focuses on the evaluation of the intervention only rather than the child, and further specific discussions about the child and their behaviour are left for the school and individual teachers to follow up with, or that the debrief information is reviewed carefully by the school prior to being distributed.

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Final responsibility for ethical conduct of your research rests with you or your supervisor. The Codes of Practice setting out these responsibilities have been published by the British Psychological Society and the University Research Ethics Committee. If you have any concerns whatever during the conduct of your research then you should consult those Codes of Practice. The Committee should be informed immediately should any participant complaints or adverse events arise during the study.

Independently of the Ethics Committee procedures, supervisors also have responsibilities for the risk assessment of projects as detailed in the safety pages of the University web site. Ethics Committee approval does not alter, replace, or remove those responsibilities, nor does it certify that they have been met.

Yours sincerely



Professor Stephen Jackson
Chair, Ethics Committee

7.7 Appendix G. Information and Consent Letter for School and TF for CS1



Dear Sir/Madam,

I am a Trainee Educational Psychologist at the University of Nottingham, undertaking a research study on the impact of Theraplay® intervention on primary-aged children identified as having social, emotional and mental health needs on their classroom behaviour and relationship with school staff. This research is supervised by Dr Sarah Atkinson, University of Nottingham.

I understand that your school is due to have a Theraplay® intervention implemented soon and therefore I am writing to ask for your consent to be involved in research examining the impact of this intervention.

Enclosed is an information sheet of the purposes and what would be asked of your school with regards to this research.

If you are happy to participate in this study, please sign and return the consent form attached as soon as possible. Even if you consent to participating now but feel you would like to withdraw from the study at a later stage, you can withdraw from the study at any time. On completion of the study I will be happy to offer feedback both in person and by means of an Executive Summary of the study for all those involved.

If you require any further information on the study, please feel free to contact me or my supervisor using the details given below. If you have any complaints about the study, please contact: Stephen Jackson (Chair of Ethics Committee) stephen.jackson@nottingham.ac.uk.

Thank you in anticipation,

Yours sincerely

Kimberley Bennion

Trainee Educational Psychologist

School of Psychology

University of Nottingham

Tel: 01604 364770

Email: lpxkab@exmail.nottingham.ac.uk

Dr Sarah Atkinson

Academic and Professional Tutor

School of Psychology

University of Nottingham

0115 8467238

lpasa3@exmail. nottingham.ac.uk

Information Sheet for Schools

What is the Purpose of the Research?

The aim of the research is to understand the effectiveness of a Theraplay® intervention on primary-aged children who have been identified as having social, emotional and mental health (SEMH) needs, and how this effects their classroom behaviour within school and their relationship with the member of staff completing the intervention with the child. There have been a limited number of studies examining the effectiveness of Theraplay® within school, and it is hoped this study will be add to the research base. The study would form part of my course requirements, whilst being of interest to Theraplay® and the Local Authority.

What Would Be Asked of Your School?

Identification of a Child: The research would require you to **identify a child/children with social, emotional and mental health needs that the school are due to start work with using the Theraplay® approach**. Once a child has been identified informed consent would then be gathered from whoever has parental responsibility.

Video Recordings of the Child in the Classroom: The evaluation would consist of gathering observational repeated measures. These repeated measures would consist of ten minutes video recording of the identified child within the classroom environment three times a week. These video recordings would start two weeks before the start of the intervention and continue once the Theraplay® intervention has begun for a maximum of ten weeks. If the Theraplay intervention has ended before ten weeks, then data collection will end at this time. **The research would therefore need a school staff member to set up the video camera in the classroom on these occasions and for the camera to be kept in a secure location when not in use.** (Informed consent for videoing and incidental videoing of peers in the classroom and teaching staff will also be gathered). These video recordings would then be analysed exploring the child's behaviour within the classroom using two methods: the first would involve school staff identifying a target behaviour the child shows within class (such as shouting out) and the frequency and duration of this behaviour being recorded. The second method would involve the use of a Direct Observation Form (McConaughy & Achenback, 2009) which has been used in other studies exploring the impact of play therapy within the school environment.

Completion of Questionnaires: I would also ask the child's Class Teacher and the school's staff member supporting the child with the Theraplay® intervention to complete two questionnaires before and after the intervention. One questionnaire about the staff member's views of the child's behaviour in school, and another questionnaire to gather information as to their relationship with the child.

Completion of Log: To help monitor the fidelity of the intervention, either **the school staff member or the Theraplay practitioner would be asked to complete a brief log of how the Theraplay® session went after each session** and to note any external variables that may impact the results of the study. The log will also give insights into how the staff member

approached the Theraplay® intervention, as this is an intervention that is typically individualised and adapted to the child's need. I appreciate the time constraint and demands on school staff, and that the study requires commitment from your school. If you have suggestions of how school staff can be supported with these activities, then these would be greatly welcomed.

Theraplay Intervention: The person implementing the Theraplay intervention must be trained in at least Level One Theraplay or Group Theraplay, and have an enhanced Disclosure Barring Service (DBS) clearance. They would not be advised by myself as to what to do within the sessions and would be encouraged to complete the sessions as they would normally do. Schools will have responsibility to follow their normal duty of care for children with regards to the intervention including the implementation of their usual health and safety and safeguarding procedures.

Responsibilities of the Researcher

I have an enhanced Disclosure and Barring Service (DBS) clearance and can assure you that all of the work will be carried out professionally in line with the ethical guidelines of the British Psychological Society and Nottingham University Guidance.

All data obtained will be anonymised, stored securely and confidentially during the study. All raw data will be destroyed two years after the completion and publication of the research.

I would also ensure that those with parental responsibility were fully informed and had given consent for their child to participate in the study. They would also be informed of their right to withdraw from the research at any time and withdrawing would not stop the Theraplay® work being completed by your school. If parents consent to the evaluation, then the identified children would also be informed and asked for consent. This would be done by myself giving the children information verbally with a school staff member present, and also by providing information in a written form. The children would then be asked if they consent to taking part in the research and would be made aware that they do not need to decide straight away. Right to withdraw would mean that any video recordings that had been currently taken would be deleted and not used within the research.

Consent Form for Schools

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School of Psychology
SCHOOL CONSENT FORM

Investigating the Impact of Theraplay® Intervention on Children with Social Emotional and Mental Health needs on Classroom Behaviour and their Relationship with School Staff

Researcher: Kimberley Bennion
Supervisor: Dr Sarah Atkinson, School of Psychology, University of Nottingham
Ethics Approval Number: S1059R

The participant should answer these questions independently:

- Have you read and understood the Information Sheet? YES/NO
- Have you had the opportunity to ask questions about the study? YES/NO
- Have all your questions been answered satisfactorily? YES/NO
- Do you understand that you are free to withdraw from the study? YES/NO
  (at any time and without giving a reason)
- I give permission for my data from this study to be shared with other researchers provided that my anonymity is completely protected. YES/NO
- Do you agree to take part in the study? YES/NO

"This study has been explained to me to my satisfaction, and I agree to take part. I understand that I am free to withdraw at any time."

Signature of the Participant: Date:

Name (in block capitals)

I have explained the study to the above participant and he/she has agreed to take part.

Signature of researcher: Date:

7.8 Appendix H. Information and Consent Letter for Parents for CS1

The University of Nottingham
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Dear Sir/Madam,

I am a Trainee Educational Psychologist at the University of Nottingham, undertaking a research study on the impact of Theraplay® intervention on children identified as having social, emotional or mental health (SEMH) need's classroom behaviour and their relationship with school staff. This research is supervised by Dr Sarah Atkinson, University of Nottingham.

I understand your child is due to start a Theraplay® intervention within the school they are currently attending and I am writing to ask for your consent to evaluate the effectiveness of this Theraplay intervention. I am looking to examine what effect it has on classroom behaviours and what effect it has on the child's relationship with school staff members supporting your child. Before you decide if you wish your child to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully.

What Would the Evaluation Involve?

The evaluation would consist of asking your child's Class Teacher and the school staff member supporting the Theraplay intervention within school to complete two questionnaires before and after the intervention. One questionnaire will include the school staff member's views of your child's behaviour in school, and another questionnaire will gather information as to their relationship with your child.

The evaluation would also involve completing 10-minute video recordings of your child within the classroom three times a week which will provide information on your child's behaviour. These video recordings would start two weeks before your child is due to start the Theraplay® work and continue once the Theraplay intervention has begun for a maximum of ten weeks. If the Theraplay intervention has ended before ten weeks, then data collection will end at this time. These video recordings would be analysed to explore your child's behaviour within the classroom by school staff identifying a target behaviour the child shows within class (such as shouting out) and noting the frequency and duration of this behaviour being recorded.

Child's Consent

If you consent to the research, your child would be informed and asked for consent for the video recordings. This would be done by the researcher giving your child information verbally with a school staff member present, and also by providing information in a written form. Your child would then be asked if they consent to taking part in the research and would be made aware that they do not need to decide straight away. They would be informed that if they say no to the research they can still take part in the Theraplay intervention planned by the school. Close monitoring with school staff will take place to ensure no undue distress is

caused. Recordings will be stored securely and destroyed two years after the research is completed.

What if I have Concerns or Questions about the Theraplay Intervention?

The person implementing the intervention would not be advised by myself as to what to do within the Theraplay sessions and would be encouraged to complete the sessions as they would normally do. I will ask schools that the person implementing the intervention is trained in Level One Theraplay or Group Theraplay, and have an enhanced Disclosure and Barring Service (DBS) clearance. Any concerns or questions with regards to the Theraplay intervention or the child's wellbeing can be directed to XXXXX.

What if I have Concerns or Questions about the Research?

I have a Disclosure and Barring Service (DBS) clearance and can assure you that all of the work will be carried out professionally in line with the ethical guidelines of the British Psychological Society and Nottingham University Guidance. All data obtained will be anonymised, stored securely and confidentially during the study. All raw data will be destroyed two years after the completion and publication of the research

If you have any questions or concerns about the research, please feel free to contact me or my supervisor using the details given below**. I would also like to provide you with an opportunity to meet with me to discuss the research and answer any questions you may have. I therefore will be available to meet at XXXX on Thursday 8th November between 2pm and 3.30pm. If this time is not convenient please do not hesitate to contact me so an alternative time can be arranged.**

If you have any complaints about the study, please contact: Stephen Jackson (Chair of Ethics Committee) stephen.jackson@nottingham.ac.uk.

Right to Withdraw

Participation in this study is totally voluntary and you or your child are under no obligation to take part. If you decide you do not wish your child to be part of this research, then your child can still take part in the Theraplay intervention planned by their school.

You and your child have the right to withdraw from the research at any time during the study without giving a reason. If you decide to withdraw your child from the research your child can still continue to take part in the Theraplay intervention. Withdrawal from the study will mean that any data collected about your child for research purposes will be destroyed and will not be used by the researcher. This includes deletion of any classroom video recordings.

If you are happy for your child to participate in this study, please sign and return the consent form attached as soon as possible. Even if you consent to participating now but feel you would like to withdraw from the study at a later stage, you can withdraw from the study at any time. On completion of the study I will be happy to offer feedback both in person and by means of an Executive Summary of the study for all those involved.

Thank you in anticipation,

Yours sincerely

Kimberley Bennion
Trainee Educational Psychologist
University of Nottingham

Dr Sarah Atkinson
Academic and Professional Tutor
University of Nottingham

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School of Psychology

PARENT/CARER CONSENT FORM

Investigating the Impact of Theraplay® Intervention on Children with Social Emotional and Mental Health Need's Classroom Behaviour and their Relationship with School Staff

Ethics Approval Number: S1059R

Researcher: Kimberley Bennion

Supervisor: Dr Sarah Atkinson, School of Psychology, University of Nottingham

The parent/carer of the identified child should answer these questions independently:

Have you read and understood the Information Sheet? YES/NO

Have you had the opportunity to ask questions about the study? YES/NO

Have all your questions been answered satisfactorily? YES/NO

Do you understand that you and your child are free to withdraw from the study?

(at any time and without giving a reason) YES/NO

I give permission for my child's data from this study to be shared with other researchers provided that my anonymity is completely protected. YES/NO

Do you agree for your child to take part in the study? YES/NO

Do you agree for your child to be video recorded for ten minutes three times a week in the classroom for up to twelve weeks? YES/NO

"This study has been explained to me to my satisfaction, and I agree for my child to take part. I understand that I am free to withdraw at any time."

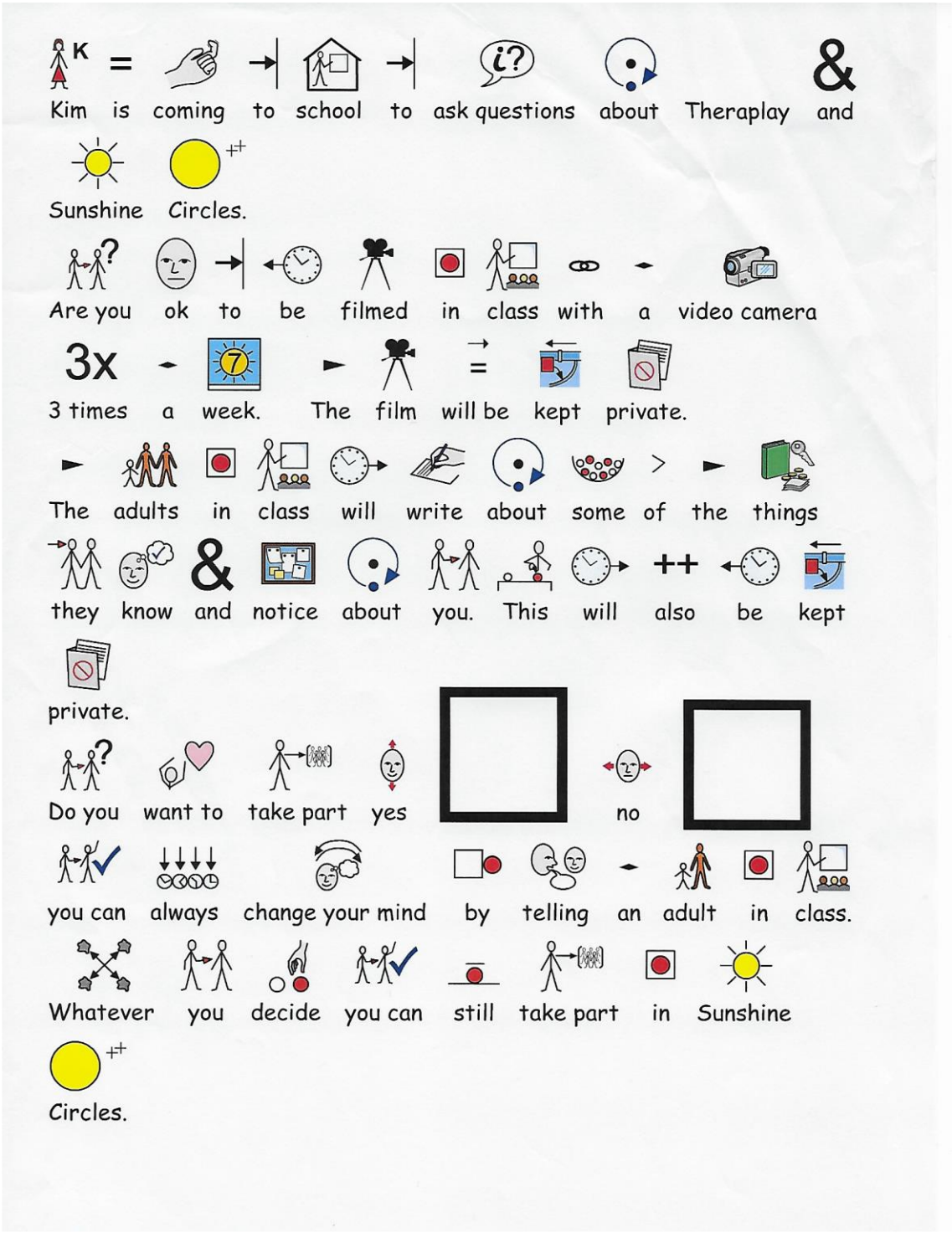
Signature of the Parent/Carer: Date:

Name (in block capitals)

I have explained the study to the above participant and he/she has agreed to take part.

