‘Me and My Mates’: Development and Evaluation of an Emotional and Social Competence Programme for Pre-Primary Children

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Declaration

This thesis contains no material that has been accepted for the award of any other degree in any other university and, to the best of my knowledge or belief, contains no material previously published or written by another person, except when due reference is made in the text.

Yajna Coci

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Abstract

A well-accepted finding from past research is that children from low socio-economic status (SES) suburbs have a higher proportion of emotional and social competence problems that later manifest into psychopathology and social maladjustment than children from high SES suburbs. This thesis reports the development, trial and evaluation of a classroom-based emotional and social competence programme, ‘Me and My Mates’ for pre-primary-aged Western Australian children from low SES suburbs. It was hypothesised that children who participated in Me and My Mates would show significantly greater increases in emotional and social competence, as well as lower rates of emotional and behavioural problems, than children who did not participate.

A primary concern in developing the Me and My Mates programme was to identify crucial emotional and social competencies that constituted accepted emotional and social competence in pre-primary children. The identified competencies were: understanding emotions in self, emotional expressivity, emotional knowledge, emotional regulation, attribution of intent, empathy, sympathy, increased prosocial behaviour and minimal aggressive behaviour.

A pilot trial was undertaken and changes were made to the programme in light of the results. A second trial consisted of an experimental evaluation of the modified version. Four schools consented to participate in both trials, with one government and one private school in each of the experimental and control conditions. In Trial One, 110 child assessments, teacher questionnaires and parent questionnaires were completed at pre-intervention, post-intervention and three-month follow-up. In Trial Two, 68 child assessments were completed at pre-intervention, post-intervention and three-month follow-up.
Results from the child assessments in both trials indicated that emotional knowledge, sympathy, empathy and prosocial behaviour were significantly higher in children who participated in the programme at post-intervention and three-month follow-up compared to children in the control group, whereas hostile attribution of intent and aggression were significantly lower. Teacher and parent findings were also supportive of increases in children’s emotional and social competence and partially supportive of lower rates of emotional and behavioural problems in children.

When assessed at three-month follow-up, 80% of the children in Trial One and 91% of the children in Trial Two used the emotional regulation techniques taught in the programme. Effect sizes were generally moderate to high, and were larger in Trial Two for most competencies.

The findings were similar to those described in previously published reports of programme evaluations in pre-primary children, supporting findings that classroom-based programmes can enhance and sustain emotional and social competence in five-year-old children. Extending on previous findings, empirical support was also provided for the enhancement of competencies that have previously not been measured including important social functions such as sympathy, empathy and lower hostile attribution of intent.

The goal of future research will be to investigate whether longer term positive outcomes for children who completed the Me and My Mates programme continue in their primary school years.
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Chapter 1: Overview

My clinical work with children presenting with psychopathology and social maladjustment from low socioeconomic status (SES) suburbs led me to the broad questions of whether the emotional and social trajectories of children from such suburbs could be enhanced through what they were taught at school and how this could be achieved most effectively.

Chapter 2 reviews the literature on emotional and social competence. A first consideration was to assess whether schools in low SES suburbs were in fact suitable forums for increasing children’s emotional and social competence. Section 2.1 of the literature review addresses this issue, develops a rationale for programmes in schools in low SES suburbs and describes the development of my whole-of-class emotional and social competence programme, ‘Me and My Mates’.

For emotional and social competencies to be taught at school, the pertinent competencies that underlie the broad constructs of emotional and social competence and the relationships between these competencies needed to be identified. Research on those competencies and their interrelationships is presented in section 2.2.

Section 2.3 comprises a review of the literature addressing other key questions: How do the identified emotional and social competencies naturally develop? If emotional and social competencies are going to be targeted at schools, what student age range is developmentally appropriate? What are the benefits of enhancing the natural progression of emotional and social competence? What are the costs if emotional and social competencies are not enhanced?

Section 2.4 continues to develop a rationale for a selective programme in schools in low SES suburbs and for the development of my whole-of-class emotional and social competence programme by examining some existing peer-reviewed whole-
of-class programmes with the same aims as Me and My Mates. An argument was made that the development of an emotional and social competence programme would be beneficial for pre-primary school Western Australian children from low SES suburbs. In Western Australia, all children are required to commence pre-primary school if they turn five-years-old before 30 June in any one year.

Chapter Three outlines the specific development of my emotional and social competence programme, Me and My Mates. Research evidence on effective teaching methods of increasing emotional and social competence in the proposed age group is reviewed.

Chapter Four describes Trial One of the programme as piloted in pre-primary schools in low SES suburbs. Section 4.1 reviews appropriate evaluation methods and measures. An argument is made for using direct child assessments rather than relying on only adult ratings. The development of a scale for teacher and parent reports is described. Section 4.2 describes post-intervention and three-month follow-ups using direct child assessments, and teacher and parent reports.

Chapter Five describes how changes were made to the Me and My Mates programme in light of the results from Trial One. Section 5.2 presents outcome data from Trial Two. Section 5.3 compares results from Trial Two to those in Trial One.

Chapter Six compares results from both trials with other more comparable programmes reported in the research literature and proposes directions for further developments and evaluations that evolved from the work reported here.

The thesis contributes to the growing field of emotional and social competence programmes for pre-primary school aged children from low SES suburbs and is relevant to the direct application of broader areas of educational, developmental, clinical and school psychology.
Chapter 2: Literature Review on Emotional and Social Competence

2.1 Whole-of-Class Intervention in Western Australian Pre-primary Schools in Low Socioeconomic Status Suburbs

2.1.1 Selective intervention in schools in low socioeconomic status suburbs.

In low socioeconomic status (SES) suburbs, compared to high SES suburbs, there are demonstrated greater risks of emotional and social competence problems in childhood and of later manifestation of psychopathology and social maladjustment (Cole & Hall, 2008; Schaeffer, Petras, Ialongo, Poduska & Kellam, 2003). Recent research in Western Australia has reported that 30% to 35% of pre-primary children from low SES suburbs have deficits in the areas of emotional maturity and social competence (Australian Early Development Index [AEDI], 2008). Globally, between 10% and 20% of pre-primary children have moderate to clinically significant levels of emotional and behavioural problems (Boyd, Kostanski, Gullone, Ollendick & Shek, 2000; Kaiser et al., 2000; Lavigne, Gibbons, Christoffel & Arend, 1996; Stanley, 2002), and only approximately five per cent of these children receive psychosocial intervention (Stanley, 2002). Thus, while low SES does not determine poor emotional and social competence, children living in low SES suburbs have been reported to be more susceptible to long-term negative emotional and social outcomes (Bradley & Corwyn, 2002; Huffman, Mehlinger & Kerivan, 2001; Keenan, Shaw, Walsh, Delliquadri & Giovannelli, 1997).

Over the last two decades there has been an increased proportion of refugee children in Western Australian low SES suburbs. Between 1996 and 2006 in Western Australia people born in Sudan had the largest average increase in overseas born residents (27% per year), followed by persons born in Afghanistan (13%) and Iraq (10%) (Australian Bureau of Statistics [ABS], 2006). In addition, ABS (2006) reported that Western Australia had the highest proportion of overseas born residents (29%)
compared to other states in Australia. Western Australian refugee children often face problems during settlement that are worse than those faced by voluntary migrants. Additional problems children may encounter include experiencing severe trauma, having non-English speaking parents, facing longer cultural specific adjustments, meeting more racial discrimination and marginalisation (Allotey, 1998). Emotional and social competence may be hindered by factors such as trauma (Bornivalova, Daughters & Lejuez, 2010; De Monchey, 1991) and poor verbal skills (De Monchey, 1991; Lent, Petrovic, Swanson & Olson, 2009; Macfie & Swan, 2009). Consideration of these problems suggests that it would be beneficial for refugee children in low SES suburbs to have extra support in the enhancement of emotional and social competence by planned psychosocial interventions.

Three approaches to delivering interventions have been outlined in the prevention framework of the United States Institute of Medicine (Institute of Medicine, 1994). Selective interventions often target children at risk of certain psychological problems. Universal interventions are delivered as preventative programmes to an entire population group. Indicated interventions are those delivered to individuals identified with mild to moderate symptoms of a mental disorder (Mrazek & Haggerty, 1994).

Based on the findings of the AEDI, which identified deficits in emotional maturity and social competence in children from low SES suburbs, and those of the ABS, which demonstrated a high proportion of refugee children in low SES suburbs, it is appropriate to develop intervention programmes targeting these deficits in children as selective interventions in schools in low SES Western Australian suburbs.

**2.1.2 Universal whole-of-class interventions.** There are research-based benefits of delivering emotional and social competence programmes to an entire classroom. These include outcomes in which emotional and social competence are enhanced in all
children regardless of behaviour problems and the need for screening as possible stigmatisation through labelling is avoided and peer support and modelling can occur (Evans, 1999; Greenberg, Domitrovitch & Bumbarger, 2001; Institute of Medicine, 1994; Lowry-Webster, Barrett & Dadd, 2001; Offord, 2000).

The programme developed as part of this research was titled Me and My Mates in order to reflect the importance of emotional and social development in ‘self’, (hence ‘me’,) and that ‘others’, (hence ‘my mates’) are also essential to that emotional and social development. Clinically, it is an intuitively appealing approach to intervene with only ‘at risk’ children. However, all children from schools in low SES suburbs are not ‘at risk’ of the development of psychopathology and social maladjustment and, given that it is through the relationships with others that emotional and social competence develops, children who have higher emotional and social competence are powerful when influencing their peers who have lower emotional and social competence.

Therefore, the My Mates component was chosen to highlight the importance of including the whole classroom in the programme, and not solely children identified ‘at risk’. Additionally, Me and My Mates is a common Australian colloquial term and is a reflection of the programme’s heritage.

2.1.3 Pre-primary school age. Schools are ideal settings for the delivery of mental health promotion and early intervention strategies. The majority of pre-primary aged children attend school and, therefore, such delivery is cost-effective to society (Bodrova & Leong, 2006; Noam & Hermann, 2002). In addition, schools also can provide a safe, nurturing environment for the enhancement of socially acceptable emotional and social competence (Bodrova & Leong, 2006; Noam & Hermann, 2002).