Signature of researcher: Date:

7.9 Appendix I. Information Letter for Children



7.10 Appendix J. Information and Consent Letters for Incidental Filming

Dear Sir/Madam,

I am a Trainee Educational Psychologist at the University of Nottingham, undertaking a research study on the impact of Theraplay® intervention on social, emotional and mental health need's classroom behaviour and relationship with school staff. This research is supervised by Dr Sarah Atkinson, University of Nottingham.

I am hoping to undertake an evaluation of an intervention for children within your child's school. As part of that evaluation I aim to complete some video recordings of the children within the classroom environment. This therefore may mean the footage taken may capture your child in the background or interacting with the children and I am therefore writing to you to ask for your consent to video record.

Video recording will involve a tripod camera being set up within the classroom to capture the children engaged in typical classroom activities. This will completed by a school staff member and be for ten minutes each time, three times a week for a maximum of twelve weeks. When the video camera is on school premises and not in use it will be stored in a locked cupboard.

I have an enhanced Disclosure and Barring Service (DBS) clearance and can assure you that all of the work will be carried out professionally in line with the ethical guidelines of the British Psychological Society and Nottingham University Guidance. No information will be taken of your child and when the video footage is transferred it will be encrypted and stored securely on a password-protected computer and destroyed up to two years after the research is published.

Participation in this study is totally voluntary and you are under no obligation to take part. If you are happy for filming to take place within your child's classroom and for them to potentially be incidentally filmed, please sign and return the consent form attached as soon as possible. If you do not wish for your child to be incidentally filmed within the classroom, please indicate this on the consent form. If you do not wish to consent then I will speak with school staff to make arrangements for your child not to be recorded when classroom video observations are made. If you require any further information on the study, please feel free to contact me or my supervisor using the details given below.If you have any complaints about the study, please contact: Stephen Jackson (Chair of Ethics Committee) stephen.jackson@nottingham.ac.uk.

Thank you in anticipation,

Yours sincerely

Kimberley Bennion
Trainee Educational Psychologist
University of Nottingham

Dr Sarah Atkinson
Academic and Professional Tutor
University of Nottingham

The University of Nottingham

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SCHOOL OF PSYCHOLOGY

PARENT/CARERS INCIDENTAL VIDEO RECORDING CONSENT FORM

Investigating the Impact of Theraplay® Intervention on Children with Social Emotional and Mental Health Need's Classroom Behaviour and their Relationship with School Staff

Researcher: Kimberley Bennion

Ethics Approval Number: S1059R

Supervisor: Dr Sarah Atkinson, School of Psychology, University of Nottingham

The parent/carer should answer these questions independently:

Have you read and understood the Information Sheet? YES/NO

Have you had the opportunity to ask questions about the study? YES/NO

Have all your questions been answered satisfactorily? YES/NO

Do you understand that you are free to withdraw your child from the study? (at any time and without giving a reason)
YES/NO

I give permission for my child's data from this study to be shared with other researchers provided that my anonymity is completely protected. YES/NO

Do you agree for your child to take part in the study? YES/NO

Do you agree for your child to be incidentally video recorded for ten minutes three times a week in the classroom for up to twelve weeks?
YES/NO

"This study has been explained to me to my satisfaction, and I agree for my child to take part. I understand that I am free to withdraw at any time."

Signature of the Participant: Date:

Name (in block capitals)

I have explained the study to the above participant and he/she has agreed to take part.

Signature of researcher: Date:

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Dear Sir/Madam,

I am a Trainee Educational Psychologist at the University of Nottingham, undertaking a research study on the impact of Theraplay® intervention on social, emotional and mental health need's classroom behaviour and relationship with school staff. This research is supervised by Dr Sarah Atkinson, University of Nottingham.

I am hoping to undertake an evaluation of an intervention for children within the class that you are currently working within. As part of that evaluation I aim to complete some video recordings of the children within the classroom environment. This therefore may mean the footage taken may capture you in the background or you interacting with the children and I am therefore writing to you to ask for your consent to video record.

Video recording will involve a tripod camera being set up within the classroom to capture the children engaged in typical classroom activities. This will completed by a school staff member and be for ten minutes each time, three times a week for a maximum of twelve weeks. When the video camera is on school premises and not in use it will be stored in a locked cupboard.

I have an enhanced Disclosure and Barring Service (DBS) clearance and can assure you that all of the work will be carried out professionally in line with the ethical guidelines of the British Psychological Society and Nottingham University Guidance. No information will be taken of you and all video footage will be encrypted and stored securely on a password-protected computer and destroyed up to two years after the research is published.

Participation in this study is totally voluntary and you are under no obligation to take part. If you are happy for filming to take place within the classroom you work in and for you to potentially be incidentally filmed, please sign and return the consent form attached as soon as possible. If you do not wish to be incidentally filmed within the classroom, please indicate this on the consent form. If you do not wish to consent then I will speak with the school Head Teacher or XXXXX to make arrangements for you not to be recorded when classroom video observations are made. If you require any further information on the study, please feel free to contact me or my supervisor using the details given below.

If you have any complaints about the study, please contact: Stephen Jackson (Chair of Ethics Committee) stephen.jackson@nottingham.ac.uk.

Thank you in anticipation,

Yours sincerely

Kimberley Bennion

Trainee Educational Psychologist

University of Nottingham

Tel: 01604 364770

Email: lpxkab@exmail.nottingham.ac.uk

Dr Sarah Atkinson

Academic and Professional Tutor

University of Nottingham

0115 8467238

lpasa3@exmail. nottingham.ac.uk

The University of Nottingham

UNITED KINGDOM · CHINA · MALAYSIA

SCHOOL OF PSYCHOLOGY

SCHOOL STAFF INCIDENTAL VIDEO RECORDING CONSENT FORM

Investigating the Impact of Theraplay® Intervention on Children with Social Emotional and Mental Health Need's Classroom Behaviour and their Relationship with School Staff

Researcher: Kimberley Bennion

Supervisor: Dr Sarah Atkinson, School of Psychology, University of Nottingham

Ethics Approval Number: S1059R

The participant should answer these questions independently:

Have you read and understood the Information Sheet? YES/NO

Have you had the opportunity to ask questions about the study? YES/NO

Have all your questions been answered satisfactorily? YES/N0

Do you understand that you are free to withdraw from the study?(at any time and without giving a reason). YES/NO

I give permission for my data from this study to be shared with other researchers provided that my anonymity is completely protected. YES/NO

Do you agree to be incidentally video recorded for ten minutes three times a week in the classroom for up to twelve weeks? YES/NO

Do you agree to take part in the study? YES/NO

"This study has been explained to me to my satisfaction, and I agree to take part. I understand that I am free to withdraw at any time."

Signature of the Participant: Date:

Name (in block capitals)

I have explained the study to the above participant and he/she has agreed to take part.

Signature of researcher: Date:

7.11 Appendix K. Confirmation of Ethical Approval for Amendments Received from University of Nottingham Ethics Committee

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

School of Psychology
The University of Nottingham
University Park
Nottingham
NG7 2RD

tel: +44 (0)115 846 7403 or (0)115 951 4344

SJ/tp

Ref: S1141

Tuesday 22nd January 2019

Dear Sarah and Kimberly

Title of the new project: Examining the impact of a Theraplay intervention within an education setting on classroom behavior and student-teacher relationships for children identified with Social, Emotional and Mental Health (SEMH) difficulties
Applicants: Kimberly Bennion

Further to your request for Chair Approval for amendments to the project:-

Details of the previous study:

Applicant: Kimberly Bennion
Title: Examining the impact of a Theraplay intervention within an education setting on classroom behaviour and student-teacher relationships for children identified with Social, Emotional and Mental Health (SEMH) difficulties
Date of approval: 30th May 2019
Reference number (if known): S1059R

As Chair of the Ethics Committee I have considered your request and I am happy to grant approval for the following changes:

-Approved

Final responsibility for ethical conduct of your research rests with you or your supervisor. The Codes of Practice setting out these responsibilities have been published by the British Psychological Society and the University Research Ethics Committee. If you have any concerns whatever during the conduct of your research then you should consult those Codes of Practice.

Independently of the Ethics Committee procedures, supervisors also have responsibilities for the risk assessment of projects as detailed in the safety pages of the University web site. Ethics Committee approval does not alter, replace, or remove those responsibilities, nor does it certify that they have been met.

Yours sincerely



The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

School of Psychology
The University of Nottingham
University Park
Nottingham
NG7 2RD

tel: +44 (0)115 846 7403 or (0)115 951 4344

Professor Stephen Jackson
Chair, Ethics Committee

7.12 Appendix L. Information and Consent Letters for Interviews to be Completed for CS1

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Date: 13.02.2019

Dear Sir/Madam,

Thank you for agreeing for your child to take part in my research looking at the impact of Theraplay® intervention on social, emotional and mental health need's classroom behaviour and relationship with school staff.

I am writing to update you on a change to the research and offer you an opportunity to contact me if you have any concerns. To help get a better understanding of the impact of the Theraplay intervention your child has recently took part in I hope to complete some interviews with the Theraplay practitioner and school staff member who facilitated the intervention. The interview will focus on their views with regards to the Theraplay intervention and what impact it may have had on the children's behaviour and their relationship with staff members.

As before, all information obtained will be anonymised, stored securely and confidentially during the study. All information will be destroyed two years after the completion and publication of the research

If you have any questions or concerns about the interview, please feel free to contact me or my supervisor using the details given below. If you have any complaints about the study, please contact: Stephen Jackson (Chair of Ethics Committee) stephen.jackson@nottingham.ac.uk.

Thank you once again for your involvement in the project.

Yours faithfully

Kimberley Bennion

Trainee Educational Psychologist

University of Nottingham

Tel: 01604 364770
Email: lpxkab@exmail.nottingham.ac.uk

Dr Sarah Atkinson

Academic and Professional Tutor

University of Nottingham

01158467238
lpasa3@exmail. nottingham.ac.u

Date: 21.02.2019

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Dear Sir/Madam,

Thank you for agreeing to take part in my research looking at the impact of Theraplay® intervention on social, emotional and mental health need's classroom behaviour and relationship with school staff.

I am writing to ask for further support with the study by asking if you would be willing to complete an interview with me to gather your views with regards to the Theraplay intervention you have recently facilitated. This will involve me asking you some questions about the Theraplay intervention and should take no longer than thirty minutes. The interview will be recorded and later transcribed by the researcher.

As before, all information obtained will be anonymised, stored securely and confidentially during the study. All information will be destroyed two years after the completion and publication of the research

If you have any questions or concerns about the research, please feel free to contact me or my supervisor using the details given below. If you have any complaints about the study, please contact: Stephen Jackson (Chair of Ethics Committee) stephen.jackson@nottingham.ac.uk.

If you are happy to complete this interview, please sign and return the consent form attached as soon as possible. Even if you consent to participating now but feel you would like to withdraw at a later stage, you can withdraw at any time.

Thank you once again for your involvement in the project.

Yours faithfully

Kimberley Bennion

Trainee Educational Psychologist

University of Nottingham

Tel: 01604 364770
Email: lpxkab@exmail.nottingham.ac.uk

Dr Sarah Atkinson

Academic and Professional Tutor

University of Nottingham

0115 8467238
lpasa3@exmail. nottingham.ac.uk

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

School of Psychology
INTERVIEW CONSENT FORM

Investigating the Impact of Theraplay® Intervention on Children with Social Emotional and Mental Health needs on Classroom Behaviour and their Relationship with School Staff
Ethics Approval Number: S1059R
Researcher: Kimberley Bennion
Supervisor: Dr Sarah Atkinson, School of Psychology, University of Nottingham

The participant should answer these questions independently:

- Have you read and understood the letter? YES/NO
- Have you had the opportunity to ask questions about the interview? YES/NO
- Have all your questions been answered satisfactorily? YES/NO
- Do you understand that you are free to withdraw from the interview? YES/NO (at any time and without giving a reason)
- I give permission for my data from this interview to be shared with other researchers provided that my anonymity is completely protected. YES/NO
- Do you agree for the interview to be recorded? YES/NO
- Do you agree to take part in the interview? YES/NO

"This study has been explained to me to my satisfaction, and I agree to take part. I understand that I am free to withdraw at any time."

Signature of the Participant: Date:

Name (in block capitals)

I have explained the study to the above participant and he/she has agreed to take part.

Signature of researcher: Date

7.13 Appendix M. Theraplay Log

Please do not include any names of children, staff members or school in completion of this log - pseudonyms only.

Date: Session Number: Staff Members Initials: Length of session:

Child's identified need:

Aims for the session:

Did the session include:	Yes : Tick No: Cross	Additional Comments
Funny walk in		
Welcome song		
Check-in time		
Structure Activities		
Nurture Activities		
Challenge Activities		
Engagement Activities		
Snack and Drink		
Goodbye Song		
Funny walk out		

How did the child present today?

Additional comments:

7.14 Appendix N. Operational Definitions of Target Behaviours for CS1

Participant	Target Behaviour One	Target Behaviour Two
Angus	**Time spent on his own and apart from the other children.** This could include time sitting or playing on his own separate to the group. It may also include sitting on his own during free play times but not verbally or non-verbally interacting with other students. **Examples**: Hiding under the desk or sitting on the floor away from the children. Having his back away from the class activity. Drawing on his own. Not to include being on his own as part of a game such as hide and seek that he is taking part in. **Coding**: Interval coding (10 seconds intervals)	**Interactive play with peers** Definition from (Watkins, O'Reilly, Kuhn, & Ledbetter-Cho, 2018). Child being engaged in a play activity with a peer **Examples**: Pushing a toy truck, playing a game, using art materials) within approximately 2 m of a peer and interacting either verbally (e.g., commenting to the peer, asking questions, giving directions) or nonverbally (e.g., taking turns, looking at the peer when the peer is talking, following the peer's direction or request, sharing play materials) Not to include interactive play with just an adult. **Coding**: Interval coding (10 seconds intervals)

Brian	**Number of words spoken** Not to include screaming or crying in which words are not clear. **Coding**: Event sampling	**Cooperative play with peers** Definition adapted from Farmer-Dougan and Kaszuba (2007). Child is engaged in social interactions with other children or staff members in which the play is organised or there is a shared sense of the goal of the play. The child is shown to both interested in the play activity and the children they are playing with. **Examples**: pretend play in which the children have assigned roles such as being 'chef' and the customer or activities such as building a tower together. Can include games such as hide and seek where there are clear roles in the play. Not to include associative, parallel, onlooker, and solitary play. **Coding**: Interval coding (10 seconds intervals)

Malcolm	**Intrusion of children or adult's personal space.** Behaviours directed towards a child or an adult that is in close proximity to that person which is uninvited. **Examples include:** Uninvited touching such as putting his arms around another person, standing near a person in which they look uncomfortable, move back or receive comment from a staff member. Wagging fingers or putting toys in close proximity of a person, roaring close to a child's face after being asked to stop. Personal space was identified as 18 inches. **Coding:** Event sampling	**Co-operative play with peers** Definition adapted from Farmer-Dougan and Kaszuba (2007). Child is engaged in social interactions with other children or staff members in which the play is organised or there is a shared sense of the goal of the play. The child is shown to both interested in the play activity and the children they are playing with. **Example:** pretend play in which the children have assigned roles such as being 'chef' and the customer or activities such as building a tower together. Can include games such as hide and seek where there are clear roles in the play. Not to include associative, parallel, onlooker, and solitary play. **Coding:** Interval coding (10 seconds intervals)

7.15 Appendix O. Examples of Observation Schedules Used in CS1

Observation Record – Interval Sample – Play Codes

Instructions:

Please observe the child for 10 seconds and pause the video to record on the observation form whether the target behaviour occurred. If there were different behaviours within the 10 seconds, record the behaviour that best represents what occurred during that interval (i.e. the state present during the greater part of the interval). Video recordings will be a maximum of ten minutes.

If the child is not visible within the recording, please record OUT.

Definitions of the Behaviours:

Solitary play	Child is playing on their own with toys that are different to other children and is uninterested or unaware of what others are doing around them. Examples: Child playing in the toy kitchen area and other children are playing with different toys in the room.
Parallel play	Child is playing nearby other children or adults with similar toys, but the play is independent Examples: Child playing with the trains next to another child but there is no interaction
Associative play	A child is socially interacting with other children doing play but there is little or no organisation, or sense of a common goal. Examples: child is playing in the soft play area and may talk to the children or adults but there is no organisation or rules of play in the game.
Cooperative play	Child is engaged in social interactions with other children or staff members in which the play is organised or there is a shared sense of the goal of the play. The child is shown to be both interested in the play activity and the children they are playing with. **Examples**: pretend play in which the children have assigned roles such as being 'chef' and the customer or activities such as building a tower together. Can include games such as hide and seek where there are clear roles and rules in the play.

Time Interval	Solitary	Parallel	Associative	Cooperative
10				
20				
30				
40				
50				
60 (one minute)				
10				
20				
30				
40				
50				
60 (two minute)				
10				
20				
30				
40				
50				
60 (three minute)				
10				
20				
30				
40				
50				
60 (four minute)				
10				
20				
30				
40				
50				
60 (five minute)				
10				
20				
30				
40				
50				

Time Interval	Solitary	Parallel	Associative	Cooperative
60 (six minute)				
10				
20				
30				
40				
50				
60 (seven minute)				
10				
20				
30				
40				
50				
60 (eight minute)				
10				
20				
30				
40				
50				
60 (nine minute)				
10				
20				
30				
40				
50				
60 (ten minute)				
Total				
Percentage				

Observation Record – Event Sample – Intrusion of Personal Space

Instructions:

Please observe the child for 10 seconds and pause the video to record on the observation form how many times the target behaviour occurred. Video recordings will be a maximum of ten minutes.

If the child is not visible within the recording or you are unsure, please record OUT.

Definitions of the Behaviours:

Intrusionof an adult or child's personal space

Behaviours directed towards a child or an adult that is in close proximity to that person which is uninvited. Personal space is defined as 18 inches.

Examples include:

Uninvited touching such as putting his arms around another person, standing near a person in which they look uncomfortable, move back or receive comment from a staff member. Wagging fingers or putting toys in close proximity of a person, making loud noises close to a person's face after being asked to stop. Personal space was identified as 18 inches.

Time Interval	Personal Space
10	
20	
30	
40	
50	
60 (one minute)	
10	
20	
30	
40	
50	
60 (two minute)	
10	
20	
30	
40	
50	
60 (three minute)	
10	
20	
30	
40	
50	
60 (four minute)	
10	
20	
30	
40	
50	

Time Interval	Personal Space
60 (five minute)	
10	
20	
30	
40	
50	
60 (six minute)	
10	
20	
30	
40	
50	
60 (seven minute)	
10	
20	
30	
40	
50	
60 (eight minute)	
10	
20	
30	
40	
50	
60 (nine minute)	
10	
20	
30	
40	
50	
60 (ten minute)	
Total	
Percentage	

7.16 Appendix P. Semi-structured Interview Schedule for Education Staff and Theraplay Facilitator

Interviewer: Kim Bennion (TEP/Researcher)

Interviewees: Theraplay Practitioner and school staff member

Purpose of Interview: To gather further information with regards to the staff member and Theraplay practitioner's perceptions of the intervention.

Storage of Data: Interview will be recorded by Dictaphone. Recordings will be transferred to a password protected computer and encrypted. Data will be stored for two years and then destroyed. Recordings will be transcribed by the researcher and saved into a word document and be encrypted and stored on a password protected computer. Any names will be anonymised.

Proposed Interview Schedule:

It is proposed that this will be a semi-structured interview. Questions will focus on three areas:

1. **Pragmatics of the intervention (for those who facilitated the intervention)**
    1. Tell me a little about the Theraplay intervention you delivered
        1. What did it look like
        2. How frequent
        3. Length of sessions
        4. What activities did you complete in the intervention?
    2. How did you find the Theraplay intervention?
    3. Was the intervention similar to other Theraplay interventions you have facilitated?
    4. Were there any practical issues that you experienced when facilitating the intervention?
    5. How did you feel the child(ren) responded to the intervention?
    6. Would you do the intervention again?
2. **Child(ren)'s behaviour in class**
   Example questions:
    1. Did you notice any difference in the child(ren)'s behaviour in class during and after the intervention?
    2. If yes, can you tell me more as to what this looked like.
    3. If no, can you tell me why this may be.
    4. Were there any other factors that may have influenced the children's behaviour
3. **Child(ren)'s relationships with staff members**

Example questions:

1. Did you notice any difference in the child(ren)'s behaviour with staff members during and after the intervention?
2. If yes, can you tell me more as to what this looked like.
3. If no, can you tell me why this may be.
4. Were there any other factors that may have influenced the children's behaviour

7.17 Appendix Q. Parents Debrief Letter

SCHOOL OF PSYCHOLOGY
INFORMATION SHEET FOR PARENT/CARERS

Investigating the Impact of Theraplay® Intervention on Children with Social Emotional and Mental Health Need's Behaviour and their Relationship with School Staff

Ethics Approval Number: S1059R

Dear Parent/Carer,

Thank you for your child's participation in my research study which aimed to examine the impact of Theraplay interventions on children's classroom behaviours and children's relationships with school staff members.

I am writing to let you know that data collection for research purposes has now come to an end, although I understand that school staff hope to continue with the Theraplay group 'Sunshine Circles' in class. The data collected will be analysed in the future months and if you would like to discuss the research findings then please do not hesitate to contact myself using the contact details below.

Participation in the study is totally voluntary and you are still free to withdraw your child's data. All data collected will be kept anonymous and used for research purposes only. If you have any complaints about the study, please contact Stephen Jackson (Chair of Ethics Committee) - stephen.jackson@nottingham.ac.uk.

If you should have any questions with regards to Sunshine Circles or your child's wellbeing subsequent to the intervention, then please contact their Class Teacher XXXXX or XXXX s at school.

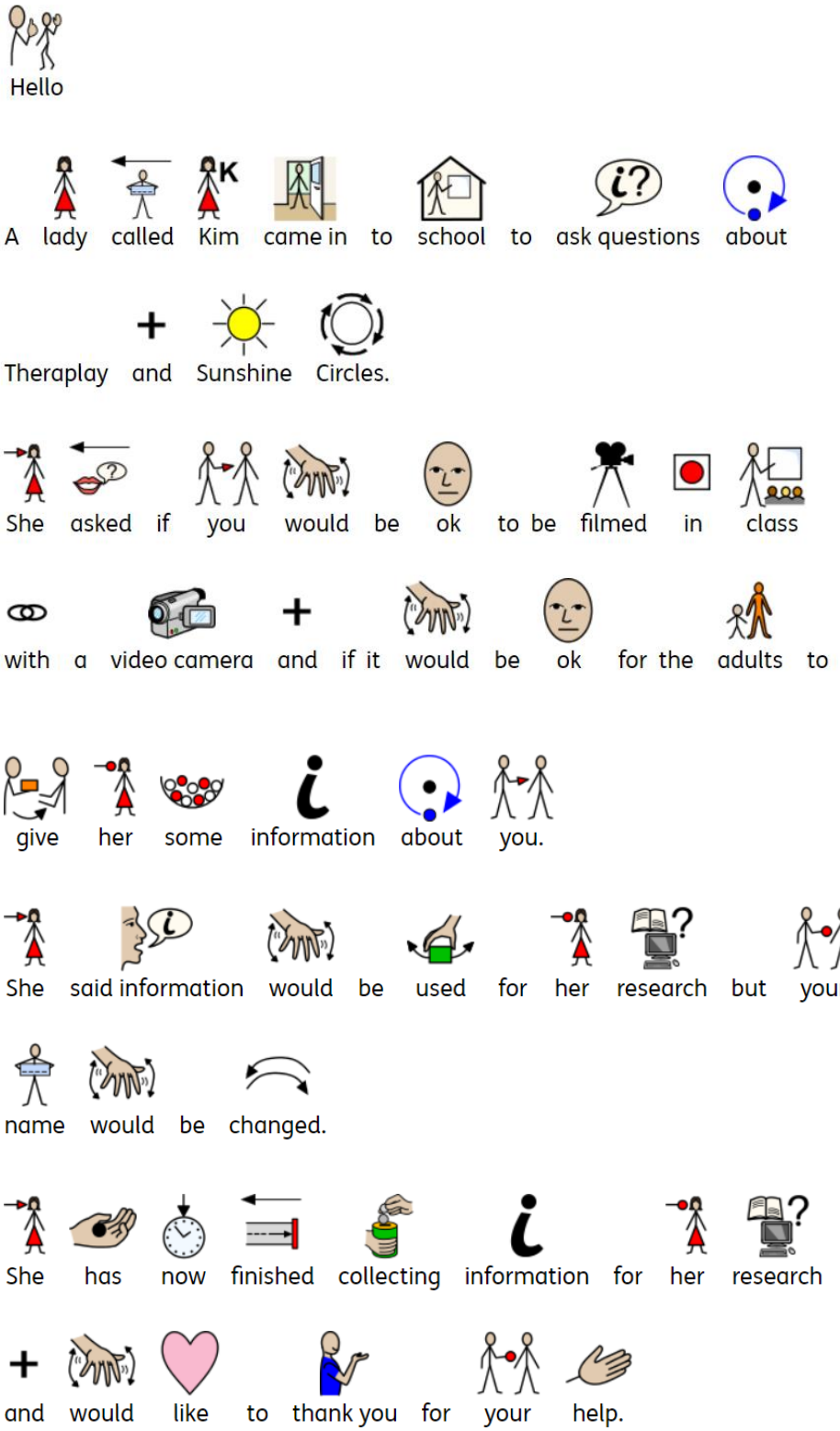
Thank you once again,

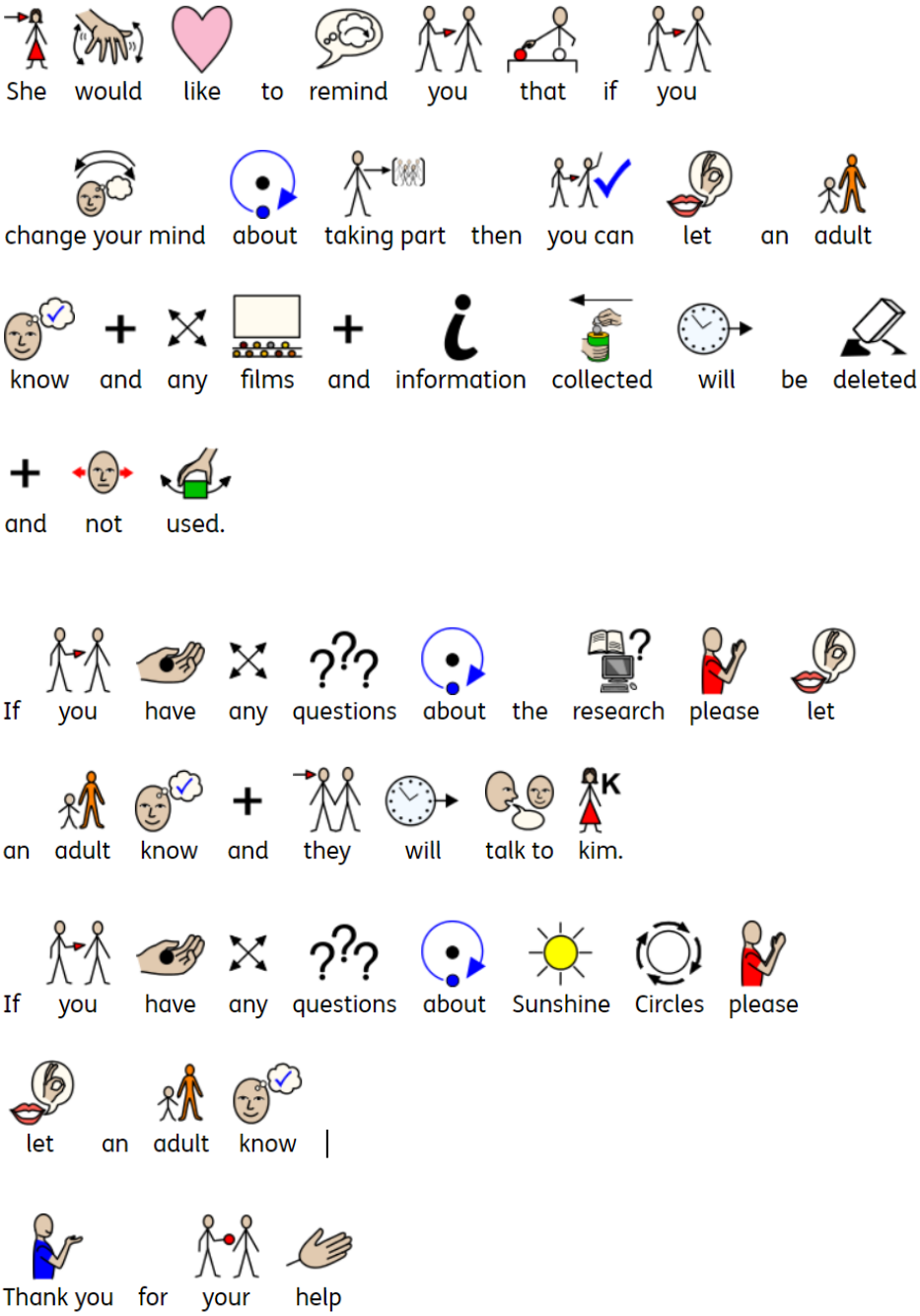
Yours faithfully,

Researcher: Kimberley Bennion
Trainee Educational Psychologist
University of Nottingham
Tel: 01604 364770
Email: lpasa3@exmail.nottingham.ac.uK

Supervisor: Dr Sarah Atkinson
Academic and Professional Tutor
University of Nottingham
0115 8467238
lpxkab@exmail.nottingham.ac.uk

7.18 Appendix R. Children's Debrief Letter




She would like to remind you that if you
change your mind about taking part then you can let an adult
know and any films and information collected will be deleted
and not used.
If you have any questions about the research please let
an adult know and they will talk to kim.
If you have any questions about Sunshine Circles please
let an adult know
Thank you for your help

7.19 Appendix S. Staff Debrief Letter

SCHOOL OF PSYCHOLOGY
INFORMATION SHEET FOR SCHOOL STAFF

Investigating the Impact of Theraplay® Intervention on Children with Social Emotional and Mental Health Need's Behaviour and their Relationship with School Staff

Ethics Approval Number: S1059R

Dear Sir/Madam,

Thank you for your participation in my research study which aimed to examine the impact of Theraplay interventions on children's classroom behaviours and children's relationships with school staff members.