Socialisation refers to a process in which individuals acquire beliefs, values and behaviours considered desirable or appropriate by the people with whom they interact.
(Feldman, Masalha & Derdikman-Eiron, 2010). It is a process through which behaviour is taught and regulated (Izard, 1993). When children commence pre-primary schooling, their emotional and social competence is modelled, shaped and reinforced by peers and teachers (Bandura, 1986). Therefore, in schools emotional and social learning can occur in a natural context comprised of similar aged peers, adults and a forum where rules are set and governed.

Research results support the idea that pre-primary aged children have deficits in emotional maturity and social competence (AEDI, 2008; Boyd et al., 2000; Lavigne et al., 1996; Stanley, 2002). A study in Western Australia reported that pre-primary school teachers wanted a greater focus on emotional and social competence in schools (Cross, Hamilton, Roberts & Hall, 2004). Informal discussions with experienced pre-primary school teachers working in low SES suburbs in Western Australia were undertaken prior to the commencement of the present study. Those experienced pre-primary school teachers placed high importance on focusing on children’s emotional and social development in school. They emphasised that children with low emotional and social competence tend to have problems controlling anger, are bullies or victims of bullying, have friendship problems and disrupt classrooms. The teachers supported the need for an emotional and social competence programme for whole-of-class participation over one school term and suggested that such a programme would be very beneficial in the pre-primary year, as they considered it more difficult to influence behaviour as children age.

Once children reach adolescence, entrenched behavioural problems are often difficult to overcome (Beck & Alford, 2009; Cole & Hall, 2008; Merry, McDowell, Hetrick, Bir & Muller, 2003; Seligman, Reivich, Jaycox & Gillham, 1995; Young, Klosko & Weishaar, 2003). In addition, behavioural problems represent higher
economic and social costs to the community and to health systems (Vos, Corry, Haby, Carter & Andrews, 2005). Various studies have concluded that one-on-one psychological treatment or group therapy for persistent adolescent and later adult psychopathology or social maladjustment are not as cost-efficient as universal intervention programmes in the early school years (Cortina et al., 2008; Craigie, Saulsman & Lampard, 2007; McCrone et al., 2005).

In support of early intervention, prosocial interaction between pre-primary school children has been found to be a significant predictor of later mental health and wellbeing (Denham et al., 2003; Eisenberg et al., 1999; Walsh et al., 2006). Additionally, emotional and social competence interventions with five year olds have been found to be more likely than older child or adult interventions to prevent the later development of psychopathology and social maladjustment (Cole & Hall, 2008; Hazell, 2007; Tolan & Dodge, 2005).

In addition to preventing psychosocial problems later in life, emotional and social competence programmes targeted at younger age-groups may assist with building resilience to a range of adversities in which children are commonly exposed, such as divorce, abuse, neglect, bullying and unstable home environments (Asawa, Hansen & Flood, 2008; Collishaw et al., 2007; Degarmo & Forgatch, 2005). Early intervention programmes that target emotional and social competence have the potential to increase positive outcomes for young children by creating resilience (Goldstein & Brooks, 2005). Improving emotional and social competence in pre-primary school-aged children from low SES suburbs when they are only five years old can potentially create a foundation for secure and healthy development.
The following sections further develop the argument that the pre-primary stage is an ideal period to provide programmes for enhancing children’s emotional and social competence.

### 2.2 Specific Competencies That Constitute Emotional and Social Competence

To accelerate the development of emotional and social competence in pre-primary school-aged children, it is imperative to have an understanding of the competencies that constitute emotional and social competence and the relationships those competencies have with each other. This section will articulate the competencies that comprise emotional and social competence.

Emotions have been defined as having four components (Shaffer, 2005):

1. **Feelings** (positive or negative)
2. **Physiological correlates** (for example, changes in heart rate and galvanic skin response)
3. **Cognitions** (that elicit or accompany feelings and physiological changes)
4. **Goals** (to access pleasant stimuli, avoid negative stimuli and influence pathways of behaviour)

Those four components are part of the construct ‘emotional competence’. In an attempt to demystify the core aspects of emotional competence, Denham et al. (2003) reviewed various definitions and, based on Rose-Krasnor’s (1997) prism model, adapted the following operational definition. On that basis, emotional competence is defined as having three competencies (Denham 2006; Denham et al., 2003) comprising:

- **Competent emotional expressivity** (frequent expression of more positive emotions and relatively infrequent displays of negative emotions)
- **Competent emotional knowledge** (the ability to correctly identify other people’s emotions and the variables that influence those emotions)
- Competent emotional regulation (the ability to modulate one’s experience and expression of emotional arousal to an appropriate level of intensity to successfully achieve one’s goals)

While the above operational definition of the competencies within emotional competence is frequently cited, it does not include the competency of understanding one’s own emotions. Rose-Krasnor’s (1997) prism model defined emotional and social competence in terms of a child’s developmental needs. On the bottom of that model are an individual’s socio-emotional understanding and goals, in the middle are interpersonal and intrapersonal goals, and at the top are children’s interactions with others. Denham’s (2006) definition of emotional competence does not fully encapsulate children’s understanding of their own emotions, as expressed in Rose-Krasnor’s (1997) prism model. Understanding one’s own emotions can be viewed as a competency that is part of emotional competence or as a competency that precedes the development of emotional competence.

Researchers have begun to directly assess young children’s emotional competence. However, as it is difficult to measure pre-primary school-aged children’s understanding of their own emotions, the literature on that aspect of competence is scarce. One study demonstrated that a precursor to the development of children’s emotional competence is children comprehending their own emotions (Dunn & Hughes, 1998). Specifically, this comprehension constitutes components such as identifying and accurately labelling emotions, stating feelings and body sensations with each emotion experienced and describing thoughts that trigger certain emotions (Dunn & Hughes, 1998).

In the Dunn and Hughes (1998) study, 55 children aged four to five years were assessed for understanding of emotions in self and for emotional knowledge. A
standardised interview was used to assess children’s ratings of their understanding of their own emotions and of others’ emotions and reliability by two coders, was high (Dunn & Hughes, 1998). Children who scored higher in understanding their own emotions scored significantly higher in understanding others’ emotions. Additionally, when assessed one year later, those children who previously scored higher in understanding others’ emotions had significantly higher scores in emotional knowledge compared to those who previously scored lower in understanding others’ emotions. A limitation of their research was that order-effects were not taken into account, as children were always assessed first on understanding emotions in self, then in others. However, given that understanding emotions in self was associated with children’s emotional knowledge one year later, this result suggests that once children have grasped the concept of understanding their own emotions, they are more likely to continue to develop a higher level of emotional knowledge. Although further research in the area of young children’s understanding of their own emotions is warranted, the results of the Dunn and Hughes (1998) study do support the contention that learning to understand emotions in self is an important competency in pre-primary school-aged children.

Five-year-old children who have a good understanding of their own emotions display high levels of emotional and social competence, for example emotional knowledge and prosocial behaviour (Dunn, Cutting & Fisher, 2002; Dunn & Hughes, 1998; Mathieson & Banerjee, 2010). Children who have poor understanding of their own emotions experience problems, such as emotional outbursts, behavioural problems and poor social interactions within home and school environments (Kidwell et al., 2010). Developmentally, the pre-primary age is a period when children are learning about primary emotions, so it is a suitable age group to enhance children’s understanding of their emotions. Further, the understanding of one’s emotions enhances
the development of emotional and social competencies. Researchers have reported a positive relationship between understanding emotions in self and mental health outcomes for children and adults (Cole & Hall, 2008; Denham et al., 2003; Eisenberg et al., 1999; Hazell, 2007; Tolan & Dodge, 2005; Walsh et al., 2006).

It has also been suggested that achieving each of the three components of emotional competence, as articulated by Denham (2006), is crucial to children’s social competence (Rubin, Bukowski & Parker, 1998). Social competence has been broadly defined as the ability to achieve personal goals in social interactions while continuing to maintain positive relationships with others (Guralnick, 1990; Rubin et al., 1998).

The relationship between the three components of emotional competence and social competence was assessed in a longitudinal study of 143 three to four-year-old children (Denham et al., 2003). Emotional expressivity was assessed using 24 five-minute observations to count the frequency of expressions of positive and negative emotions of each child during free play with peers in a classroom. Emotional knowledge was measured using Denham’s (1986) puppet task that required children to identify the emotion a puppet would experience in eight situations. Emotional regulation was examined by coping items, developed by Eisenberg, Fabes, Nyman, Bernzweig and Pinuelas (1994), assessing mothers’ reports of the frequency of their child’s regulatory lapses on a seven point scale about when their children were confronted with emotionally arousing situations. In addition, emotional regulation was assessed based on dysregulated behaviours (for example, happy when focal is sad) during the aforementioned observations.

The results showed that, at age three to four, emotional expressivity predicted emotional knowledge and emotional regulation. Denham et al. (2003) concluded that children who expressed predominantly positive emotions in play with peers were more
knowledgeable about emotions and better at regulating emotions than those who expressed less positive emotions. Initially, only ‘emotional regulation’ predicted three to four-year-old children’s social competence, with children high in emotional regulation being rated more socially competent by teachers and more likable by peers. However, one year later, both high emotional expressivity and emotional knowledge became predictors of social competence, with emotional regulation playing more a secondary role. Taken together, these results indicate that emotional expressivity learned in early childhood is associated with the development of emotional knowledge, emotional regulation and social competence over time.

Social competence was measured in the Denham et al. (2003) study by using teacher reports of children’s cooperativeness and peer assessment of their likeability. Likeability is arguably not a skill, perhaps not even a by-product of being socially competent; however, the attributes and behaviours that make some children more likeable than others could be a consequence of a set of competencies. Cooperativeness, for example, can be viewed as part of a skill set that incorporates prosocial behaviour, and likeability has been found to be positively related to prosocial behaviour (Kuppens, Greitens, Onghena & Michiels, 2009). Prosocial behaviour can be defined as any action that benefits other people (Eisenberg, Eggum & Edwards, 2010) including sharing with someone less fortunate than oneself, comforting someone in distress, helping someone achieve an objective or making others feel good by complimenting them on their appearance or accomplishments. Children who display high levels of prosocial behaviour are viewed as socially competent (Eisenberg et al., 2010).

In contrast, behaving aggressively may be referred to as being less socially competent (Ladd & Susan, 1996). High levels of peer aggression in children have been reported to be associated with deficits and biases in social cognition and social
information processing (Burks, Laird, Dodge, Pettit & Bates, 1999; Crain, Finch & Foster, 2005; Dodge & Pettit, 2003). The earlier definition of social competence as an individual’s ability to achieve personal goals in social interactions while continuing to maintain positive relationships with others (Guralnick, 1990; Rubin et al., 1998) does not clearly articulate the set of competencies that makes an individual socially competent. Arguably, social competence involves more than social and problem-solving behaviours. Social information processing models (e.g., Dodge, 1985; Dodge & Crick, 1990; Dodge & Price, 1994; Dodge, Pettit, McClaskey & Brown, 1986; Slaby & Guerra, 1988) elucidate the central importance of social cognitions as components of social competence. Social cognitions delineate a child’s ability to understand social situations and to interpret them accurately (Guralnick, 1990). Moreover, social cognition includes diverse interpersonal domains, such as an individual’s knowledge, perception, and attitudes in relation to social situations (Bennett, Farrington & Huesmann, 2005). Social information processing models theorise the social-cognitive and affective processes that occur immediately before a behaviour is enacted, such as how differences in aggression arise among individuals (e.g., Crick & Dodge, 1994; Dodge, 2006).

Social information processing models describe an incremental process of emotional and social development largely shaped by experience. Focusing on social information processing models may help identify the important competencies that constitute social competence. In terms of describing social information processing in children, Crick and Dodge’s (1994) multi-step model has received broad empirical support (see Yoon, Hughes, Gaur & Thompson, 1999, for a review) and forms the theoretical basis for some emotional and social competence programmes for children (e.g., Conduct Problems Prevention Research Group, 1992). Dodge’s (1986) original
social information processing (SIP) model of children’s social adjustment proposed six processing steps: encoding, representation, response search, response decision, enactment and behavioural response. Crick and Dodge (1994) reformulated Dodge’s (1986) SIP model to take into consideration conceptual and empirical advances in developmental and clinical psychology and modified each step accordingly. Crick and Dodge’s (1994) reformulated SIP model asserts that a child’s behavioural response to a problematic social stimulus is a function of six steps of processing:

1. **Encoding of social cues** (competent emotional knowledge can lead to accurate encoding of other’s emotional signals)
2. **Interpretation of social cues** (hostile attribution of intent; empathy and sympathy)
3. **Goal clarification**
4. **Response access**
5. **Response decision**
6. **Behavioural enactment** (prosocial behaviour; aggressive behaviour)

Additionally, they argue that skilful processing at each step leads to competent performance within a situation, whereas biased or deficient processing is hypothesised to lead to deviant social behaviour, such as interpersonal aggression (Crick & Dodge, 1996).

Recently, many researchers have argued that Crick and Dodge’s (1994) SIP model is incomplete without the consideration of emotional competence (Denham et al., 2002; Izard, 2001; Izard, Fine, Mostow, Trentacosta & Campbell, 2002; Lemerise & Arsenio, 2000). Many theorists and researchers advocate that emotional knowledge is fundamental to children successfully achieving social competence (Bandura, 1986; Denham, 2007; Denham et al., 2003; Dunn, Cutting & Fisher, 2002; Hobson, 1993;
Hubbard, 2001; Izard, 2001). Dodge, Laird, Lochman, Zelli, and Conduct Problems Prevention Research Group (2002) assessed the relationship between emotional knowledge and SIP in 387 children in kindergarten to grade three in the United States. Children’s emotional knowledge was measured using the Emotion Recognition Questionnaire (Ribordy, Camras, Stefani & Spaccarelli, 1988) and SIP patterns measured by using hypothetical pictorial vignettes. Confirmatory factor analyses supported the conclusion that emotional knowledge was a predictor of SIP.

A study in England also reported that emotional knowledge is positively associated with social competence. The relationship between emotional knowledge and social competence was investigated in 128 five-year-old children in schools in south London (Dunn et al., 2002). Children’s understanding of others’ emotions was assessed using Denham’s (1986) puppet task. Social competence was measured by pairing children for video-recorded observations with friends. Children’s friends were identified by parents, teachers and researcher observations. Howes and Phillipsen’s (1992) observational criteria was used, which stated that a ‘friend’ was a child who played in close proximity, engaged in social play and shared positive affect for more than 30% of playtime together. Children who scored higher in emotional knowledge had more observed prosocial interactions and less aggressive behaviour with peers than children who scored lower, and they were rated as being more prosocial in peer interaction by their teachers. It should be noted that in the Dunn et al. (2002) study, children did not identify the friends with whom they were paired and there was no comparison group of interactions with children identified as ‘not friends’. Nevertheless, the results show that prosocial interactions and minimal aggression are important components of social competence and that they have a positive relationship with emotional knowledge.
The relationship between emotional knowledge and prosocial interactions was investigated with younger children. A recent study of 28 three-year-old children in Sussex, England examined the relationship between emotional knowledge, using Denham’s (1986) puppet task, and prosocial behaviour, using parent and practitioner ratings on Goodman’s (1997) Strengths and Difficulties Questionnaire (Mathieson & Banerjee, 2010). Although the sample was small, the researchers concluded that children’s emotional knowledge predicted peer prosocial behaviour. Indeed, behaving prosocially with peers has been considered by many researchers as an important factor in social competence (Dunn et al., 2002; Mathieson & Banerjee, 2010), if not its defining feature (Ladd & Susan, 1996). Although components that comprise emotional competence influence social competence, the processes that do occur do not necessarily occur serially, but rather in parallel. This suggests that there is a feedback process and that emotional and social competencies are best taught as a single competence in planned psychosocial programmes.

In order to articulate other competencies that constitute social competence, each step of Crick and Dodge’s (1994) SIP model will be examined. Steps one and two of that model are characterised by the encoding and interpretation of social cues. Crick and Dodge (1996) proposed that children selectively attend to certain situational and internal cues, encode those cues, and then interpret them. Interpretation may consist of one or more independent processes, including causal attributions, intent attributions, and other interpretative processes such as evaluation of goal attainment, evaluation of past performance and self-evaluation (Crick & Dodge, 1996).

Children’s interpretations of social cues have been examined by assessing attribution of intent, that is, whether the child perceives the intentions of another child as deliberate or accidental (Crick & Dodge, 1996). The relationship between attribution
of intent and behaviour was assessed in 60 children diagnosed with conduct problems and compared to 60 children who were classified as ‘typically developing’ (Webster-Stratton & Lindsay, 1999). The children were aged between four and seven years old. Attribution of intent was measured by using Dodge and Newman’s (1981) interview measure that consisted of each child being presented with four hypothetical scenarios and two alternative causal explanations, one attributing an aggressive intent and the other characterising the situation as accidental. The child was asked to choose between the two alternatives. Prosocial and aggressive responses were examined by using the WALLY game (Webster-Stratton, 1990) in which children are required to solve problems in 12 hypothetical situations. Three coders classified children’s video-recorded responses into either prosocial or aggressive responses. Using the Peer Problem-Solving-Interaction Communication-Affect Rating Coding System (Webster-Stratton, King, Hollinsworth & Rogers, 1991), 25 minute dyadic observations between each child and one of their chosen best friends playing a game were scored by two observers. Results showed that children with conduct problems were more likely to interpret social cues as deliberate and were more likely to choose aggressive responses, whereas typically developing children were more likely to interpret such cues as accidental and were more likely to choose prosocial responses (Webster-Stratton & Lindsay, 1999). Additionally, children with a hostile attribution of intent bias exhibited more aggressive problem-solving strategies when playing with peers. The results were consistent with studies that have reported that older children with conduct problems displayed hostile attributions in ambiguous situations, compared to typically developing children (Kendall, 1993; Yoon et al., 1999).

The research reviewed has demonstrated relationships between important emotional and social functions. Interpretations of such empirical research have
suggested that an emotional and social competence programme should target children’s emotional knowledge to enable them to accurately understand others’ emotions. In turn this could, theoretically, influence the accuracy of children’s interpretations of social situations. In addition, teaching children to give others the ‘benefit of the doubt’ in conflict situations, when warranted, may lead to decreases in their negative appraisals.

Lower negative appraisals and higher positive appraisals are associated with higher levels of empathy and sympathy that, in turn, influence prosocial behaviour (Chalmers & Townsend, 1990; Eisenberg & Fabes, 1990; 1998). Empathy is defined as the ability to experience vicariously the same or similar cognitions and emotions that another individual is experiencing (Eisenberg & Fabes, 1998). Sympathy is defined as the ability to compassionately understand and support the experience of another individual (Eisenberg et al., 1994). As sympathy stems primarily from empathy, it is difficult to differentiate these two constructs during research. Empathy and sympathy are both important competencies in influencing prosocial behaviour.

The relationships between children’s social understanding (attribution of intent and emotional knowledge), empathy and prosocial behaviour were investigated in 136 children with a mean age of 6.3 years (Findlay, Girardi & Coplan, 2006). Their mothers completed the Child Empathy Scale (Eisenberg et al., 1998), Child Social Preference Scale (Coplan, Prakash, O’Neil & Armer 2004) and Preschool Behaviour Questionnaire (Behar & Stringfield, 1974). The children were administered an adapted version of the Interview Attributions for Aggressive and Withdrawn Behaviour (Goossens, Bokhorst, Bruinsma & van Boxtel, 2004; Graham & Hoehn, 1995) in order to assess children’s attributions in hypothetical peer situations. According to mothers’ ratings, children with higher levels of empathy scored higher in prosocial behaviour, compared to children with lower levels of empathy. Children who self-reported high levels of social
understanding scored higher in mothers’ ratings of empathy, compared to those with low empathy scores. Although it is unclear if the manner in which children respond in hypothetical peer situations is the same as how children would respond in real life situations, Findlay et al.’s (2006) study demonstrates positive associations between benign attributions of intent, emotional knowledge, empathy and prosocial behaviour.