I am writing to let you know that data collection for research purposes has now come to an end, although I understand that you hope to continue with the Theraplay group 'Sunshine Circles' in class. The data collected will be analysed in the future months and if you would like to discuss the research findings then please do not hesitate to contact myself using the contact details below.

As noted previously, all data collected will be kept anonymous and used for research purposes only. Participation is totally voluntary and you are still free to withdraw the data. If you have any complaints about the study, please contact Stephen Jackson (Chair of Ethics Committee) - stephen.jackson@nottingham.ac.uk.

Thank you once again,

Yours faithfully,

Researcher: Kimberley Bennion

Trainee Educational Psychologist

University of Nottingham

Tel: 01604 364770

Email: lpasa3@exmail.nottingham.ac.uK

Supervisor: Dr Sarah Atkinson

Academic and Professional Tutor

University of Nottingham

0115 8467238

lpxkab@exmail.nottingham.ac.uk

7.20 Appendix T. Information and Consent Letter for NM/TF for CS2

The University of Nottingham

UNITED KINGDOM · CHINA · MALAYSIA

Dear Sir/Madam,

I am a Trainee Educational Psychologist at the University of Nottingham, undertaking a research study on the impact of Theraplay® intervention on nursery-aged children identified as having social, emotional and mental health needs on their classroom behaviour and relationship with nursery staff. This research is supervised by Dr Sarah Atkinson, University of Nottingham.

I understand that your nursery is due to have a Theraplay® intervention implemented soon and therefore I am writing to ask for your consent to be involved in research examining the impact of this intervention.

Enclosed is an information sheet of the purposes and what would be asked of your nursery with regards to this research.

If you are happy to participate in this study, please sign and return the consent form attached as soon as possible. Even if you consent to participating now but feel you would like to withdraw from the study at a later stage, you can withdraw from the study at any time. On completion of the study I will be happy to offer feedback both in person and by means of an Executive Summary of the study for all those involved.

If you require any further information on the study, please feel free to contact me or my supervisor using the details given below. If you have any complaints about the study, please contact: Stephen Jackson (Chair of Ethics Committee) stephen.jackson@nottingham.ac.uk.

Thank you in anticipation,

Yours sincerely

Kimberley Bennion

Trainee Educational Psychologist

School of Psychology

University of Nottingham

Tel: 01604 364770

lpxkab@exmail.nottingham.ac.uk

Dr Sarah Atkinson

Academic and Professional Tutor

School of Psychology

University of Nottingham

0115 8467238Email:

lpasa3@exmail. nottingham.ac.uk

Information Sheet for Nursery

What is the Purpose of the Research?

The aim of the research is to understand the effectiveness of a Theraplay® intervention on nursery and primary-aged children who have been identified as having social, emotional and mental health (SEMH) needs, and how this effects their behaviour within nursery and their relationship with the member of staff completing the intervention with the child. There have been a limited number of studies examining the effectiveness of Theraplay® within nurseries, and it is hoped this study will be add to the research base. The study would form part of my course requirements, whilst being of interest to Theraplay® and the Local Authority.

What Would Be Asked of Your Nursery?

Identification of a Child: The research would require you to **identify a child/children with social, emotional and mental health needs that the nursery are due to start work with using the Theraplay® approach**. Once a child has been identified informed consent would then be gathered from whoever has parental responsibility.

Regular Observations and Completion of Form of the Child in the Classroom: The evaluation would consist of gathering observational repeated measures. These repeated measures would consist of nursery staff identifying a target behaviour the child shows within nursery (such as shouting out) and then completing regular observations of the child and rating their behaviour using a Direct Behaviour Rating Scale Form (Chafoulea, Riley-Tillman, Christ & Sugai, 2009). The form requires the nursery staff member to rate on a scale from 0-100 the percentage of time the child showed the behaviour and should take no longer than five minutes to complete each time. The length of each observation would be decided with you and the nursery staff member as to what is feasible. The observations would start two weeks before the start of the intervention and continue once the Theraplay® intervention has begun for a maximum of ten weeks. If the Theraplay intervention has ended before ten weeks, then data collection will end at this time. To help improve the accuracy of the ratings, I would ask to join the nursery member for up to five observations, so a comparison of ratings can be made.

The completed rating scales would need to be kept within a secure location within the nursery until they can be collected by myself. No names of the children or staff members should be put on the form to help protect the children's identity.

Completion of Questionnaires: I would also ask the nursery's staff member supporting the child with the Theraplay® intervention to complete two questionnaires before and after the intervention. One questionnaire about the staff member's views of the child's behaviour in nursery, and another questionnaire to gather information as to their relationship with the child.

Completion of Log: To help monitor the fidelity of the intervention, either **the nursery staff member or the Theraplay practitioner would be asked to complete a brief log of how the Theraplay® session went after each session** and to note any external variables that may

impact the results of the study. The log will also give insights into how the staff member approached the Theraplay® intervention, as this is an intervention that is typically individualised and adapted to the child's need. I appreciate the time constraint and demands on nursery staff, and that the study requires commitment from your nursery. If you have suggestions of how staff can be supported with these demands, then these would be greatly welcomed.

Theraplay Intervention: The person implementing the Theraplay intervention must be trained in at least Level One Theraplay or Group Theraplay and have an enhanced Disclosure Barring Service (DBS) clearance. They would not be advised by myself as to what to do within the sessions and would be encouraged to complete the sessions as they would normally do. Nurseries will have responsibility to follow their normal duty of care for children with regards to the intervention including the implementation of their usual health and safety and safeguarding procedures.

Completion of Interviews with Theraplay Facilitator and Nursery Staff Member: To help gather further information as to the impact of the Theraplay intervention nursery staff members and the person facilitating the Theraplay intervention within the nursery would be invited to complete an interview. The interview would focus on their views with regards to the Theraplay intervention and what impact it may have had on the children's behaviour and the children's relationship with staff members.

Responsibilities of the Researcher

I have an enhanced Disclosure and Barring Service (DBS) clearance and can assure you that all of the work will be carried out professionally in line with the ethical guidelines of the British Psychological Society and Nottingham University Guidance.

All data obtained will be anonymised, stored securely and confidentially during the study. All raw data will be destroyed two years after the completion and publication of the research.

I would also ensure that those with parental responsibility were fully informed and had given consent for their child to participate in the study. They would also be informed of their right to withdraw from the research at any time and withdrawing would not stop the Theraplay® work being completed by your nursery. Right to withdraw would mean that any information gathered so far would be destroyed and not used within the research.

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

School of Psychology
NURSERY CONSENT FORM

Investigating the Impact of Theraplay® Intervention on Children with Social Emotional and Mental Health needs on Behaviour and their Relationship with Nursery Staff

Ethics Approval Number: S1059R

Researcher: Kimberley Bennion
Supervisor: Dr Sarah Atkinson, School of Psychology, University of Nottingham

The participant should answer these questions independently:

- Have you read and understood the Information Sheet? YES/NO
- Have you had the opportunity to ask questions about the study? YES/NO
- Have all your questions been answered satisfactorily? YES/NO
- Do you understand that you are free to withdraw from the study? YES/NO
  (at any time and without giving a reason)
- I give permission for data from this study to be shared with other researchers provided that my anonymity is completely protected. YES/NO
- Do you agree to take part in the study? YES/NO

"This study has been explained to me to my satisfaction, and I agree to take part. I understand that I am free to withdraw at any time."

Signature of the Participant: Date:

Name (in block capitals)

I have explained the study to the above participant and he/she has agreed to take part.

Signature of researcher: Date:

7.21 Appendix U. Information and Consent Letter for Parents – CS2

Dear Sir/Madam,

I am a Trainee Educational Psychologist at the University of Nottingham, undertaking a research study on the impact of Theraplay® interventions on children identified as having social, emotional or mental health (SEMH) need's behaviour and their relationship with nursery staff. This research is supervised by Dr Sarah Atkinson, University of Nottingham.

I understand your child is due to start a Theraplay® intervention within the nursery they are currently attending, and I am writing to ask for your consent to evaluate the effectiveness of this intervention. I am looking to examine what effect it has on behaviours and what effect it has on the child's relationship with nursery staff members supporting your child. Before you decide if you wish to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully.

What Would the Evaluation Involve?

The evaluation would consist of asking your child's nursery key worker and the nursery staff member supporting the Theraplay intervention within nursery to complete two questionnaires before and after the intervention. One questionnaire will include the nursery staff member's views of your child's behaviour in nursery, and another questionnaire will gather information as to their relationship with your child.

The evaluation would also involve a nursery staff member identifying a target behaviour(s) the child shows within nursery (such as shouting out). The nursery staff member would then be asked to complete regular observations of the child (up to three times a week) and then complete a rating scale of their behaviour(s). These observations would start two weeks before your child is due to start the Theraplay® work and continue once the Theraplay intervention has begun for a maximum of ten weeks. If the Theraplay intervention has ended before ten weeks, then data collection will end at this time. To help improve the reliability of the recordings I will also complete up to five observations of the child in class with the staff member so that comparisons can be made with regards to the ratings. Close monitoring with nursery staff will take place to ensure no undue distress is caused. Forms completed by staff will be kept within a secure location in nursery. They would then be later uploaded onto a password protected computer and encrypted.

Interviews would also be completed towards the end of the intervention with nursery staff members and the person facilitating the Theraplay intervention within the nursery. The interview would focus on their views with regards to the Theraplay intervention and what impact it may have had on the children's behaviour and their relationship with staff members.

What if I have Concerns or Questions about the Theraplay Intervention?

The person implementing the intervention would not be advised by myself as to what to do within the Theraplay sessions and would be encouraged to complete the sessions as they would normally do. I will ask nurseries that the person implementing the intervention is trained in Level One Theraplay or Group Theraplay, and have an enhanced Disclosure and Barring Service (DBS) clearance. Any concerns or questions with regards to the Theraplay intervention or the child's wellbeing can be directed to XXXXX or XXXXXX

What if I have Concerns or Questions about the Research?

I have a Disclosure and Barring Service (DBS) clearance and can assure you that all of the work will be carried out professionally in line with the ethical guidelines of the British Psychological Society and Nottingham University Guidance. All data obtained will be anonymised, stored securely and confidentially during the study. All raw data will be destroyed two years after the completion and publication of the research.

If you have any questions or concerns about the research, please feel free to contact me or my supervisor using the details given below. If you have any complaints about the study, please contact: Stephen Jackson (Chair of Ethics Committee) stephen.jackson@nottingham.ac.uk.

Right to Withdraw

Participation in this study is totally voluntary and you are under no obligation to take part. If you decide you do not wish your child to be part of this research, then your child can still take part in the Theraplay intervention planned by their nursery.

You and your child have the right to withdraw from the research at any time during the study without giving a reason. If you decide to withdraw your child from the research your child can still continue to take part in the Theraplay intervention. Withdrawal from the study will mean that any data collected about your child for research purposes will be destroyed and will not be used by the researcher.

If you are happy for your child to participate in this study, please sign and return the consent form attached as soon as possible. Even if you consent to participating now but feel you would like to withdraw from the study at a later stage, you can withdraw from the study at any time. On completion of the study I will be happy to offer feedback both in person and by means of an Executive Summary of the study for all those involved.

Thank you in anticipation,

Yours sincerely

Kimberley Bennion

Trainee Educational Psychologist

University of Nottingham

Dr Sarah Atkinson

Academic and Professional Tutor

University of Nottingham

The University of Nottingham

UNITED KINGDOM · CHINA · MALAYSIA

School of Psychology

PARENT/CARER CONSENT FORM

Investigating the Impact of Theraplay® Intervention on Children with Social Emotional and Mental Health Need's Behaviour and their Relationship with Nursery Staff

Ethics Approval Number: S1059R

Researcher: Kimberley Bennion

Supervisor: Dr Sarah Atkinson, School of Psychology, University of Nottingham

The parent/carer of the identified child should answer these questions independently:

Have you read and understood the Information Sheet? YES/NO

Have you had the opportunity to ask questions about the study?
YES/NO

Have all your questions been answered satisfactorily? YES/NO

Do you understand that you and your child are free to withdraw from the study? (at any time and without giving a reason)
YES/NO

I give permission for my child's data from this study to be shared with other researchers provided that my anonymity is completely protected. YES/NO

Do you agree for your child to take part in the study?
YES/NO

Do you agree for your child to be observed and for a rating scale of their behaviour(s) to be completed three times a week for up to twelve weeks?
YES/NO

"This study has been explained to me to my satisfaction, and I agree for my child to take part. I understand that I am free to withdraw at any time."

Signature of the Parent/Carer: Date:

Name (in block capitals)

I have explained the study to the above parent/carer and he/she has agreed to take part.

Signature of researcher: Date

7.22 Appendix V. Operational Definitions of Target Behaviours for CS2

Participant	Target Behaviour One	Target Behaviour Two
David	**Sitting appropriately at group times.** **Examples:** sitting on his bottom or kneeling on his heels on the carpet facing the teacher/nursery staff member, or activity. If talking or singing to use an inside voice. **Responses not recorded as sitting appropriately:** walking around the room, crying, hitting other children, shouting, lying on the floor, engaging with materials other than those included in the current circle activity. Event: Group times – children put in groups to do activities such as singing. Not to include Group Theraplay sessions.	**Behaviour Two Description: Following verbal instructions from staff members** Completing actions to a verbal instruction from an adult within ten seconds of that instruction given. For example, putting a toy down when given the instruction 'please put the toy down'. **Not to include**: instructions that may be perceived to be vague or unclear to the child, for example instructions posed as questions such as 'would you like to put that toy down?' Event: Group times – children put in groups to do activities such as singing. Not to include Group Theraplay sessions.

Nick	**Sitting appropriately at group times** **Examples:** sitting on their bottom or kneeling on their heels on the carpet facing the teacher/nursery staff member, or activity. If talking or singing to use an inside voice. **Responses not recorded as sitting appropriately:** walking around the room, crying, hitting other children, shouting, lying on the floor, engaging with materials other than those included in the current circle activity. **Situation for behaviours:** Group times – children put in groups to do activities such as singing. Not to include Group Theraplay sessions.	
Roger	**Playing appropriately with peers.** **Examples include:** Child asks to use toys/materials another child is using; child offers toys/materials to another child	

	either independently or when asked; child makes a comment towards a child such as praise or greeting, child waiting his turn when a child is using a toy; child uses words to express wants and feelings. **Responses not recorded as playing appropriately:** hitting/kicking/pushing other children; knocking objects down purposefully that other child(ren) are playing with (not as part of a game); name calling towards a peer. **Situation:** 'Free play' (where the child has choice in the activities they do) inside the nursery (not outdoor play)	
Richard	**Verbal Communication with same-age peers** **Examples include:** Asking questions to peers, saying hello to peers, answering questions from peers, making comments to peers. Can include a single	

	word or a group of phrases/sentences **Responses not recorded as verbal communication with same-age peers:** nodding, shaking his head, talking to adults, singing in the group **Situation for behaviours:** Group times – children put in groups to do activities such as singing. Not to include Group Theraplay sessions.	