Research with older children also supports the idea that emotional knowledge and emotional regulation facilitate greater expression of empathy (Eisenberg et al., 1993). A recent study assessed the relationships between empathy, aggression and psychopathology in 224 children with an average age of 10.81 years (van Baardewijk, Stegge, Bushman & Vermeiren, 2009). The 50-item Youth Psychopathic Trait Inventory–Child Version (van Baardewijk et al., 2008) was used to measure psychopathic traits and behaviours (grandiose-manipulative, callous-unemotional, and impulsive-irresponsible categories). To assess aggression and empathy, children played a computer game that included two conditions. In the ‘no distress’ condition children were allowed to aggress against the opponent, while in the ‘distress’ condition children were also allowed to aggress against the opponent, with the opponent’s distress made salient by a written computer message expressing his or her fear. The results indicated that the relationship between psychopathology and aggression depended on empathy. Children who scored high in psychopathology only scored high in aggression in the no distress condition, and not in the distress condition. This study illustrates that empathy reduced aggressive responses in children with psychopathology. The way in which children responded in a computer game does not necessarily reflect how children would have responded in real life situations. Nevertheless, this study contributes to a growing body of research illustrating the negative relationship between empathy and aggression.
Empathy and sympathy appear to be important competencies to include in a targeted emotional and social competence programme.

After interpreting the situation in the second step of their model, Crick and Dodge (1994) hypothesised that during step three, children choose to either continue with their pre-existing goal, select a new goal or choose an alternative desired outcome. Therefore, high levels of emotional and social competence are likely to lead to a more personally and socially acceptable outcome. In the model’s step four, Crick and Dodge (1994) hypothesise that children either access from memory possible responses to a given situation or, if the situation is novel, construct new behaviours in response to social cues. While past social experiences are influential at this stage of processing, it is not possible to modify children’s past experiences in an emotional and social competence programme. However, it is possible to create prosocial interactions between peers in a controlled setting, and then build a generalisation of these skills using multiple exemplars and reinforcement. Prior to pre-primary school attendance, children’s social interactions are limited. Therefore, they may not have previously encountered some social situations with peers. Taking into consideration that pre-primary aged children have limited responses they can access from memory, pre-primary is an ideal developmental period in which to teach children possible responses to novel situations through planned psychosocial interventions.

Many early intervention programmes to modulate emotions and behaviour are based on Cognitive Behaviour Therapy (CBT) (e.g., Domitrovich, Cortes & Greenberg, 2007; Izard, Trentacosta, King & Mostow, 2004; Webster-Stratton, Reid & Stoomiller, 2008). The aim of CBT is to improve skills in identifying and changing maladaptive thoughts and behaviour. Clinical interventions based on emotional competence and on Crick and Dodge’s (1994) SIP theory are consistent with CBT. Using CBT techniques,
it is possible to teach and shape children’s behaviour (Verduyn, Rogers & Wood, 2009). For instance, role playing can educate children about diverse ways to respond in situations they may or may not have experienced, particularly conflicting circumstances that can elicit strong emotions (Verduyn et al., 2009). For example, in role play the emphasis might be on prompting prosocial responses as opposed to aggressive responses. Role playing teaches children possible responses to situations they may not have encountered before and alternative responses to other circumstances they may have experienced, but in which there was a negative response. Encouraging children to respond prosocially is likely to build repertoires of alternative positive social events that could serve as resilience building experiences for coping with future adverse interactions. Crick and Dodge’s (1994) SIP model is important in identifying key social competencies to target in a planned programme for children.

In the model’s step five, Crick and Dodge (1994) propose that children make a response decision based on response evaluation, outcome expectations, self-efficacy evaluation and response selection. In step six, the chosen response is behaviourally enacted. Typically, the behaviour can be classified as either prosocial or aggressive. The empirical studies that have investigated the behavioural responses of SIP theory are reviewed in section 2.3.6 (Crick & Dodge, 1996; Shure & Spivack, 1982; Smith & Sharp, 1994; Webster-Stratton & Lindsay, 1999).

In this section, some empirical evidence has been obtained that supports the steps in Crick and Dodge’s (1994) SIP model (for example, Yoon et al., 1999). The following competencies have been argued as constituting emotional and social competence in pre-primary aged children:

1. Understanding emotions in self (e.g., Dunn & Hughes, 1998)
2. Emotional expressivity (e.g., Denham et al., 2003)
3. Emotional knowledge (e.g., Dunn et al., 2002)
4. Emotional regulation (e.g., Denham et al., 2003)
5. Attribution of intent (e.g., Webster-Stratton & Lindsay, 1999)
6. Empathy and sympathy (e.g., van Baardewijk et al., 2009)
7. Prosocial behaviour and minimal aggressive behaviour (e.g., Dodge & Pettit, 2003)

As discussed earlier, the seven competencies are interrelated. Moreover, if each competency is achieved sequentially to a proficient level, high levels of prosocial behaviour and low levels of aggressive behaviour are achieved. While some sequential links have been demonstrated, some competencies do not follow a time-related linear sequence and occur in parallel (Crick & Dodge, 1994). Using evidence on the competencies of emotional competence and Crick and Dodge’s (1994) SIP model of social competence as a theoretical framework, the present study aims to evaluate the competencies involved in understanding emotions in self, emotional expressivity, emotional knowledge, emotional regulation, attribution of intent, empathy and sympathy, prosocial behaviour and minimal aggressive behaviour, in order to design and arrange content for a pre-primary programme.

2.3 Review of Emotional and Social Competencies for Inclusion in a Pre-primary Programme

The typical development of pertinent emotional and social competencies, identified in section 2.2, will be reviewed by examining the short and long-term benefits of enhancing the natural progression of overall emotional and social competence.

2.3.1 Emotional expressivity. Competent emotional expressivity refers to a child displaying more positive than negative emotions. It is one of the first steps in the development of emotional competence (Denham, 2006; Denham et al., 2003).
Social learning is influential in the development of emotional expressivity. Modelling and reinforcement of positive affects occurs from when a baby smiles and caregivers express delight. By the age of six to seven months, infants regularly use smiles as social gestures to share happiness or attempt to prolong certain behaviours they enjoy, such as an adult singing to them (Saarni, Mumme & Campos, 1998). Typically, the environment reinforces children’s expression of more positive than negative affects (Warren & Stifter, 2008). A study with 78 pre-primary school-aged children used maternal reports, Self-Expressiveness in the Family Questionnaire (Halberstadt, Cassidy, Stifter, Parke & Fox, 1995), Coping with Children’s Negative Emotions Scale (Fabes, Poulin & Eisenberg, 2002) and direct observations to assess the relationship between maternal expression of emotions and children’s emotional expressivity (Warren & Stifter, 2008). The results indicated that, in general, children with high emotional expressivity had mothers who scored high in emotional expressivity. The study did not examine other potential social learning influences, such as the emotional expressivity of fathers, peers and teachers.

Various social factors influence children’s development of emotional and social competence. When children commence pre-primary schooling they are exposed to more diverse social situations (Cole & Hall, 2008). For instance, pre-primary children are developing relationships with a wide range of adults and same aged peers, and learning new rules and activities. Therefore, the pre-primary age is an ideal developmental and learning period in which to enhance children’s emotional expressivity.

Pre-primary aged children raised in low SES suburbs may be at greater risks of impediments in the development of competent emotional expressivity than those in high SES suburbs. A family environment in which parents are less able to modulate their emotions may influence emotional expressivity development in their children (Lent et
al., 2009; Macfie & Swan, 2009). One study examined emotional expressivity as measured by the teacher version of the Penn Interactive Peer Play Scale (Coolahan, Fantuzzo, Mendez & McDermott, 2000) in 331 African American pre-primary aged children from low SES suburbs (Cohen & Mendez, 2009). The majority of participants scored low in emotional expressivity. Over a one year period, low emotional expressivity predicted poor social competence when compared to children with high emotional expressivity. All participants in this study were from low SES suburbs, so low SES does not necessarily determine poor emotional expressivity. There were no comparisons to pre-primary school-aged children from schools in high SES suburbs. However, as the majority of children performed below the norms that were expected of ‘typically developing’ children for emotional expressivity, low SES variables are likely to have influenced this outcome.

Other social variables such as peer friendships also affect the development of emotional expressivity. A study was conducted to assess the relationship between emotional expressivity and peer rejection in 111 African American second grade students (Hubbard, 2001). In that study, peers assessed each other as rejected or as likeable and coded behavioural observations were used to assess emotional expressivity. Children who were rated as rejected by their peers scored lower on emotional expressivity compared to peers assessed as likeable. The behavioural observations took place in a laboratory environment, which may have biased the results. However, the findings in this study support other studies that have reported that having high levels of emotional expressivity in childhood promotes the development and maintenance of friendships (Ladd, Birch & Buhs, 1999; Rubin et al., 1998; Scheuermann & Webber, 2002).
Emotional expressivity skills are also essential later in life for the development and maintenance of friendships, romantic relationships and collegial relationships. For example, emotional expressivity has been found to correlate with higher relationship satisfaction with romantic partners (Fardis, 2008). Further, problems in emotional expressivity are associated with negative collegial relationship outcomes in adulthood. For instance, based on a sample of 61 workplace teams in the Netherlands, emotional expressivity and performance was investigated (Cole, Walter & Bruch, 2008). Teams comprised of individuals with low emotional expressivity were more likely to be dysfunctional and have low performance compared to teams composed of individuals who displayed high emotional expressivity. While other components of emotional competence were not evaluated, emotional expressivity appears to be important in well functioning relationships and problems with emotional expressivity are often associated with psychopathology.

Deficits in emotional expressivity are associated with mental illness in adults. For example, problems with emotional expressivity were maintaining factors in post-traumatic stress disorder and borderline personality disorder among males in the United States (Bornovalova et al., 2010). Additionally, adults who experienced childhood trauma had deficits in emotional expressivity and were more likely to engage in deliberate self-harming behaviours (Fliege, Lee, Grimm & Klapp, 2010). Thus, emotional expressivity is an important component in the development and maintenance of relationships and in longer-term, positive mental health outcomes for both children and adults. Hence, it is an important competency to enhance in pre-primary school-aged children when children are encountering a wider range of social situations for the first time.
Pre-primary children from low SES suburbs are at risk for having impediments in the development of their emotional expressivity. Improving emotional expressivity using social learning techniques when a child is only five years old is arguably more likely to be associated with positive long-term mental health and social outcomes. The short-term and long-term outcomes of emotional expressivity are the development and maintenance of high quality relationships. Relationships with others are an essential part of healthy, productive human functioning; positive relationships are a crucial support that can serve as a buffer against the development of mental illness (McCorkle, Dunn, Wan & Gagne, 2009).

**2.3.2 Emotional knowledge.** Emotional knowledge is defined as correctly identifying other people’s emotions and the variables that influence those emotions (Denham 2006; Denham et al., 2003; Miller et al., 2005) and is viewed by some theorists as a component of emotional intelligence (Salovey & Mayer, 1990).