7.23 Appendix W. Example of Instructions/DBR Observation Schedule - CS2

Dear XXXX

It was lovely to see you yesterday and many thanks for agreeing to help gather data for this study!

Just to summarise what we discussed yesterday:

Pre-questionnaires

- I gave you two questionnaires to complete with regards to the child you are collecting information for.
- This was the 'Student-Teacher Relationship' questionnaire and the 'Strength and Difficulties' questionnaire.
- You kindly said you would complete these and so I will collect them when I am next in on Tuesday 5th March 2019 – thank you!

Observation and rating scale/tally – three times a week measures

- You have also kindly agreed to complete regular measures for this child.
- We have agreed to look at two target behaviours – 'sitting appropriately at group times' and 'following instructions'. I have made amendments to the measure to accommodate this second target behaviour – please let me know if you have any questions or queries.
- The measure involves observing the child during 'group times' for a minimum of ten minutes and then completing the rating scale and tally afterwards.
- It is hoped the observations will be three times a week.
- This will start this week and continue each week up until the Easter holidays.
- I have included 18 copies of the measure but please let me know if you need more.

With regards to 'data'

- To help protect the children's identity and maintain confidentiality, please can you ensure that no names or identifiable information is included on the paperwork. For ease, I have given the child a number which is '**child one**'.
- Please could the paper copies be kept in a secure location in the nursery when not in use.
- I hope to come to the nursery once a week to collect any copies of the measure you have done, and when possible to do an observation with you.

I understand how busy you are, so your time with this is very much appreciated!

Best wishes,

Kim

Date: _____ M T W Th F Time: Start: _____ End: _____	**Student Code: Child One** **Rater Initials:**	**Activity Description:** **Number of adults:** **Number of children:**

Behaviour One Description: Sitting appropriately at group times.

Examples include: sitting on his bottom or kneeling on his heels on the carpet facing the teacher/nursery staff member, or activity. If talking or singing to use an inside voice.

Responses not recorded as sitting appropriately: walking around the room, crying, hitting other children, shouting, lying on the floor, engaging with materials other than those included in the current circle activity.

Behaviour Two Description: Following verbal instructions from staff members

Completing actions to a verbal instruction from an adult within ten seconds of that instruction given. For example putting a toy down when given the instruction 'please put the toy down'.

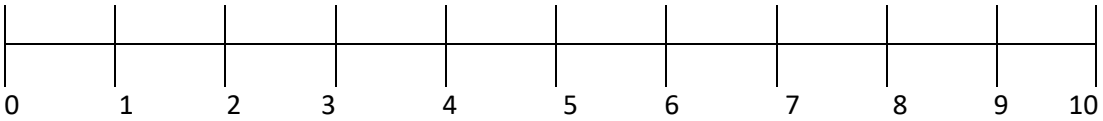
Not to include: instructions that may be perceived to be vague or unclear to the child, for example instructions posed as questions such as 'would you like to put that toy down?'

Situation for both behaviours: Group times – children put in groups to do activities such as singing. Not to include Group Theraplay sessions.

Frequency of Observation: Three times a week

Direction for Behaviour One: Place a mark along the line that best reflects the percentage of total time the student exhibited the target behaviour.

% of Total Time:



0% 50% 100%

Never Sometimes Always

Please Turn Over

Direction for Behaviour Two: Tally the number of instructions provided by adults and the number the times the child did or did not follow the instruction.

Number of instructions provided	Number of instructions followed	Number of instructions that were not followed

Additional Comments:

7.24 Appendix X. T-SDQ (Goodman, 1997)

Strengths and Difficulties Questionnaire T 4-17

For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain or the item seems daft! Please give your answers on the basis of the child's behaviour over the last six months or this school year.

Child's Name ..... Male/Female

Date of Birth.....

	Not True	Somewhat True	Certainly True
Considerate of other people's feelings	☐	☐	☐
Restless, overactive, cannot stay still for long	☐	☐	☐
Often complains of headaches, stomach-aches or sickness	☐	☐	☐
Shares readily with other children (treats, toys, pencils etc.)	☐	☐	☐
Often has temper tantrums or hot tempers	☐	☐	☐
Rather solitary, tends to play alone	☐	☐	☐
Generally obedient, usually does what adults request	☐	☐	☐
Many worries, often seems worried	☐	☐	☐
Helpful if someone is hurt, upset or feeling ill	☐	☐	☐
Constantly fidgeting or squirming	☐	☐	☐
Has at least one good friend	☐	☐	☐
Often fights with other children or bullies them	☐	☐	☐
Often unhappy, down-hearted or tearful	☐	☐	☐
Generally liked by other children	☐	☐	☐
Easily distracted, concentration wanders	☐	☐	☐
Nervous or clingy in new situations, easily loses confidence	☐	☐	☐
Kind to younger children	☐	☐	☐
Often lies or cheats	☐	☐	☐
Picked on or bullied by other children	☐	☐	☐
Often volunteers to help others (parents, teachers, other children)	☐	☐	☐
Thinks things out before acting	☐	☐	☐
Steals from home, school or elsewhere	☐	☐	☐
Gets on better with adults than with other children	☐	☐	☐
Many fears, easily scared	☐	☐	☐
Sees tasks through to the end, good attention span	☐	☐	☐

Do you have any other comments or concerns?

7.25 Appendix Y. Student-Teacher Relationship Questionnaire (Pianta, 2001)

STRS Student-Teacher Relationship Scale™ Response Form

Teacher's name _____ Gender: M F Ethnicity _____ Date ___/___/___

Child's name _____ Grade _____ Gender: M F Ethnicity _____ Age _____

Please reflect on the degree to which each of the following statements currently applies to your relationship with this child. Using the point scale below, CIRCLE the appropriate number for each item. If you need to change your answer, DO NOT ERASE! Make an X through the incorrect answer and circle the correct answer.

1 Definitely does not apply	2 Does not really apply	3 Neutral, not sure	4 Applies somewhat	5 Definitely applies

1. I share an affectionate, warm relationship with this child.	1	2	3	4	5
2. This child and I always seem to be struggling with each other.	1	2	3	4	5
3. If upset, this child will seek comfort from me.	1	2	3	4	5
4. This child is uncomfortable with physical affection or touch from me.	1	2	3	4	5
5. This child values his/her relationship with me.	1	2	3	4	5
6. This child appears hurt or embarrassed when I correct him/her.	1	2	3	4	5
7. When I praise this child, he/she beams with pride.	1	2	3	4	5
8. This child reacts strongly to separation from me.	1	2	3	4	5
9. This child spontaneously shares information about himself/herself.	1	2	3	4	5
10. This child is overly dependent on me.	1	2	3	4	5
11. This child easily becomes angry with me.	1	2	3	4	5
12. This child tries to please me.	1	2	3	4	5
13. This child feels that I treat him/her unfairly.	1	2	3	4	5
14. This child asks for my help when he/she really does not need help.	1	2	3	4	5
15. It is easy to be in tune with what this child is feeling.	1	2	3	4	5
16. This child sees me as a source of punishment and criticism.	1	2	3	4	5
17. This child expresses hurt or jealousy when I spend time with other children.	1	2	3	4	5
18. This child remains angry or is resistant after being disciplined.	1	2	3	4	5
19. When this child is misbehaving, he/she responds well to my look or tone of voice.	1	2	3	4	5
20. Dealing with this child drains my energy.	1	2	3	4	5
21. I've noticed this child copying my behavior or ways of doing things.	1	2	3	4	5
22. When this child is in a bad mood, I know we're in for a long and difficult day.	1	2	3	4	5
23. This child's feelings toward me can be unpredictable or can change suddenly.	1	2	3	4	5
24. Despite my best efforts, I'm uncomfortable with how this child and I get along.	1	2	3	4	5
25. This child whines or cries when he/she wants something from me.	1	2	3	4	5
26. This child is sneaky or manipulative with me.	1	2	3	4	5
27. This child openly shares his/her feelings and experiences with me.	1	2	3	4	5
28. My interactions with this child make me feel effective and confident.	1	2	3	4	5

7.26 Appendix AA. Strength and Weaknesses of Different Effect Sizes

Effect Size Analysis	Application	Potential Strengths	Potential Weaknesses
Percentage of Non-overlapping Data (PND; Scruggs, Mastropieri & Casto, 1987)	• Overlap method • Higher percentage: larger change	• Ease of use in analysis and interpretation • Accurate measure of overlap when data is stable	• Can be thrown off by outlier scores such baseline data points that have reached ceiling/floor levels – risk of type 2 errors. • Does not address trend • Cannot be used to calculate statistical significance or confidence intervals
Percentage of Data Exceeding the Medium (PEM) (Ma, 2006)	• Overlap method but relies on median score rather than a single outlier data point • Scores range from 0-1 (similar to an effect size)	• Easy to calculate, understand and interpret • Uses more data in its calculation in comparison to PND	• Not ideal if a baseline trend is present. • Lack of sensitivity regarding magnitude of treatment effect

Improvement Rate Difference (IRD) (R. I. Parker, Vannest, & Brown, 2009)	• Improvement rate of intervention minus • Improvement rate of baseline	• Uses more data in its calculation compared to PND and PEM and so considered more robust • Relatively easy to compute • Used within medical literature and is regarded as being reliable	• Does not address trend
Nonoverlap of all pairs (NAP) (R. I. Parker & Vannest, 2009)	• Pairwise comparison of all data	• More robust to idiosyncrasies in the data set and uses all of its data set • Relatively quick and straightforward to calculate – there is a shorthand calculation available	• Does not address trend • Does not always agree with visual analysis (Parker and Hagan-Burke, 2007)
Tau-U (R. I. Parker et al., 2011)	• A nonoverlap technique	• Adjusts for trend • Can manage smaller data sets • Correlates well with other indices • Can be calculated with an online calculator	• Lack of consistent terminology in its use • Cannot be represented visually on a graph
Sources used to inform the table: (Brossart et al., 2006; Ma, 2006; Manolov & Moeyaert, 2017; R. I. Parker & Vannest, 2009; R. I. Parker et al., 2009, 2011; Tarlow, 2017; Vannest & Ninci, 2015)			

7.27 Appendix BB. Interview Transcripts

Transcripts of interviews have been saved to the attached disc. They have been saved as the following:

CS1 – Interview with Theraplay Facilitator

CS1 – Interview with Teaching Assistant

CS2 – Interview with Theraplay Facilitator and Nursery Manager

CS2 – Interview with Theraplay Facilitator and KW for Roger

CS2 – Interview with KW for David

CS2 – Interview with KW for Nick

CS2 – Interview with KW for Richard

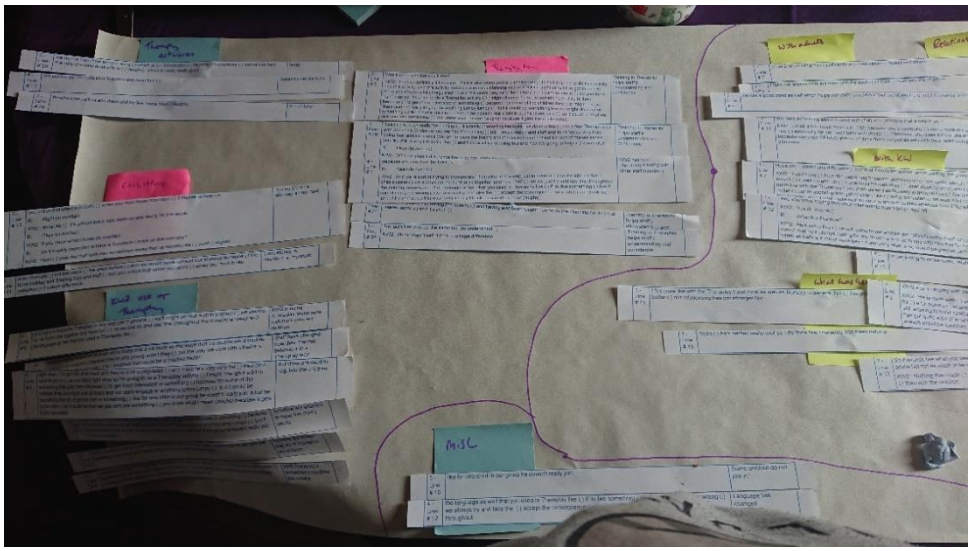
7.28 Appendix CC. Example of Sorting Codes into Themes

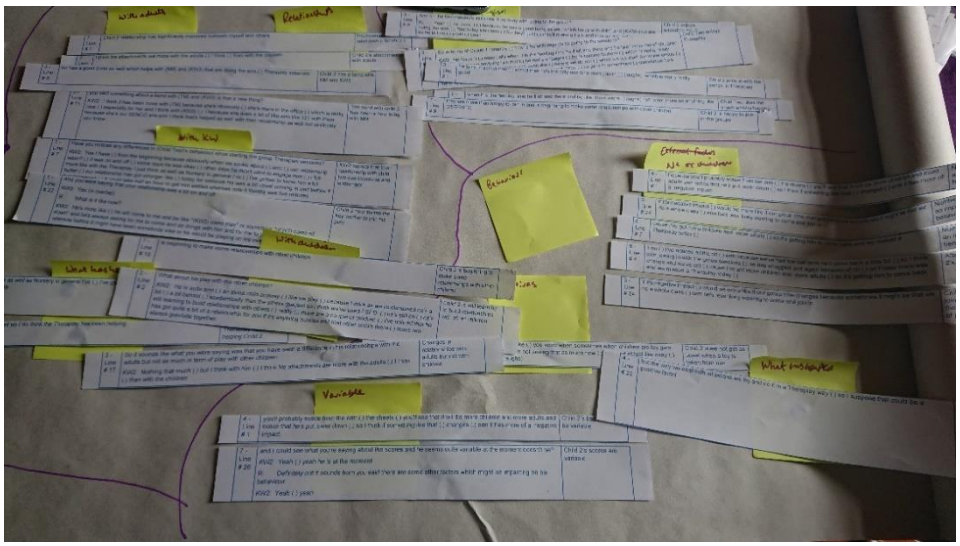
Example of Analysis for CS2 – Nick

Initial Personal Reflections from Interview

- KW for Nick is very enthusiastic about Theraplay
- Training appears to have helped understanding of approach
- Changes in relationship but less so with behaviour
- Similar to other interviews very difficult to pull apart what has led to the changes as Theraplay is used across the setting.
- Improvements after interview – from comments on questionnaire

Pictures of Codes Being Sorted into Themes:



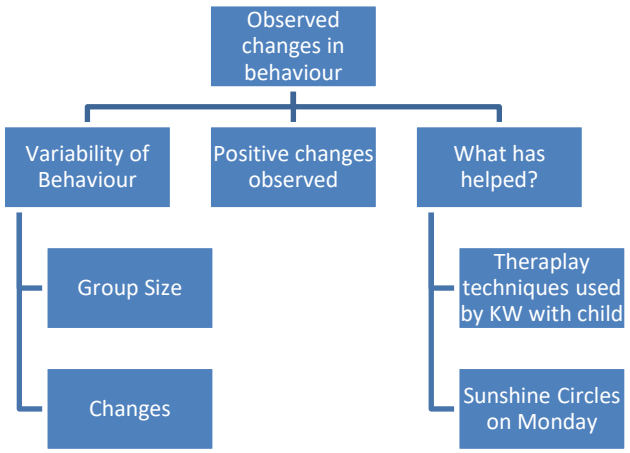


Grouping of Codes into Candidate and Sub Themes

Candidate theme: Relationships	
Closer to KW1	• KW2 reports that their relationship with child two has improved • Nick invites key worker to join his play
With adults	• Improvement in relationship for Nick • Nick has a bond with NM and KW3 • Nick's attachment is with adults
With children	• Nick is beginning to make some relationships with other children • Nick is still learning to build relationships with other children • Changes in relationships with adults but not with children
What has helped?	• Both Theraplay and nursery in general has helped supported KW2's relationship with Nick • KW2 reports that Theraplay has been helping Nick • Having SC on a Monday is important • Consistency in sessions is important
Candidate Theme: Behaviour	
Variable	• Nick's behaviour can be variable • Nick's scores are variable
Positives	• Nick does not get as upset when a toy is taken from him
Number of children	• Number of children has an impact on Nick's behaviour • Nick is less likely to join group activities if there is a large number of people • After the holidays Nick's behaviour changed •
What has helped?	• Changing how staff deal with situations in a Theraplay manner could be a positive factor on child's 2 behaviour
Candidate Theme: Enjoyment of Theraplay	
	• Nick enjoys attending the group Theraplay • Nick enjoys Theraplay • Nick joins in with the songs in Theraplay • Nick likes the snack activity/feeding • Nick is happy to join in
Candidate Theme: KW2 Use of Theraplay	
	• KW2 is using Theraplay techniques with their work with children • Staff have changed how they manage behaviour in a Theraplay way • Activities are used to regulate the children • Activities are adapted to meet the child's needs • Activities are chosen that are of interest to the children • Theraplay is embedded throughout the nursery

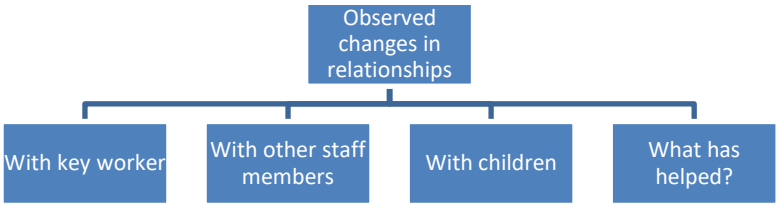
Theraplay Training	• KW2 has had Theraplay training with other staff members • Training in Theraplay helps staff's understanding and confidence
Candidate Theme: Misc	
	• Some children do not join in • Language has changed
Theraplay Activities	
	• Song
	• Sunshine Circle rules
	• Snack time

Sorting into themes and examples of data extracts



Themes	Data Extract	Source
Observed Changes in Behaviour		
Variability of Behaviour	you'll probably notice from the erm (.) the sheets (.) you'll see that it will be more children and more adults and notice that he's put lower down (.) so I think if something like that (.) changes (.) erm it has more of a negative impact	KW2 line 80
Changes	I've noticed a little bit (.) erm because we've had the half term he's gone back a little bit (.) so I think with joining in with the group sessions (.) he has struggled	KW2 line 141
Group Size	you'll probably notice from the erm (.) the sheets (.) you'll see that it will be more children and more adults and notice that he's put lower down (.) so I think if something like that (.) changes (.) erm it has more of a negative impact	KW2 line 80
Positive changes observed	So it's still early days (.) he erm (.) he doesn't like (.) you know when sometimes when children are toy gets taken off them they get really really upset (.) I'm not seeing that as much now (.) he's	KW2 line 35

	sort of just like okay (.) whatever I'll move on to something else (laughs)	
What has helped?		
Theraplay techniques used by KW with child	the way we deal with situations we try and do it in a Theraplay way (.) so I suppose that could be a positive factor	KW2 line 102
	we're sort of trying to incorporate Theraplay in any way just in general (.) so it might be that a child's upset (.) we always do 'no hurts stick together and have fun' (.) so we just try and use that throughout the nursery anyway and the language as well that you used in Theraplay	KW2 line 88
Sunshine Circles on Monday	KW2: erm we would have missed our Monday because of the Bank Holiday and Training Day and stuff (.) and you notice that when you don't (.) when you miss those mondays (.) it makes difference R: Right (in overlap) KW2: Because (.) it's almost like it sets them up and ready for the week.	KW2 line 148



Themes	Data Extract	Source
Observed changes in relationships		
With Key Worker	from the beginning because obviously when we spoke about (.) erm (.) our relationship wasn't (.) it was on and off (.) some days he was okay (.) other days he didn't want to engage erm (.) I felt more like with the Theraplay I just think as well as Nursery in general I've (.) I've gotten to know him a bit better (.) our relationship has got stronger like (.) today for instance his was a bit upset coming in and before if that happened (.) it could take half an hour to get him settled whereas now it literally was five minutes	KW2 line 3
	He's more like (.) he will come to me and be like "(KW2) come play" or something "(KW2) come sit down" and he's always asking for me to come and do things with him and for me to get involved with his play whereas before it might have been somebody else or he would be playing on his own	KW2 line 19
Observed changes with other staff members	Nick relationship has significantly improved between myself and others	From post intervention questionnaire

	you said something about a bond with (TM) and (KW3) is that a new thing? KW2: I think it has been more with (TM) because she's obviously (.) she's more in the office (.) which is really nice (.) especially for her	KW2 Line 63
With children	What about his play with the other children? KW2: He is quite erm (.) an alone child anyway (.) like we play (.) because I think as we've discussed he's a bit (.) a bit behind (.) academically than the others (pause) so I think we've used PSED (.) he's still on (.) he's still learning to build relationships with others (.) really (.) there are a couple of children (.) I've noticed that he has got quite a bit of a relationship for and if it's anything outside and that other child's there (.) those two always gravitate together. R: Okay (in overlap) KW2: So it's still early days	KW2 line 22
	is beginning to make some relationships with other children	From post-intervention questionnaire
What has helped?	Yeah (.) he's settled really well so I do think the Theraplay has been helping	KW2 line 12
	I felt more like with the Theraplay I just think as well as Nursery in general I've (.) I've gotten to know him a bit better	KW2 line 5

Themes not used:

- Theraplay activities
- Theraplay training
- Misc.

Examples of changes in the process:

- Combined KW2 use of Theraplay with what has helped
- Number of children changed to group size and added to variability of behaviour

7.29 Appendix DD. Theraplay Activities Completed in CS1

Activities completed in Theraplay sessions (taken form Theraplay Logs)

A description of the activities can be found on the attached CD labelled 'Theraplay Activities Description'

Date Week	Length (mins)	Welcome Song	Check-up time	Structure Activities	Nurture Activities	Challenge Activities	Engagement Activities	Snack and Drink	Goodbye Song
11/01/19 Week Seven	30	Sunshine Circle Song	Lotion, cotton wool check-ups	Bubble pop Balloon Bag Bop	Check-up Measure	Balloon Bag Bop – keep it up Tooty Ta song	Check-ups Measure	Crunchy vs sweet	✓
18/01/2019 Week Eight	25	Sunshine Circle Song	Measure – length of muscles/smiles Lotion, cotton wool check-ups	Bubble Pop Balloon Bag Bop Feather Blow	Check-up Handprints	Cushion balance Balloon Bop-keep it up in the air	Feather blow Measuring – muscles Check up	Crunchy vs soft snacks	✓

25/01/2019 Week Nine	25	You are my sunshine	Measure – length of smiles/big-tall Lotion, cotton wool check-ups	Red/green stop and go	Feather match in pairs	Straight Face Challenge	Snow ball fight	Sweet vs savoury	✓
1/02/2019 Week 10	30	Sunshine Circle Song	Lotion, cotton wool check-ups	Hot potato (regulated and dysregulated)	Check ups Blanket Hug	Cotton wool hide Hot potato Dr. Tangle Body noises	Dr. Tangle Check ups Tooty Ta song	✓	✓
8/2/2019 Week 11	30	Sunshine Circle Song	Measure – length of muscles/smiles Cotton wool Lotion Feelings faces	Newspaper punch Bubble burst	Check ups Hug under blanket	Paper tennis	Snowball fight Car wash	Chewy vs crunchy sweets	✓

15/02/2019 Week 12	20	Sunshine Circle Song	Lotion/talcum powder/cotton wool Feather painting	Ball pass in a line Tooty Ta	Lotion dab pass Check ups	Cushion Balance La La Magnets	Car Wash La La Magnets	Crunchy vs soft	✓

Aim of sessions and Facilitator's reflections of sessions from CS1 taken from Theraplay Logs (pseudonyms used)

Date	Length (mins)	Aim of the Session	Facilitator's Reflections
11/01/19 Week Seven	30	Engagement, nurture, structure and then challenge activities	• No funny walk in or out of sessions due to children already being seated • All class staff members were present • Children presented as being interested and engaged. Some were a bit cautious and wary – asking what are we doing and who are you? • Not all children accepted the check-in activities such as the lotion or cotton wool
18.01.2019 Week Eight	25	More engagement and nurture activities	• Brian followed Malcolm if not wanting to join in and copying his actions

25.01.2019 Week Nine	25	More engagement, nurture and challenge activities (structure is okay)	• The children enjoyed matching feathers and putting them in each other's hair, although Malcolm was a bit reluctant with this activity • Children enjoyed doing the silly faces – laughter and giggles, lots of fun • Malcolm needed reassurance • Angus accepted challenge of trying an activity
1.02.2019 Week 10	30	Challenge and engagement activities	• Children needed nurture • All children bit excitable today – required lots of regulating and standing up and sitting down games. • Enjoyed Tooty Ta sing • Happy though • Malcolm not keen on snack and Brian followed • Angus dipping in and out of activities • Children enjoyed blanket hug
8.02.2019 Week 11	30	Focus on engagement activities	• Malcolm needed reassurance • Angus began to show more engagement even when seated away
15.02.2019	20	Nurture, engagement and structure activities. Less pressure on challenge	• Difficult session • Adults with a child so only Facilitator leading the session • 3 children ended up in circle and Angus joined in from a distance • Children found it hard with adults elsewhere

7.30 Appendix EE. CS1 - RQ1 Supporting Data Extracts

Theme: Context		
Subtheme	Data Extract	Source
Setting	with it being a specialist school	TF 266
	I think it would look very different it you hadn't worked in that sort of setting I think (.) you'd think 'oh you know this is not working (.) I've got a child over there and ones there and they're not engaging and stuff' but erm (pause) so it would look very different to a mainstream group I'd say	TF 74
	it is a nurture environment	TA 190
Needs of the children	for some of the children that kind of missed out on comfort and emotional and social things at home	TA 194
	they can't always manage to be close to other children and they might just need their own space	TF 94
	we just couldn't pinpoint anything for his behaviour and it's still not changed	TA 257

Themes and Subthemes for Context of Theraplay Intervention for CS1

Theme: Pragmatics		
Subtheme	Data Extract	Source
Number and Frequency of sessions	it would have been six I think we have done now (.)	TF 11
	it was always morning	TA 113
	I think [TF] did a couple of sessions where we was a bit about three quarters an hour (.) and I think that was because they were engaged and the time was just passing by so quickly	TA 116
	once a week	TA 106
Role of Adults	Sometimes I had quite a few adults and children and at other times there were children and adults in other places and they were there when ready to (.) yeah but they were still in the room and you could still include them by going over to them so	TF 69
	But [Class Teacher] he was mostly kind of supporting some of the children that didn't really want to join in with the sunshine circles	TA 17
Setup of the room	we put chairs in the circle (.) some of the activities we moved so that the chairs were away so that we was playing with balloons and measuring each other	TA 59

Themes and Subthemes for Pragmatics of Theraplay Intervention for CS1

Theme: Activities		
Subtheme	Data Extract	Source
Activities	they liked the balloons (.) and erm they liked that TF did erm a game where they hid under a blanket	TA 67
	car wash (.) was one they requested and the hugging one they really liked	TF 201
	Erm (long pause) the physical games they tend to like (.) you know (.) the exciting games really (laughs)	TF 208
Activities Adapted to Meet Children's Presentation and Needs	because you can plan and think 'oh yeah that went really well we'll need to do that that next week' but actually for whatever reason they weren't ready for that or they were different on the day	TF 55
	also you could plan to do some activities ((laughs)) but because of the way they were presenting that day it kind of went out the window and you had to put more upbeat or more you know calming or regulating activities in	TF 48
	for some it was important I think that they repeated the activities (.) so whether that was about feeling safe or not or that they just enjoyed them I'm not sure	TF 44

Themes and Subthemes for Activities within the Theraplay Intervention for CS1

Theme: Supporting Behaviour within the Sessions		
Subtheme	Data Extract	Source
Regulation	[TF] she has got a way bringing bringing them back down you know from (.) they're right up here and she got this knack of bringing them back to	TA 82
	they went a bit more with the Theraplay sunshine circles way of using the activities to help them calm down so	TF 191
Inclusion	she didn't leave them out (.) she would go to them (.) with some of the things that we were doing so she kind of didn't leave them out but joined in from a distance with them	TA 25
	she'll try and encourage them saying different things to them about how they are feeling "I can see you are not feeling very well at the moment but if you want to join us you can" and she's always (.) she never leaves them out	TA 169

Themes and Subthemes for Supporting Behaviour within Theraplay Sessions for CS1

Theme: Factors that Facilitated the Theraplay Intervention		
Subtheme	Data Extract	Source
Length of involvement	it's been quite a positive group because it's been you know quite a long time of running it … so you can actually I suppose get in to it a bit more then you would if you knew you only had like four or five sessions and knowing I can carry on as well	TF 15
Small child to adult ratios	taking care and nurturing so many children whereas for us it is easier maybe because we only have six or eight in a group	TF 99
Theraplay Facilitator	I think the children do get a lot out of it if you have got the right person doing it [TF] was brilliant … no awkward silences or anything she just kept everything going	TA 231
	I think it's also useful for the staff to have someone who is a little bit skilled	TF 238
	I think because people know me and know what I do I think they are quite accepting of me going in there	TF 264
The school setting	some of our staff know about you know trauma and attachment and things …it does make you wonder that if (.) if people employed you and they weren't aware of that whether it would work or not really (.) so I think you all have to think the same way really	TF 276
	but I sometimes think it might be different in mainstream because they cannot always accommodate you (.) like give you the time or the room (.)	TF 272

CS1 -Themes and subthemes for Factors that Facilitated the Theraplay Intervention

Theme: Barriers/Challenges to the Theraplay Intervention		
Subtheme	Data Extract	Source
Staff Presence within the sessions	the only times it has been difficult I think has been when has been like when the teachers the class teachers have had to go off (.) the children found that quite difficult	TF line 23
	it was important to keep the staff the same	TF line 29
Changes to staff structure	Will you be writing up that there have been staffing changes and its been all a bit you know? because I think that's interesting too	TF line 303
Time to feedback to staff	I think time for feeding back and helping people to understand is more challenging	TF line 136

CS1 - Themes and Subthemes for the Barriers and Challenges to Implementing the Theraplay Intervention

7.31 Appendix FF. CS1 RQ2 and RQ3 Supporting Data Extracts

Theme: Outcomes within the sessions		
Subtheme	Data Extract	Source
Outcomes for the staff	it gives them opportunity for them to see the children in a bit of a different way through a sunshine group because they're having to work quite closely together	TF 174
	I think they find it very helpful for them as well they can almost have a break from teaching … and engage in something that's fun and seeing the children	TF 133
Children's experiences	they tend they liked the balloon (.) they liked the balloons (.) and erm they liked that TF did erm a game where they hid under a blanket	TA 67
	I think they enjoyed whatever was on offer really	TF 211
Behaviour	you can approach him with it more now during the sunshine circle sessions and he will have a little go	TF 160
	sometimes Malcolm he was unsettled probably during the morning and he would not join in but that wasn't every session	TA 22
	and it was at a time that the children knew it was coming and so they kind of began to anticipate and when you came they were like 'oh yeah'	TF 223