Social learning is imperative in the development of emotional knowledge. Children below the age of three years have limited understanding of others’ emotions. During the first three years of life, children use social referencing. Social referencing has been defined as the use of others’ emotional expressions to obtain information on or predict the meaning of ambiguous situations (Mumme & Fernald, 2003). For example, in the Mumme and Fernald (2003) study, one-year-old children obtained social referencing from a television segment. First, they viewed a segment that depicted an adult reacting in a fearful manner to an object. Next, they were presented with the feared object and they then either avoided or reacted negatively to the object (Mumme & Fernald, 2003). While there are the relationships between the child viewing the television segment and their actions, the cognitive processes of one-year-old children are unclear. However, social referencing appears to be helpful for children under three
years of age and as children age their understanding of other’s emotions improves through social learning.

Research indicates that, developmentally, five-year-old children are improving in their ability to comprehend emotional knowledge (Widen & Russell, 2003). For example, the evidence indicates that the majority of children aged three years and younger are unable to correctly identify and label emotional expressions in photographs of people or on puppets’ faces (see Widen & Russell, 2003, for a review). However, using photographs of people or puppets’ faces, children aged between three and four years were likely to be able to identify and label positive emotions such as ‘happy’, whereas children aged between four and five years were also able to identify and label negative emotions such as ‘sad’ (Widen & Russell, 2003). Their research illustrates that at the age of four or five years children are only beginning to recognise both positive and negative emotions in others.

Another developmental milestone in emotional knowledge is that at four to five years of age children are becoming aware that a person’s current feelings may stem from a reflection on past events. For instance, in a study by Lagattuta, Wellman, and Flavell (1997) children heard a story about a girl whose rabbit ran away. Much later the story stated that the girl was sad when she saw a photo of a rabbit. The children were then asked why the girl was sad. Most three year olds were incorrect, but 80% of four year olds and all of the five year olds were correct in inferring that Mary felt sad because her rabbit ran away (Lagattuta et al., 1997). Longitudinal evidence also supports the contention that the pre-primary age is an important developmental milestone in emotional knowledge (Ketelaars, van Weerdenburg, Verhoeven, Cuperus & Jansonius, 2010). Emotional understanding was assessed in 77 five-year-old children in a middle SES suburb over three consecutive years (Ketelaars et al., 2010). Results
illustrated that children’s emotional knowledge at five years of age remained fairly stable when the same children were reassessed at age eight. If, as the findings of Lagattuta et al. (1997) suggest, pre-primary children are still developing their basic understanding of emotions and building their emotional knowledge, then enhancing children’s emotional and social competence at this age is likely to have positive short-term and long-term outcomes (Ketelaars et al., 2010).

There are many positive short-term outcomes associated with increased emotional knowledge. Emotional knowledge contributes to high level, complex behaviours. For example, once children have been able to understand and manage their emotions, their capacity to learn to understand and manage social interactions with others increases (Liew, Eisenberg & Reiser, 2004). Additionally, children who are able to correctly identify emotions in others have higher social skills and sustain friendships longer than those who were incorrect (Bandura, 1986; Dunn et al., 2002; Hobson, 1993; Izard et al., 2001; Scheuermann & Webber, 2002). Socially skilled peers, for example, are more likely to be chosen as partners for play activities (Droege & Stipek, 1993). Moreover, children, who are able to understand others’ feelings have been found to be more likely to correctly interpret what other people feel, think and intend. This competency, in turn, is related to higher levels of empathy and prosocial behaviour (Chalmers & Townsend, 1990; Denham, McKinley, Couchoud & Holt, 1990; Dodge et al., 2002; Eisenberg & Fabes, 1998; Eisenberg, Zhou & Koller, 2001; Hudson, Forman & Brion-Meisels, 1982).

Emotional knowledge is positively related to increased emotional and social competence. Liew et al. (2004) investigated the relationship between emotional knowledge and social competence in 78 pre-primary school-aged children. Parents, teachers and peers rated children on emotional knowledge and social competence.
Parents’ and teachers’ ratings showed that pre-primary children who were competent in understanding emotions were found to have better social competence than those who were less competent in understanding emotions (Liew et al., 2004). While in typically developing children, four to five years of age is a crucial developmental period in which to enhance emotional knowledge, children from low SES suburbs are at increased risk of developmental delays in emotional knowledge (Sullivan, Carmody & Lewis, 2010). In a low SES suburb in the United States, 42 pre-primary school-aged children’s emotional knowledge was assessed (Sullivan et al., 2010). The study reported that neglectful parenting predicted poor emotional knowledge. Moreover, children with problems understanding the emotions of others tend to have difficulties in their social relations. For example, children with poor emotional knowledge are more likely to be rejected and are less likely to be popular, than children who are able to understand emotions (Denham et al., 2002). Further, children with poor emotional knowledge have been found to behave aggressively rather than prosocially in the company of peers (Schultz, Izard & Bear, 2004).

Widen and Russell’s (2003) review highlighted that the age of four to five years is a particularly important time of developmental transition in emotional knowledge. Overall, the research reviewed here gives credibility to the notion that enhancing children’s emotional knowledge when they are in pre-primary school is fundamental for early intervention programmes and that emotional knowledge is clearly a key variable in the development of emotional and social competence.

2.3.3 Emotional regulation. Emotional regulation is the ability to modulate one’s experience and expression of emotional arousal to an appropriate level of intensity to successfully achieve one’s goals (Campos, Franel & Camras, 2004; Denham et al., 2003).
Emotional regulation appears to be developmentally acquired during early life through social learning and does not appear to be present at birth (Garber & Dodge, 1991). From birth, caregivers assist infants by soothing and maintaining positive states, supporting physiological homeostasis for the infant and reinforcing the development of emotional regulation (Diener & Mangelsdorf, 1999). For example, six-month-old babies presented with unpleasant stimuli either turned their bodies away from the stimulus or sucked their thumbs (Mangelsdorf, Shapiro & Marzolf, 1995). The authors concluded that the babies managed to reduce some negative arousal by their response. Even though there is limited research in this area, given the difficulty of directly assessing babies’ emotional regulation, it could be interpreted that six-month-old babies are already learning emotional regulation strategies, within their capabilities, and that, as children age, their emotional regulation skills develop through social learning.

The pre-primary age is an important developmental and learning period for children’s emotional regulation. Children three years of age have been found to have the capacity to regulate their emotions. Context appropriate emotions and the emerging skills of modulating emotions to conform to social norms have been reported in three-year-old children (Cole & Hall, 2008; Lewis, Stranger & Sullivan, 1989; Qu & Zelazo, 2007). For instance, three year olds lied about peeking at a forbidden toy and displayed subtle signs of anguish that were detectable when viewed on film in slow motion (Lewis et al., 1989). However, in real life, adult judges were unable to discriminate between the lying children and the children who told the truth, indicating that children were able to regulate their emotions to achieve desired outcomes. Thus, from three years of age children were able to modulate their emotions to avoid trouble. However, studies of older children suggest that a developmental transition occurs sometime between three and five years of age. Two false-belief tasks were undertaken in a study with 72
children with a mean age of 4.8 years and 80 children with a mean age of 4.5 years (Polak & Harris, 1999). In contrast to the Lewis et al. (1989) study, Polak and Harris (1999) found that children were unable to modulate their emotions to achieve desired outcomes. Although the direct child measures used were different in each of the studies, it appears that between three and five years of age children learn emotional regulation. In pre-primary school, children become increasingly aware of socially acceptable behaviour. Additionally, that environment provides an increase in social opportunities to learn how to modulate behaviour in particular circumstances. Therefore, during this developmental period, providing learning and support to children may enhance their emotional regulation.

Children’s emotional regulation beyond the pre-primary age is also shaped by family, modelling, social expectations, parenting and personal experiences with others (Cole & Hall, 2008). For instance, in a study into the expression of anger among 11 to 12-year-old children in the United States and Nepal (Cole, Bruschi & Tamang, 2002), the children were told about a situation in which a child’s father slaps the child’s hand. The majority of the children in the United States said they would express anger about being slapped. Conversely, most children in Nepal said they would express shame, as they were wrong for acting in a manner that would upset their father, whom they respected. These differences could be related to the collectivist values of Nepalese children and individualistic values of children in the United States. This example illustrates that children will learn to act in accordance with the values and explicit rules of their cultural group. The development of emotional regulation is dependent on such social learning experiences. Therefore, when children are commencing school, there are opportunities to enhance and influence socially acceptable emotional regulation in that context. Based on the research outlined above (Cole et al., 2002; Lewis et al., 1989),
when children are in pre-primary school, they have the developmental capacity to understand concepts, such as context appropriate emotions, and they have the skills to modulate emotions (Cole & Hall, 2008; Cole, Martin & Dennis, 2004). However, these concepts and skills are not a fundamental part of the school curriculum. If children are taught these skills when they are developmentally cognitive-capable, rather than at a later developmental stage when problems in emotional regulation may be encountered, it can be argued that they will be less likely to develop psychopathology or experience social maladjustment.

Various social factors may hinder the development of emotional regulation and lead to the development of psychosocial problems. Children raised in low SES suburbs are at greater risk of being exposed to adverse circumstances or trauma (e.g., neglect, physical, sexual and psychological abuse) which may hinder their ability to appropriately regulate their emotions and make them vulnerable to negative psychosocial outcomes (Gunnar & Quevdeo, 2007). In addition, parents from low SES suburbs are more vulnerable to mental illness, which may affect their capacity to influence their child’s emotional regulation (Cicchetti, Ganiban & Barnett, 1991). For example, children of parents with mental illness may have difficulties in regulating their emotions (Cicchetti et al., 1991). Additionally, the consequences of maternal depression for some children are poor emotional regulation (Feng et al., 2008; Maughan, Cicchetti, Toth & Rogosch, 2007).

In Maughan et al.’s (2007) longitudinal study investigating the relationship between maternal depression and emotional regulation, 151 mothers and their children were assessed when the children were at one and a half, three, four and five years of age. Ninety-three mothers met the diagnostic criteria for Major Depressive Disorder (MDD) within the first 21 months after their child’s birth and 58 mothers had no history
of MDD. The relationship between maternal depression and children’s emotional regulation was stronger at age four years than at age five. Enhancing emotional regulation during the pre-primary age development period is also important because emotional dysregulation is evident in the symptom criteria and associated features of various disorders identified in the Diagnostic and Statistical Manual, Fourth Edition, Text Revision, (American Psychiatric Association [DSM-IV-TR], 2000) and the International Statistical Classification of Diseases (World Health Organisation [ICD-10], 2007). For example, depression, anxiety, conduct disorder, eating disorders and personality disorders have all been associated with measures of emotional dysregulation (Cole & Hall, 2008). Emotional dysregulation is a risk factor for the development of psychopathology (Cole & Hall, 2008; Schaeffer et al., 2003) and social maladjustment (Cole & Hall, 2008; Schaeffer et al., 2003).

Having high emotional regulation is also related to healthy adult functioning (Eisenberg et al., 1997). For example, in a study examining the relationship between interpersonal problems, adult attachment and emotional regulation in 138 adults with and without anxiety disorders (Lowry, 2009), participants with an anxiety disorder reported significantly more interpersonal problems, emotional regulation difficulties and insecure adult attachment, than the group without anxiety disorders. Additionally, participants who met the diagnostic criteria for three anxiety disorders, compared to those who met the diagnostic criteria for one anxiety disorder, had significantly more interpersonal problems, emotional regulation difficulties and insecure adult attachment. The sample in the latter study was comprised of university students and participant age was not examined. Nevertheless, the results highlight that emotional regulation is associated with psychopathology and interpersonal problems.
In the literature on pre-primary children there is significant agreement that emotional competence is displayed as a goal-oriented behaviour in initiating and sustaining positive, cooperative social interactions among teachers and other children (Denham et al., 2003; Eisenberg, Fabes & Losoya, 1997; Howse, Calkins, Anastopoulos, Keane & Shelton, 2003; Roberts, 1999). When children commence pre-primary school, individual differences in emotional competence exist (Cole & Hall, 2008) as the development and understanding of emotional competence commences prior to pre-primary school. Nevertheless, the set of skills that constitute emotional competence continues to develop when children begin school (Cole & Hall, 2008). Arguably, risk factors associated with the manifestation of emotional dysregulation can be reduced by targeting emotional regulation in pre-primary intervention programmes.

2.3.4 Hostile attribution of intent. Hostile Attribution of Intent (HAI) refers to a child’s hostile cognitive appraisal of a person’s intentions in an ambiguous situation (Crick & Dodge, 1996). According to SIP theory, the encoding (first stage) and interpretation of social cues (second stage) both involve attribution of intent. Deducing social cues requires appraising others’ thoughts and having awareness of one’s own emotional response to the situation. Cognitive developmental theories describe how pre-primary aged children process other people’s intentions.

Piaget’s cognitive developmental viewpoint suggests that in the pre-operational stage, five-year-old children are egocentric (viewing the world from their own perspective while failing to recognise that others have different viewpoints) and are therefore unable to recognise other’s cognitions (Shaffer, 2005). However, theory of mind, (ToM), the capacity to comprehend that people are cognitive beings with mental states that are not always accessible to others and that often guide their behaviour, is suggested to develop in children at around four years of age (Wellman & Woolley,
1990). It may be argued that Piaget’s cognitive developmental theory underestimates the social-cognitive abilities of pre-primary aged children. In contrast, Wellman and Woolley (1990) found that typically developing children display ToM between four and five years of age. In standard ToM false-belief tasks, children are assessed on their understanding that people can hold inaccurate beliefs that can influence their behaviour, although these beliefs may be wrong. A classic example is:

Sam puts some chocolate in a blue cupboard and goes out to play. In his absence, his mother moves the chocolate to the green cupboard. When Sam returns, he wants his chocolate. Where does he look for it?

Three year olds predominantly respond that it is in the green cupboard. It is suggested that as their beliefs reflect reality for them, they presume that Sam will be driven by his desire for chocolate to look in the correct cupboard. By contrast, four to five year olds predominantly respond that the chocolate is in the blue cupboard. This correct response suggests a developmental change in children being able to understand that, although they know where the chocolate is, Sam does not. This example illustrates that four year olds with a belief-desire ToM can demonstrate a high level of understanding of the subjective nature of mental states, such as desires and beliefs (Wellman & Woolley, 1990). Further, by age five, children have the capacity to use their knowledge of mental states, along with their observations of behavioural regularities, to allude to accurate inferences and predictions about a person’s future behaviour (Alvarez, Ruble & Bolger, 2001; Wellman & Woolley, 1990). In the Shultz, Wells and Sarda (1980) study of 125 three to five-year-old children, direct child measures were used asking children causal questions about pretend scenarios. It is difficult to assess young children’s cognitive capabilities, to reliably predict if their responses are an accurate reflection of their cognitive processes and then to know whether their cognitive processes in pretend
scenarios would be similar in real life situations. The evidence from (Shultz et al., 1980) suggests that children as young as five years of age have the developmental capability to cognitively appraise situations and that it is likely, when children are in a pre-primary stage, they have the capacity to understand unintentional and intentional action. It may be argued that providing programmes that include this component will lead to the enhancement of emotional and social functioning, namely low hostile attribution of intent will be associated with increases in prosocial behaviour and decreases in aggressive behaviour, as has been demonstrated in previous research (Chalmers & Townsend, 1990; Denham et al., 1990; Eisenberg & Fabes, 1998; Eisenberg et al., 2001; Hudson et al., 1982).

The fundamental principles of CBT are that thoughts interact with feelings and behaviours to influence our feelings and behaviour (Beck & Alford, 2009). Therefore, giving others the benefit of the doubt is likely to lead to benefits such as developing higher levels of empathy, sympathy and prosocial behaviour. When children develop ToM, their emotional and social competencies are advanced, as they are capable of having a more comprehensive understanding of empathy and sympathy, which, in turn, promotes the acquisition of prosocial behaviours. It is imperative to facilitate the development of accurate attribution of intent in pre-primary children to foster more prosocial behaviours as opposed to aggressive behaviours (Webster-Stratton & Lindsay, 1999).

A Western Australian study based on interviews with pre-primary teachers reported that children were inappropriately displaying high levels of aggression and bullying (Cross et al., 2004). If children are incorrectly negatively appraising social situations, there is a higher probability that such appraisals will lead to socially unacceptable behaviour. It is important, therefore, to ascertain whether children are
correctly or incorrectly appraising situations. Arguably, if children already have a HAI bias by a pre-primary school-age, that age is a developmentally appropriate age to modify this bias, as children are only commencing to learn about others’ cognitive processes. Additionally, as previously noted, research illustrates that, once developed, children’s ToM generally remains stable over the years that follow (Ketelaars et al., 2010).

The development of cognitive processes, such as ToM, which influence attribution of intent can be hindered by risks associated with low SES. For instance, a study examined the ability to complete ToM tasks in typically developing children from various SES suburbs (Cutting & Dunn, 1999). Their results showed that children with parents from low SES suburbs and with lower maternal educational levels had delayed ToM understanding, even after controlling for language ability (Cutting & Dunn, 1999). This study is one example of how the development of cognitive processes, such as ToM, can be affected by general SES. However, children’s understanding of other’s cognitive processes are amenable to change and can be modified by planned, focused intervention programmes. Not enhancing children’s ability to give others the benefit of the doubt, is associated with many short-term and long-term disadvantages for children and adults.

There are consequences of negative attribution biases in both childhood and adulthood. The role of cognitive distortions in the development of psychopathology and social maladjustment has been reported to be significant (Cole & Hall, 2008). To illustrate, children and adults who are more likely to have internal, stable and global attributions of negative events are more susceptible to the development of depressive symptomology, compared to individuals who demonstrate external, transient and specific attributions (Beck & Alford, 2009; Seligman et al., 1995). Research suggests
that, developmentally, five-year-old children who have high HAI are more likely to exhibit a pessimistic attribution style in later primary school and be more prone to the development of mental illness (Seligman et al., 1995).

In a study assessing attribution of intent, 60 children between four and seven years of age and diagnosed with Oppositional Defiant Disorder (ODD) were compared to 60 typically developing children (Webster-Stratton & Lindsay, 1999). Children diagnosed with ODD were found to have higher HAI, according to observations of conflict management situations and social play interactions during peer interactions, positive social interactions with mothers and fathers at home and teacher reports of social competence according to the Child Behaviour Checklist (Achenbach & Edelbrock, 1991), Behar Preschool Behaviour Questionnaire (Behar, 1977) and Teacher Assessment of Social Behaviour (Cassidy & Asher, 1992). These results illustrate a strong relationship between HAI and psychopathology. Cognitive models of disorders are based on the notion that the development of psychopathology is not directly caused by negative life events or unfavourable circumstances, but rather the thought processes that appraise these situations (Beck & Alford, 2009). Further, these processes become incorporated into one’s schemata and become a habitual manner of viewing the self, the world and the future (Beck & Alford, 2009; Young et al., 2003). For instance, a high predictor of depression is a pessimistic attributional style, with negative life events as a moderator (Beck & Alford, 2009). Across age groups, more optimistic attributional styles are more likely to facilitate empathy and sympathy, and prosocial behaviour (Beck & Alford, 2009; Young et al., 2003).

2.3.5 Empathy and sympathy. Empathy refers to experiencing vicariously the same or similar cognitions and emotions that another person is experiencing (Eisenberg
ME AND MY MATES

& Fabes, 1998). Sympathy refers to compassionately understanding and supporting the experience of another person (Eisenberg et al., 1994).

There is evidence that empathy may be present in newborn babies. Three studies compared newborn (less than 36 hours old) babies’ responses to another infant crying, an equally loud computer simulation of a baby crying and silence. Results showed that babies who heard a real baby crying soon began to cry themselves and displayed physical signs of agitation, such as kicking, whereas babies exposed to the simulated cry or to silence cried significantly less and did not appear as discomforted (Dondi, Simion & Caltran, 1999; Martin & Clark, 1982; Sagi & Hoffman, 1976). It is not possible to directly assess empathy in babies; however, the results of the three studies were similar in that very young infants responded to the cries of distressed infants in an empathic way. Hoffman (1981, 2000) has claimed that the capacity for empathy is a biological substrate for prosocial behaviour.