CS1 -Themes and Subthemes for Outcomes within the Session

Theme: Outcomes outside of sessions		
Subtheme	Data Extract	Source
No observed changes in student-teacher relationship	R: … have you noticed any differences between the children's relationships with staff members? TA: Not really (.) no (.) because I think we have a good relationship with them anyway	TA 221
	R: … did you notice any differences in their relationships with the staff members? TF: Erm (long pause) I think they are quite close to them anyway (.) erm (.) I think when there's been opportunities to talk about or did you notice you know certain things happening maybe (.) erm maybe its made them be able to reflect a little bit more on those (.) you know what they observe in the children (.) I think their relationships are good anyway because it's a nurture group maybe	TF 167
Behaviour	we have seen him playing with some children as well (.) playing a game of doctors and things	TF 158
	R: Have you noticed any differences in the children play since the sunshine circles? TA: It's been much the same (.) much the same (.)	TA 264

CS1 Themes and subthemes for Outcomes Outside of Sessions

Theme: Perceptions of the group	
Data Extract	Source
been quite a positive group	TF line 15
I definitely think it is a valuable thing for children to take part in	TF line 224
Yeah just give it a go and yeah because I think I think the children do get a lot out of it	TA line 231

CS1 - Themes and Subthemes for Perceptions of the Group

7.32 Appendix GG. Theraplay Activities Completed in CS2

Activities completed in Theraplay sessions (taken form Theraplay Logs)

Date	Length (mins)	Aim	Funny Walk	Welcome Song	Check-up time	Structure Activities	Nurture Activities	Challenge Activities	Engagement Activities	Snack and Drink	Goodbye Song	Funny walk out
27.3.19	15	Introduce group and adults Build children's self esteem	Train/ Monkeys	You are my sunshine	Cotton wool				Go Bananas Hot potato	Wotsit crunch	✓	Monkeys
1.4.19			✓	✓	Cream/ cotton wool					✓	✓	Monkeys
No sheet provided												
No sheet provided												
8.5.19	20	Work together as a group	Train	✓	✓			Hand stack	Head shoulder knees and toes	✓	✓	Train
22..05.19	20		✓	✓	✓		✓	✓	✓	✓	✓	✓

7.33 Appendix HH. CS2 - Supporting Data Extracts for RQ1

CS2 - Themes and Subthemes for Implementation of Theraplay Intervention

Context		
Themes	Data Extract	Source
Setting	whilst I was on maternity leave the whole of the team restructured so a lot of them have only been here for (.) I don't think any of them bar KW1 have been here for a year	NM 401
Theraplay Training	staff have had two Twilight sessions of training with TM and a full day group training	NM 235
	R: have you noticed the difference in the staff since they've had that Theraplay training? N: A massive difference (.) there has been a massive positive difference in their confidence and using it(.) how much they are using it (.) they are doing it without thinking now (.) using the terms and vocabulary (.) erm working with children on a one-to-one using Theraplay techniques whereas previously they wouldn't have had the confidence to do so in using the Theraplay techniques (.) they are now working with parents their understanding of attachment and the importance of working with parents as well has changed	NM 254
Theraplay Use in the Nursery	we use the Theraplay techniques not just within the intervention across the whole nursery	NM 206
	when we talk about a nursery visions with staff we talked about Theraplay and how its embedded in our practice and this is our vision and this is our ethos erm (.) you have to be onboard to work here you have to be on board with the Theraplay principles	NM 367
	so Theraplay techniques we embed across the whole of the nursery and the sort of rules of sunshine circles… is embedded across the whole setting	NM 209
	in addition to our play Sunshine circles which are on a Monday that all children do	NM 15
Pragmatics		
Needs of the children in the group	the Wednesday interventions have been carefully selected children who we feel would benefit from additional Theraplay (.) erm they perhaps be children who lacks self-confidence self-esteem children who need (.) erm social (pause) work on their social skills (.) and children who (.) erm (.) maybe more vulnerable children	NM 16

Set-up of group	I definitely think a consistent venue has helped because there's less exciting things to look around and get distracted by	NM 47
	we would do a rough structure of what we would like to	NM 109
	it was a joint effort (.) which was really nice. She supports me quite a lot in the sunshine circles because she's got a lot of the training as well which is good	KW 72
Number/Frequency	it's once a week on a Wednesday (.) erm morning and afternoon	NM 6
Group size and dynamics	we've got two different groups we've got our two year olds and three year olds (.) erm we decided that we would separate the children rather than having a combined bigger group we would have two smaller groups because we felt that (.) erm we could be more specific to the needs of those children	NM 7
	we had to think about dynamics and to consider what (Theraplay Manager) would call wizzy busy children we wouldn't want a full group of wizzy busy children similarly we wouldn't pick a whole group of children who were quite lethargic and downbeat and needs up regulating a lot we have tried to balance the two	NM 148
Activities		
Theraplay Dimensions	we would again do an activity based on what children needed at the time so using one of the four dimensions to identify what they may need	NM 351
	if we feel the group of children need engagement activities we would do a lot of work on engagement	NM 145
Regulation	so erm for Sunshine circles, it's about regulation (.) child regulation itself (.) so going up and then bring them back down	KW 80
	we do Theraplay techniques to help regulate children	NM 214
Activities adapted	with the Theraplay it doesn't always go to plan for example if we notice that children are belly laughing if they are giggling if they are really involved and excited we wouldn't just stop them and move on to the next activity we would extend it (.) similarly if we find that they are disengaging with a particular activity we would move that on and (.) have a think of something else	NM 113
Touch	doing slippery slip on their hands and obviously that is quite a lot of contact then so as the groups has	NM 338

	gone on the physical contact (.) safe physical contact (.) has increased as well	
Structure	the fact that they feel safe because it's a structured routine	NM 200
	they've got the structure and when you talk about your Theraplay dimensions (.) they know the structure of the Sunshine Circle … and I think it helps with their confidence because (.) they know what to expect	NM 34
	they're different cus the way they're structured with the sunshine circles it (.) it's just better structured than doing other groups with them I think Sunshine circles works (.) a lot better	KW3 45

CS2 - Themes and Subthemes for Facilitating Factors

Sub-Themes	Data Extract	Source
Smaller Groups	it's smaller it's more focused so we specify activities based on what we feel would meet the children's needs definitely the nurture aspect with the smaller group because you can spend more time with the children erm (.) and really get to know what they like and to plan around them as well (.) we plan the sessions around a smaller group so it's easier to make it unique	NM 143 NM 294
Consistency	but being consistent and having it every week has really really helped the children I definitely think a consistent venue has helped activity for the children we would keep that for the following week and then introduce a new one so they've got a consistent game as well so they are not just (.) overwhelmed by new activities	NM 62 NM 47 NM 106
Nursery Manager	I love doing it (.) I am a real advocate for Theraplay I feel that it works the children have to like coming into nursery (.) they have to like their key adult and you can't just assume that children will like their key adult erm (.) so the opportunities for children to be silly with the adult to see the adult be silly as well (.) the children find it hilarious as well to know that their special key person can be silly can be fun (.) it really helps that bond but at the same time look after them meet their needs erm (pause) and to provide something exciting for them as well to know that these key adults are providing education that is exciting for me	NM 358 NM 301

Two Facilitators	we decided we definitely needed two members of staff due to their children's needs but also I quite often I get pulled out due to my role within the nursery I get pulled due to various meetings for children (.) various family meetings (.) I might have to be pulled to the floor or pulled into the school so at least KW3's there and can be there and be that consistent person for them	NM 68
	Yeah it was a joint effort (.) which was really nice. She supports me quite a lot in the sunshine circles because she's got a lot of the training as well which is good	KW 72

CS2 - Themes and Subthemes for Challenges and Barriers

Subthemes	Data Extract	Source
Collecting Children for the Group Theraplay	I think one of the challenges by doing our planning every week (.) one thing that we have noticed when gathering the children in we have tried trains but sometimes we lose children along the way because we're having to try and gather quite a large group of children in the setting and then we quite often get other children trying to join our circle and we erm (.) and it is quite heart-breaking to have to turn them away	NM line 122
Staff Availability	we decided we definitely needed two members of staff due to their children's needs but also I quite often I get pulled out due to my role within the nursery me getting pulled out is a factor (.) bless KW3 has had to fly solo with it I think the nature of my job and what I do sometimes things inevitably come up erm (.) and I do need to make sure that I am prioritising the group because ultimately these are our most vulnerable children	NM line 68 NM line 388
Children's Attendance	a challenge that we have is that erm (pause) because nursery attendance is not compulsory (.) erm attendance in Nursery is not always great so they don't always complete the full sessions that they need	NM line 27

7.34 Appendix II. CS2 - Supporting Data Extracts for RQ2 and RQ3

Themes	Data Extract	Source
Impact of Context	Theraplay is very much embedded (.) so it will be interesting to see if the intervention alone that had such a positive impact or or just the Theraplay in general	NM 225
	R: so Sunshine circles a bit different to the group Theraplay or is it the same?	KW3 145
	KW3: Pretty much the same really yeah (.) yeah (.) they're just different (.) we just do different activities.	
Outcomes observed within the group		
Positive Changes observed	I think most of them now are willing to participate and to try it (.) when we first started there would be children who were very reluctant to even join in (.) they would be sort of solemn (.) they would be sitting down (.) face down (.) erm (.) very reluctant to join in the songs feeding wouldn't participate in feeding at the end of the session and now almost all of them will join in but join in willingly	NM 82
	their body language is very notable that they seem more relaxed	NM 91
	some of the children that were quite quiet and in themselves (.) are now a lot more confident within themselves (.) they're working better in groups (.) erm and they're answering questions a lot more as well instead of just sitting quiet like	KW3 90
Variability in presentation	Yes so sort of family circumstances quite often happen so we've had one particular child who has had to move out of his family home (.) so lots of different circumstances (.) it really varies week by week what we get and how they present themselves	NM 195
	It's still very early days we're only on our 4th session	NM 103
	there has been an increasing confidence for all children I still think there is a long way to go	NM 189
Outcomes observed outside of the group		
Behaviour	we have seen an increase in confidence and some of their talking (.) for one particular child a 2-year-old his vocabulary has increased and his talking he's on the special needs register and one of his targets was to increase his vocabulary (pause) their self-confidence definitely	NM 171
	key workers have reported that a group time she has been a lot better in the listening and attention aspect	NM 180 NM 275

Relationships with adults in the nursery	children who we have had the sunshine circle intervention for (.) definitely I have formed a better relationship with them and they are coming up to me a lot more confidence wise to tell me about their day or if they need a bit of nurture Theraplay as an intervention has helped the children to understand the positive role of the adult … Erm (.) check-ups because of the Theraplay intervention because of the smaller group	NM 283

7.35 Appendix JJ. CS2 - Supporting Data Extracts for David

RQ2 Themes and Subthemes, with Data Extracts for David

Observed Changes in Behaviour		
Themes	Data Extract	Source
Variability of Behaviour	R: the scores seems very up and down KW1: They are R: Why do you think that might be? KW1: The only other thing I can think about is generally it seems to be like end of the week (.) he's more evasive of the group times (.) so it could be that he's tired	KW1 104
	the behaviour shifts are to do with that transition between mum's house and dad's house	KW1 26
Positive changes	Less tantrums	written on questionnaire
	Since 13th May Child One has begun his transition to the older group in the next room of the nursery. He has managed this transition surprisingly well	KW1 comments to researcher on last day of data collection
Difficulties	I'm finding that he is pushing boundaries (.) he is also looking for boundaries to push (.)	KW1 17
	he's not really (.) erm (.) joining in at group times …He's refusing in some se some sessions	KW1 19
External Factors		
Family Circumstances	I don't know whether there's links between (.) so mum and dad live in separate homes now (.)	KW1 22
	It's almost as if (.) he's like (.) right (.) well (.) homes changed (.) are you gonna change? So I'm going push it (.) I'm gonna challenge everything that you do which is usually normal (.) but I'm going to challenge it just to see if (.) you're different (.) that's how I feel (.) that what I think he's doing because there is that additional challenging and tread across the boundaries	KW1 61
Techniques used by KW with child		
Theraplay techniques	when he's not joining in erm and we'll have like a race and we'll turn it into a bit of a game and he likes the ladybird cushions (.) so erm (.) I'll go "oh there's one more left oh whose gonna get there first is it gonna be me is it gonna be you" and erm (.) that sort of challenge factor will make him go and it sort of made me reflect on one of the dimensions of Theraplay	KW1 33

	so I just gave him lots of nurture	KW1 123
Interpreting Child's Behaviour	his play often resembles his emotions and how he is feeling erm and when he's playing with like connection toys he is often talking about home (.) the disconnect and reconnect (.) he's doing with the toys while talking about home (.)	KW1 46
	we are always interpreting and asking him are you feeling this way	KW1 127

RQ3 - Themes and Subthemes, with Data Extracts for David

Observed Changes in Relationships		
Themes	Data Extract	Source
Reported to be closer to KW	I think it was last Theraplay (.) I keep saying that he's being closer to me (.) but he was actually sitting on me (.) and I thought that was quite significant (.) I'm not sure like if anything happened over the weekend or anything (.) but (.) he usually sits next to me (.) but (.) he chose to sit on me at this day (.) so I just gave him lots of nurture I think he has become sort of more closer to me (.) erm (.) he comes in for a cuddle now (.) he seeks me out (.) he comes (.) when he's feeling stressed he'll come to me or a grown up for support -	KW1 119 KW1 6
Observed changes with other staff members	so I would say a lot more accepting (.) of (.) nurture (.) cuddles. r: Okay (.) so not just (.) not just yourself? KW1: Yeah not just myself	KW1 90
What has helped?	I think like em sunshine circles and theraplay have helped that because that (.) that message of I'm here to take care of you (.) I think that's really going through to him and he's understanding that like she's here to take care of me (.) so I'm going to go to her so it's just whether he recognises he's at that point where he feels like he needs help I feel like there's been sort of like an established understanding that we're here to take care of him (.) we're not like (.) there for (.) stopping him from doing things that wants to do (.) he is sort of now understanding that we're here to take care of him	KW1 11 KW1 85

7.36 Appendix KK. CS2 Supporting Data Extracts for Nick

RQ2 -Themes and Subthemes, with Data Extracts for Nick

Observed Changes in Behaviour		
Themes	Data Extract	Source
Variability of Behaviour		
Group Size	from the erm (.) the sheets (.) you'll see that it will be more children and more adults and notice that he's put lower down (.) so I think if something like that (.) changes (.) erm it has more of a negative impact	KW2 80
Changes	I've noticed a little bit (.) erm because we've had the half term he's gone back a little bit (.) so I think with joining in with the group sessions (.) he has struggled	KW2 141
Positive changes observed		
	you know when sometimes when children a toy gets taken off them they get really really upset (.) I'm not seeing that as much now (.) he's sort of just like okay (.) whatever I'll move on to something else (laughs)	KW2 35
What has helped?		
Theraplay techniques used by KW with child	the way we deal with situations we try and do it in a Theraplay way (.) so I suppose that could be a positive factor	KW2 102
	we're sort of trying to incorporate Theraplay in any way just in general (.) so it might be that a child's upset (.) we always do 'no hurts stick together and have fun' (.) so we just try and use that throughout the nursery anyway and the language as well that you used in Theraplay	KW2 88
Sunshine Circles on Monday	you notice that when you don't (.) when you miss those mondays(.) it makes difference…Because (.) it's almost like it sets them up and ready for the week.	KW2 148

RQ3 – Themes and Subthemes, with Data Extract for Nick

Observed changes in relationships		
Themes	Data Extract	Source
With Key Worker	I felt more like with the Theraplay I just think as well as Nursery in general I've (.) I've gotten to know him a bit better (.) our relationship has got stronger like	KW2 5
	he will come to me and be like "(KW) come play" or something "(KW) come sit down" and he's always asking for me to come and do things with him and for me to get involved with his play whereas before it might have been somebody else or he would be playing on his own	KW2 19
Observed changes with other staff members	relationship has significantly improved between myself and others	From post intervention questionnaire
	I think it has been more with (NM) because she's obviously (.) she's more in the office (.) which is really nice (.) especially for her	KW2 65
With children	He is quite erm (.) an alone child anyway (.) like we play (.) because I think as we've discussed he's a bit (.) a bit behind (.) academically than the others (pause) so I think we've used PSED (.) he's still on (.) he's still learning to build relationships with others	KW2 27
	beginning to make some relationships with other children	From questionnaire
What has helped?	Yeah (.) he's settled really well so I do think the Theraplay has been helping	KW2 12
	felt more like with the Theraplay I just think as well as Nursery in general I've (.) I've gotten to know him a bit better	KW2 5

7.37 Appendix LL. CS2 Supporting Data Extracts for Roger

RQ2 – Themes and Subthemes, with Data Extracts for Roger

Observed Changes in Behaviour		
Themes	Data Extract	Source
Positive Changes	now we're seeing a lot of (.) positive behaviour from him (.) so he (.) erm (.) will ask before he does something (.) so if he wants a toy talk he will say "mine please" or he'll take it and look at them and if they go to cry he'll sort of give them it back he knows	KW3 5
	mum says at home as well (.) his (.) his behaviour has improved a lot	KW3 9
	he's playing a lot better alongside the children (.) which is really good.	KW3 136
	R: the target behaviour that you picked was playing appropriately with others (.) how do you feel he is doing with that? KW3: I feel like he's doing really well … it was the end of last week (.) erm he started beginning to take toys again and I'll says to him (Child Three) you need to remember we have no hurts we stick together and we have fun and he was "okay" (laughs) "okay" he says and then um he went off to play but it's just reminding him really (.) but he has improved massively	KW3 155
	before he didn't really want to sit (.) he would be up (.) away (.) whereas now we will sit and he will join in with all the activities and he will sit for the whole sunshine circles instead of getting up (.) and then coming back.	KW3 151
	he's sort of playing alongside others and joining in with the groups (.) which is good	KW3 140
What has helped?		
Family Circumstances	she's been doing a bit of sunshine circles with him at home (.) so (.) no hurts stick together have fun (.) mum's been doing that at home with him and she said his behaviour has improved quite a bit.	KW3 l11
	but Mum says no everything has stayed the same and she says I think it's just following through things with Roger she says (.) I think it's helped him.	KW3 104

Techniques used by KW with child	I feel myself giving a lot of nurture all the time now and a lot of touch (.) yeah (.) and give them a lot of positive erm (pause) positive comments for them (.)	KW3 173
	Yeah in nursery that's what we do with the children (.) we sort of use that as discipline (.) if a child gave another child a shove we'll say 'oh we have no hurts we stick together and we have fun' (.) that's sort of how we (.) sort of discipline them	KW3 167

RQ3- Themes and Subthemes, with Data Extracts for Roger

Observed Changes in Relationships		
Themes	Data Extract	Source
Observed Changes in Relationships		
Staff Members	he's building better relationships with other members of staff as well (.) which is really good	KW3 121
	KW3: … he's been going to KW1 as well if he wants things (.) R: Oh really (in overlap) KW3: Which is great (.) because before it was a lot of (.) me (.) he was just coming to me (.)	KW3 130
Relationship with KW	R: has there been any difference in his relationship with yourself since the start of the group? KW3: Yeah (.) we have em (.) I've noticed in the morning … he comes and he stands with big smile on his face and I'll say "morning (child three)" and he will go off and play which is really nice (.) because if I don't say morning he won't go off and play (.) he will stand waiting until I've said something to him (.) which is lovely (laughs)	KW3 107
What has helped?	I feel myself giving a lot of nurture all the time now and a lot of touch (.) yeah (.) and give them a lot of positive erm (pause) positive comments for them (.) R: Okay (.) and does that make a difference? KW3: Erm (.) yeah I think it does because a lots of the children around (pause) I don't know (.) I think I've got quite a good relationship with the children and I think that could be maybe part of why as well.	KW3 173

7.38 Appendix MM. CS2 Supporting Data Extracts for Richard

RQ2 - Themes and Subthemes, with Data Extracts for Richard

Observed Changes in Behaviour		
Themes	Data Extract	Source
Talking	He has now started talking a lot more which is really good	KW4 3
	he's talking to children and and he is joining in	KW4 l88
Behaviour	he is joining in more (.) he's playing more (.) which is really good	KW4 22
	think he wants more attentions (.) which is nice (.)	KW4 50
	he would have stopped and wouldn't of played (.) so he's come on (.) I think he's come on loads by doing like little bits	KW4 64
Within Theraplay Groups	when we do (.) our like (.) my Theraplay group during the session (.) he is now letting me rub his hands … and he has now let me now like touch him (.) which is really good and he's speaking more in group as well	KW4 4
External Factors		
Health	just the health issues (.) he's got the eczema (.) he's recently (.) they think he's allergic to latex (.) erm he's got hayfever so I think its a lot for him really	KW4 115
	are there any other factors that might have impacted on his behaviour? KW4: No (.) I don't think so (.) I just think its his health (.) because he's been at hospital quite a lot	KW4 24
	then he's off for a couple of days (.) for a few days and then he's like kind of (.) back to the beginning again	KW4 9
Theraplay Training	think I'm more vigilant with the children and like I can see like sometimes you can see what what they're going to do	KW4 108

RQ3 - Themes and Subthemes, with Data Extracts for Richard

Observed changes in relationships		
Themes	Data Extract	Source
Inviting Key Worker to join his play	I think it's better (.) It's a lot better because he goes (.) he's now when he's out in the garden he always goes "(KW4) (KW4) (KW4) look look look KW4 KW4 KW4 KW4"	KW4 39
Talking	it's really nice to know that he can feel like he can talk to me and come to me and build that relationship with me	KW4 77
	so if he'd see me coming he'd clam up and then speaking polish knowing I couldn't speak it (.) so I didn't understand what he was saying (.) but now he is speaking a lot more and more in English (.) but he's also letting me (.) when he is talking in Polish (.) I have the iPad (.) so I can record him and I speak to (staff members) and they translate for me	KW4 54
External Factors	think it's just the connection and knowing that he can build the relationship again with me because before Christmas we did have a really nice relationship (.) it was really good (.) we could talk and everything but then obviously something happened just before Christmas (.) I don't know if it's because he was in hospital or he was poorly and then it kind of went (.) but it's now coming back which is really good	KW4 68

7.39 Appendix NN. Inter-Rater Reliability Calculations

Example of SPSS Output for Intra-Reliability Check (Kappa) for TB1 in CS1 - Angus

Crosstabs

Notes

Output Created		10-APR-2019 13:04:36
Comments		
Input	Active Dataset	DataSet3
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	105
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=Firstrating BY Secondrating /FORMAT=AVALUE TABLES /STATISTICS=KAPPA /CELLS=COUNT EXPECTED /COUNT ROUND CELL.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.01
	Dimensions Requested	2
	Cells Available	524245

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Firstrating * Secondrating	105	100.0%	0	0.0%	105	100.0%

Firstrating * Secondrating Crosstabulation

			Secondrating			
			On his own	Not on his own	Out	Total
Firstrating	On his own	Count	63	0	4	67
		Expected Count	40.8	8.9	17.2	67.0
	Not on his own	Count	0	13	0	13
		Expected Count	7.9	1.7	3.3	13.0
	Out	Count	1	1	23	25
		Expected Count	15.2	3.3	6.4	25.0
Total		Count	64	14	27	105
		Expected Count	64.0	14.0	27.0	105.0

Symmetric Measures

		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Measure of Agreement	Kappa	.893	.042	12.026	.000
N of Valid Cases		105			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Example of SPSS Output for Inter-reliability Checks (Intra-Class Correlation Coefficient) for Richard in CS2

Reliability

Notes

Output Created		30-MAY-2019 19:44:27
Comments		
Input	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	2
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=KWrating Researcherrating /SCALE('ALL VARIABLES') ALL /MODEL=ALPHA /STATISTICS=DESCRIPTIVE SCALE CORR /SUMMARY=MEANS /ICC=MODEL(MIXED) TYPE(ABSOLUTE) CIN=95 TESTVAL=0.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.00

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	2	100.0
	Excluded[a]	0	.0
	Total	2	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.988	1.000	2

Item Statistics

	Mean	Std. Deviation	N
KWrating	20.0000	28.28427	2
Researcherrating	25.0000	35.35534	2

Inter-Item Correlation Matrix

	KWrating	Researcherrating
KWrating	1.000	1.000
Researcherrating	1.000	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	22.500	20.000	25.000	5.000	1.250	12.500	2

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
45.0000	4050.000	63.63961	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound	F Test with True Value 0 Value	df1	df2	Sig
Single Measures	.976[a]	.355	1.000	81.000	1	1	.070
Average Measures	.988[c]	.524	1.000	81.000	1	1	.070

Two-way mixed effects model where people effects are random and measures effects are fixed.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

c. This estimate is computed assuming the interaction effect is absent, because it is not estimable otherwise.

7.40 Appendix 00. Examples of TAU-U Analysis

Analysis completed using calculator from: Vannest, K.J., Parker, R.I., Gonen, O., & Adiguzel, T. (2016). Single Case Research: web based calculators for SCR analysis. (Version 2.0) [Web-based application]. College Station, TX: Texas A&M University. Available from singlecaseresearch.org

Tau-U Output Example – CS2, Richard

id	Label	S	PAIRS	TAU	TAUb	VARs	SD	SDtau	Z	P Value	CI 85%	CI 90%
trend:												
0	A vs A	4	15	0.2667	0.2963	28.3333	5.3229	0.3549	0.7515	0.4524	-0.244<>0.	-0.317<>0.850
1	B vs B	6	21	0.2857	0.3077	44.3333	6.6583	0.3171	0.9011	0.3675	-0.171<>0.	-0.236<>0.807
phase:												
2	A vs B	8	42	0.1905	0.2	196	14	0.3333	0.5714	0.5677	-0.290<>0.670	
corrected baseline:												
-	-	-	-	-	-	-	-	-	-	-	-	-
combined:												
-	-	-	-	-	-	-	-	-	-	-	-	-
Label	Tau	Var-Tau	Z	P-Value	CI 85%	CI 90%	CI 95%					
-	-	-	-	-	-	-	-					

Tau-U Output Example – CS2, Roger

id	Label	S	PAIRS	TAU	TAUb	VARs	SD	SDtau	Z	P Value	CI 85%	CI 90%
trend:												
0	A vs A	0	6	0	0	8.6667	2.9439	0.4907	0	1	-0.707<>0.	-0.807<>0.807
1	B vs B	6	78	0.0769	0.0822	268.6667	16.3911	0.2101	0.3661	0.7143	-0.226<>0.	-0.269<>0.423
phase:												
2	A vs B	32	52	0.6154	0.6667	312	17.6635	0.3397	1.8116	0.07	0.126<>1	0.057<>1

Tau-U Ouput Example – CS1, Brian – TB1

id	Label	S	PAIRS	TAU	TAUb	VARs	SD	SDtau	Z	P Value	CI 85%	CI 90%
trend:												
0	A vs A	-5	10	-0.5	-0.5263	16.6667	4.0825	0.4082	-1.2247	0.2207	-1<>0.088	-1<>0.172
1	B vs B	0	10	0	0	16.6667	4.0825	0.4082	0	1	-0.588<>0.	-0.672<>0.672
phase:												
2	A vs B	19	25	0.76	0.76	91.6667	9.5743	0.383	1.9845	0.0472	0.209<>1	0.130<>1

7.41 Appendix PP. Instructions for Inter-Rater Reliability Judgements for SCED Graphs

Instructions:

- Enclosed are graphs and a summary table of the visual analysis for eleven target behaviours (all names are pseudonyms)
- Please have a look at both the graph and summary table for each target behaviour and then indicate your level of agreement on the rating scale provided with regards to the following question:

How certain or convinced are you that the child's behaviour improved between the baseline and intervention phase?

Please note that depending on the type of behaviour, increase and decrease in scores may represent improvement and therefore this difference has been highlighted on the rating scale.

Many thanks for your time and support

Inter-Rater Recording Sheet -Please tick which rating you agree with for each target behaviour.

Angus

TB1 – REDUCTION IN SCORES INDICATES IMPROVEMENT

1: Not at all convinced	2: Not convinced	3: It is possible	4: Convinced	5: Very Convinced
X				

TB2 – INCREASE IN SCORES INDICATES IMPROVEMENT

1: Not at all convinced	2: Not convinced	3: It is possible	4: Convinced	5: Very Convinced
		X		

Malcolm

TB1 – INCREASE IN SCORES INDICATES IMPROVEMENT

1: Not at all convinced	2: Not convinced	3: It is possible	4: Convinced	5: Very Convinced
			X	

TB2 – REDUCTION IN SCORES INDICATES IMPROVEMENT

1: Not at all convinced	2: Not convinced	3: It is possible	4: Convinced	5: Very Convinced
	X			

Brian

TB1 – INCREASE IN SCORES INDICATES IMPROVEMENT

1: Not at all convinced	2: Not convinced	3: It is possible	4: Convinced	5: Very Convinced
			X	

TB2 – INCREASE IN SCORES INDICATES IMPROVEMENT

1: Not at all convinced	2: Not convinced	3: It is possible	4: Convinced	5: Very Convinced
			X	

David

TB1 – INCREASE IN SCORES INDICATES IMPROVEMENT

1: Not at all convinced	2: Not convinced	3: It is possible	4: Convinced	5: Very Convinced
	X			

TB2 – INCREASE IN SCORES INDICATES IMPROVEMENT

1: Not at all convinced	2: Not convinced	3: It is possible	4: Convinced	5: Very Convinced
	X			

Nick

TB1 – INCREASE IN SCORES INDICATES IMPROVEMENT

1: Not at all convinced	2: Not convinced	3: It is possible	4: Convinced	5: Very Convinced
	X			

Roger

TB1 – INCREASE IN SCORES INDICATES IMPROVEMENT

1: Not at all convinced	2: Not convinced	3: It is possible	4: Convinced	5: Very Convinced
			X	

Richard

TB1 – INCREASE IN SCORES INDICATES IMPROVEMENT

1: Not at all convinced	2: Not convinced	3: It is possible	4: Convinced	5: Very Convinced
		X		

7.42 Appendix QQ. SPSS Output for Inter-Rater Reliability Agreements for SCED Graphs

Weighted Kappa

Weighted Kappa

Weighting	Kappa	Asymptotic Standard Error	Z	P Value	Lower 95% Asymptotic CI Bound	Upper 95% Asymptotic CI Bound
Linear	.776	.116	3.772	.000	.548	1.003

Judge1 vs. Judge2