Conversely, social learning suggests that our capacity for empathy could lead to providing comfort or assistance to others, which is then reinforced by social praise, feeling good about self or reducing one’s distress. For instance, if someone comforts or assists a person in distress, it may comfort both the distressed person and the one giving the help and being empathic (Eisenberg & Fabes, 1990). While there may be some biological or even evolutionary origins of empathy, arguably social learning is more important in enhancing and maintaining the development of empathy and sympathy over time.

Parents do influence the development of empathy and sympathy. A study with 180 children with a mean age of 9.4 years at pre-intervention examined the relationship between parental warmth, emotional expressivity and empathy over a two year period (Zhou et al., 2002). Empathy was assessed by children’s facial expressions when
viewing positive and negative slides (Buck, 1975) and children’s self-report of feelings towards the slides. After controlling for prior levels of parenting and individual differences in children’s empathy, parents who were warm, nurturing and expressed more positive than negative emotions were found to have children who scored higher on both empathy measures. In measuring empathy, children’s self-reports were not consistent with their coded facial expressions and the researchers decided to rely predominately on facial expressions. Empathy is a difficult construct to directly assess in children and more research is needed to establish agreed measures with high reliability and validity. Nevertheless, social learning experiences with parents influence the development of empathy.

Further, parental warmth is viewed as a pivotal component of secure attachment (Ainsworth, Blehar, Waters & Wall, 1978), and a secure attachment has been found to be a predictor of children’s empathy (Kestenbaum, Farber & Sroufe, 1989). The development of empathy and sympathy can, therefore, be negatively affected by parents who do not frequently express warmth or where there is poor parent-child attachment (Eisenberg et al., 1993; Kestenbaum et al., 1989). Various social learning experiences influence the development of empathy and sympathy.

Empathy and sympathy are positively associated with children’s moral development (Hoffman, 2000), promote prosocial behaviour (Eisenberg & Fabes, 1998), social competence (Eisenberg et al., 1996) and the development of friendships (Shure & Aberson, 2005; Worthen, 2000). In a review by Eisenberg and Fabes (1990) of several multi-method studies, comparisons were made between children who scored high and low on empathy. Those who scored high on empathy had higher emotional knowledge and higher prosocial behaviour, as measured by physiological, self-report and facial assessments. In addition, being inconsiderate of others’ feelings was
associated with the lack of development and maintenance of friendships (Eisenberg & Fabes, 1990, 1998; Worthen, 2000). Social competence difficulties, such as the lack of expression of empathy and sympathy in the enactment of prosocial behaviour, have been linked with difficulties in establishing and maintaining friendships (Trompenaars, Masthoff, van Heck, De Vries & Hodiamont, 2007). Further, friendships and social support can act as a preventative factor in the development of psychopathology (e.g., McCorkle et al., 2009).

In adults, not having the capacity to feel and display empathy and sympathy is a core characteristic of personality disorders (American Psychiatric Association, 2000; World Health Organisation, 2007). For example, the diagnostic criteria for narcissistic personality disorder include a lack of empathy or an unwillingness to recognise or identify with the feelings and needs of others (American Psychiatric Association, 2000; World Health Organisation, 2007). Further, SES, maternal expression, empathy and sympathy have been assessed in women who met the diagnosis for borderline personality disorder and their families (Guttman & Laporte, 2002). Empathy was measured by the Interpersonal Reactivity Index (Davis, 1980). The results showed that low SES was associated with decreased expressions of empathy and sympathy in family members.

The literature reviewed here provides support for including empathy and sympathy competencies in a programme for pre-primary school children. Empathy and sympathy play important roles in achieving positive mental health, prosocial behaviour and in the development and maintenance of healthy interpersonal relationships at all ages (Bengtsson-Tops & Hansson, 2001; Eisenberg et al., 1998).

**2.3.6 Increased prosocial behaviour and decreased aggressive behaviour.**

Prosocial behaviour refers to any action that benefits other individuals (Eisenberg et al.,
To behave prosocially in pre-primary school, children may also be considered to be acting in a moral manner by following socially acceptable school rules and conduct standards (Eisenberg et al., 2010).

Morality has been construed as having an affective, cognitive and behavioural component (Eisenberg et al., 2010). The affect component consists of feelings, such as guilt, empathy or sympathy, that surround right or wrong actions and that motivate moral thoughts and actions. The cognitive component consists of the conceptualisation of right and wrong and the decisions we make on how to behave. The behavioural component refers to actual behaviour that is enacted when we experience the temptation to violate moral rules. According to Piaget’s theory of moral development, children below five years of age are in the pre-moral period and after five years are in the stage of moral realism (Carpendale, 2009). The pre-moral period is when children display neither respect for, nor awareness of socially defined rules, whereas in the stage of moral realism, children view the rules of authority figures as sacred and unalterable.

A study assessing morality was conducted on 61 children with an average age of 4.36 years and again nearly two years later when they had a mean age of six years (Yau & Smetana, 2003). Direct child observations were used to examine moral transgressions in hypothetical situations. The study reported that children aged four years considered moral transgressions, such as hitting, stealing and not sharing, to be more serious than violations such as eating in class or not using manners when told to by an authority figure (Yau & Smetana, 2003). It is not clear whether children’s cognitions of hypothetical situations would be the same as those in real personal situations. Nevertheless, it appears as though there is a period of change in moral development around the age of four to five years. During this developmental period, when pre-primary children are becoming increasingly aware of school rules and conduct, or when
issues of what is moral arise, it is ideal to put a planned programme in place to enhance prosocial behaviour.

There are other developmental models, based on social learning theories, which describe prosocial behaviour. Erikson’s (1985) stages of psychosocial development and Hendrix’s (1992) model of the psychosocial journey of the self both suggest that four to six-year-old children develop a sense of competence through initiating and engaging in tasks to achieve their personal goals. Pre-primary aged children often define themselves in terms of their activities and physical capabilities (Graves & Larkin, 2006). This self-view is healthy, as an activity-based self concept reflects the sense of competence they will need in order to cope with the many new lessons they will learn at pre-primary school (Graves & Larkin, 2006).

Children from low SES suburbs who enter pre-primary school after having experienced negative life circumstances are at increased risk of having low prosocial behaviour as was reported in a study conducted on 82 five-year-old children who were raised in low SES suburbs and exposed to neglect and physical maltreatment. Children who were maltreated scored lower in prosocial behaviour and displayed more stealing behaviours and less rule compatible behaviour, than children who were not maltreated (Koenig, Cicchetti & Rogosch, 2004). Targeted programmes in low SES suburbs could increase pre-primary school-aged children’s prosocial behaviour.

The development of skills that are prosocial and socially acceptable are positively associated with the development and maintenance of friendships (Wellman & Woolley, 1990). Children who are most liked by their peers at school have been found to be friendly, compassionate, display more prosocial behaviours, successfully initiate and maintain interpersonal interactions and competently resolve disputes amicably (Chen, Li, Li & Liu, 2000; Coie, Dodge & Kupersmidt, 1990; Denham, McKinley,
Research has been undertaken to examine the direction of these effects. Are children popular because they are prosocial and non-aggressive or do children become more prosocial and less aggressive after gaining popularity? Children were placed in playgroups with unfamiliar children and their behaviours were observed to see whether they would predict eventual status in the peer groups. Several studies of this nature have found similar results. Children who are initially accepted by unfamiliar children are highly effective at initiating social interactions, display high prosocial behaviours and low aggression (Coie et al., 1990; Dodge, 2006; Dodge & Newman, 1981; Ladd et al., 1988), suggesting that these behaviours ‘come first’ in the causative chain. Moreover, research supports the conclusion that children with strong positive bonds with their peers and teachers are far less involved in risk behaviours than children without these bonds (Roberts, 1999). Further, children who have better emotional and social competence do respond better when faced with adversity and are less prone to mental illness in later life (Seligman et al., 1995).

Longitudinal research also shows the long-term benefits of prosocial behaviour. Pre-primary children who form close friendships have been found to display high levels of cooperative play, prosocial behaviours, high levels of understanding others’ emotions and to be good at ‘reading’ the feelings of others (Dunn & Cutting, 1999; Dunn et al., 2002). Socially competent five year olds, who are able to establish close friendships, find it easier to make new friends later in primary school (Dunn et al., 2002). In a seventeen year longitudinal study, children who had high levels of empathy, sympathy and prosocial behaviour at ages four to five remained more helpful, considerate of others and were more articulate about prosocial issues and social responsibilities throughout childhood, adolescence and young adulthood (Eisenberg et al., 1999).
According to Nelson and Crick (1999), very competent children have low hostile attribution of intent, which is the tendency to give others the benefit of the doubt, even when peers displeased them. Taken together, it could be inferred that prosocial behaviour established in five year olds remains fairly stable over time, supporting the need for early intervention programmes in pre-primary school. Conversely, aggressive behaviour needs to be addressed in planned psycho-social programmes.

Social learning theories focus on the processes by which aggressive responses are acquired and maintained, and the cognitive aspects to aggressive behaviour, particularly the interpretation of social situations (Crick & Dodge, 1996; Frick et al., 2003). Aggression has been described as having three components: proactive, reactive and instrumental (Camodeca, Goossens, Terwogt & Schuengel, 2002). Compared to non-aggressive children, proactive aggressors rely on aggression as a manner of solving social problems or achieving other personal objectives, whereas reactive aggressors exhibit high levels of hostile, retaliatory aggression related to over-attributing the hostile intents of others and are unable to regulate their anger long enough to seek non-aggressive solutions to social problems (Camodeca et al., 2002). Instrumental aggression is aimed at achieving a particular object, event or effect (Camodeca et al., 2002).

Various factors influence the development of aggressive behaviour in children. Evolutionary perspectives point to an instinctual basis for aggression (Feshbach, 1989; Lorenz, 1966). However, Bandura’s social learning theory of aggression adduces that aggressive responses are learned through observation and direct experience (Bandura, 1986). Therefore, children who witness aggression are more likely to be aggressive, and those who are reinforced for aggressive behaviour are more likely to act similarly in the future. Skinner’s operant-learning theory purports that behaviours that are positively
reinforced are more likely to be repeated, whereas behaviours that are punished are less likely to be repeated (McMahon & Forehand, 2003). The effectiveness of punishment, such as consistent timeout (placing children in a boring place for several minutes), decreases aggressive behaviour (McMahon & Forehand, 2003).

Children’s social learning was examined in a recent study conducted in 34 family homes (Attili, Vermigli & Roazzi, 2010). Mothers’ interactions with their children, aged seven to nine years, were assessed through observation and videotapes. Mother-child interactions that were negative and non-confirming (threatening, criticising, hostility expressed in various ways, ignoring, answering irrelevantly) resulted in children being more aggressive and rejected by peers, whereas mother-child interactions that were positive and confirming (physically friendly, approving, encouraging, helping, comforting, protecting, sharing) resulted in children who were prosocial and popular (Attili et al., 2010). These findings reinforce the importance of social learning.

Social learning theory also accounts for gender differences in the behavioural expression of aggression. Males have been found to exhibit more overt aggression and females more relational aggression, such as exclusion and bullying (Crick & Grotpeter, 1995). Girls that are high in relational aggression also display high hostile attribution of intent in ambiguous situations (Crick, Grotpeter & Bigbee, 2002). On that basis, appropriate CBT strategies can teach both boys and girls more socially acceptable prosocial responses to manage conflictual situations.

The Crick and Dodge (1994) SIP theory is consistent with CBT. Reactive aggressive children, who had a history of aggressive behaviour with peers, were more likely to conclude high hostile attribution of intent in ambiguous situations than were non-aggressive children (Crick & Dodge, 1994). This high hostile attribution of intent,
in turn, leads to negative experiences with both teachers and peers (Ladd & Burgess, 2001; Meehan, Hughes & Cavell, 2003; Poulin & Boivin, 2000) who come to dislike them, thereby increasing their expectancy of high hostile attribution of intent.

It has been postulated that proactive aggressors display different patterns of SIP as they do not feel disliked by peers or do not exhibit high hostile attribution of intent in ambiguous situations (Galen & Underwood, 1997). However, these individuals still may react aggressively to achieve a desired outcome (Galen & Underwood, 1997).

Additionally, although a child may have a low hostile attribution of intent in ambiguous situations, he/she may react aggressively due to viewing it as ‘acceptable’ to respond aggressively to provocation (Astor, 1994). This aggressive response highlights the importance of social learning influences.

When children are five years old, they are only beginning to learn to interpret others’ thoughts and emotions. Therefore, during this developmental period, enhancing children’s competency in attributing others’ intent and gaining understanding of others’ emotions is likely to lead to less aggressive behaviour.

There are many detrimental outcomes from aggressive behaviour. Four categories of adverse health outcomes related to aggressive behaviour were described by Rigby (2003). These include: low psychological well-being, such as low self-esteem, poor social adjustment, (for example, withdrawal from social environment); mental illness, (including depression (Roland, 2002), anxiety (Wolke et al., 2001) and suicidal ideation); and physical disorders or psychosomatic complaints. Moreover, aggressive behaviour tends to be associated with bullying (Unnever & Cornell, 2003), peer rejection (Coie & Dodge, 1998; Rubin et al., 1998) and poor school performance (Tremblay et al., 1992). In turn, many of the negative outcomes of aggressive behaviour have a cumulatively debilitating impact. For example, peer rejection in aggressive
children has been found to be associated with higher levels of future aggression, delinquency, anxiety and depression (Crick, Casas & Mosher, 1997; Guerra, Asher & DeRosier, 2004). Targeting reductions in aggression when children are five years old could foster a more positive developmental trajectory for them.

There are also the detrimental effects of victimisation that may be considered in intervention programmes. Children who experience aggressive behaviour by other children have a higher probability of feeling lonely (Coplan, Closson & Arbeau, 2007; Kochenderfer & Ladd, 1996a, 1996b; Unnever & Cornell, 2003), having anxiety (Kaltiala-Heino, Rimpela, Marttunen, Rimpela & Rantanen, 1999; Kochenderfer & Ladd, 1996b; Roland, 2002; Unnever & Cornell, 2003; Williams, Chambers, Logan & Robinson, 1996; Wolke, Woods, Bloomfield & Karstadt, 2001), feeling depressed (Hawker & Boulton, 2000; Kaltiala-Heino et al., 1999; Kochenderfer & Ladd, 1996b; Roland, 2002; Unnever & Cornell, 2003; Williams et al., 1996; Wolke et al., 2001), having low self-esteem (Kaltiala-Heino et al., 1999; Kochenderfer & Ladd, 1996b, Roland 2002; Unnever & Cornell, 2003; Wolke et al., 2001), suicidal ideation (Roland, 2002; Unnever & Cornell, 2003) and mental illness (Wolke et al., 2001).

Poor social competence has been found in many studies to be associated with various mental health symptomologies in children and adults, such as depression (Rockhill, Stoep, McCauley & Katon, 2009; Steger & Kashden, 2009), anxiety (Norton, 2010), conduct disorder (Drugli, Larsson, Clifford & Fossum, 2007), alcohol and/or substance abuse (Courbasson & Nishikawa, 2010) and schizophrenia (Bengtsson-Tops & Hansson, 2001). A perceived lack of social acceptance has also been found to be related to loneliness (Jackson, 2007), depression (Steger & Kashden, 2009) and suicide (Hill, 2009). Social skills that clearly assist in the formation of social competence are
particularly important in pre-primary school, as it is during this period of development that children begin to develop more relationships outside of the home environment.

Results from longitudinal research show that patterns of behaviour displayed in childhood remain relatively stable into adulthood. For example, a body of longitudinal research (Bullis & Walker, 1994; Eron, 1990; Eron & Huesmann, 1990; Francis, Shaywitz, Stuebing, Shaywitz & Fletcher, 1991; Hart, Olsen, Robinson & Mandleco, 1997; Hawkins et al., 2000; Henry, Caspi, Moffitt & Silva, 1996; Kokko & Pulkkinen, 2000; Loeber & Farrington, 1998; Moffitt, Caspi, Harrington & Milne, 2002; Newman, Caspi, Moffitt & Silva, 1997; Schaeffer et al., 2003; Temchef et al., 2008; Tolan & Gorman-Smith, 1998; Tremblay et al., 1992, Tremblay, Pagani-Kurtz, Masse, Vitaro & Pihl, 1995; Walker, Colvin & Ramsey, 1995) has found that aggression displayed in children aged between three and ten years is a fairly stable predictor of aggressive or antisocial conduct later in life and of the development of antisocial personality disorders. Specifically, Huesmann, Eron, Lefkowitz & Walder (1984) followed 600 child participants for 22 years and found highly aggressive eight year olds were more likely to be perpetrators of domestic violence and to be convicted of criminal offences at age 30, compared to low aggressive eight year olds.

Another longitudinal study that followed children up to 30 years later found that childhood aggression was predictive of self-reported spousal violence and of increased use of violence toward their children as parents (Temchef et al., 2008). Enhancing prosocial behaviour of pre-primary children from low SES suburbs using social learning principles in a planned intervention could help ameliorate the numerous detrimental short-term and long-term costs.

The review of the typical development of pertinent emotional and social competencies, and the short-term and long-term benefits of enhancing the natural
progression of emotional and social competence, will guide the design and content for Me and My Mates. Table 2.1 illustrates and defines the seven emotional and social competencies that are included in Me and My Mates.
Table 2.1

*Seven Emotional and Social Competencies for Inclusion in Me and My Mates*

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<th>Competency</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>Understanding emotions in self</td>
<td>Identifying and accurately labelling emotions, stating feelings, body sensations and describing thoughts that trigger certain emotions (Dunn &amp; Hughes, 1998).</td>
</tr>
<tr>
<td>Emotional expressivity</td>
<td>Frequent expression of more positive emotions and relatively infrequent displays of negative emotions (Denham 2006).</td>
</tr>
<tr>
<td>Emotional knowledge</td>
<td>The ability to correctly identify other people’s emotions and the variables that influence those emotions (Denham 2006).</td>
</tr>
<tr>
<td>Emotional regulation</td>
<td>The ability to modulate one’s experience and expression of emotional arousal to an appropriate level of intensity to successfully achieve one’s goals (Denham 2006).</td>
</tr>
<tr>
<td>Attribution of intent</td>
<td>The cognitive appraisal about another person’s intentions in an ambiguous situation (Crick &amp; Dodge, 1996).</td>
</tr>
<tr>
<td>Empathy and sympathy</td>
<td>Empathy is the ability to experience vicariously similar cognitions and emotions that another individual is experiencing (Eisenberg &amp; Fabes, 1998). Sympathy is the ability to compassionately understand and support the experience of another individual (Eisenberg et al., 1994).</td>
</tr>
<tr>
<td>Prosocial behaviour and minimal aggressive behaviour</td>
<td>Prosocial behaviour can be defined as any action that benefits other people (Eisenberg et al., 2010) including sharing with someone less fortunate than oneself, comforting someone in distress, helping someone achieve an objective, or even simply making others feel good by complimenting them on their appearance or accomplishments. In contrast, behaving aggressively is often referred to as being less socially competent.</td>
</tr>
</tbody>
</table>
2.4 Emotional and Social Competence Classroom-based Programmes

Despite early childhood behavioural problems being predictive of mental health and behavioural problems later in life, the majority of emotional and social competence classroom-based prevention programmes have commenced in high school (Merry et al., 2003) rather than in the earlier and, arguably, more formative pre-primary school.

Good quality peer-reviewed pre-primary school-aged emotional and social competence classroom-based programme evaluations and the most often referenced older child emotional and social competence programmes were located through computer searches using the American Psychological Association’s PsychINFO database. Searches for English-language articles were conducted using a combination of terms, for instance, emotion, social, emotional competence, social competence, pre-primary, preschool, classroom, school, child, children, program, programme, and evaluation. Reference lists in selected articles were also consulted.

2.4.1 Peer-reviewed emotional and social competence classroom-based programmes. Table 2.2 summarises some existing peer-reviewed emotional and social competence programmes in schools that have been developed to address emotional and social competence deficits in schools.
<table>
<thead>
<tr>
<th>Programme</th>
<th>Principal Investigators</th>
<th>Sample</th>
<th>Method</th>
<th>Intervention</th>
<th>Outcomes Measured</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotions Course</td>
<td>Izard, Trentacosta, King &amp; Mostow, 2004.</td>
<td>16 classes. Pre-primary. Low SES.</td>
<td>Experimental and control groups.</td>
<td>22 lessons on 4 primary emotions using puppets,</td>
<td>Emotional knowledge.</td>
<td>Increases in emotional knowledge in 2 of 3 child measures.</td>
</tr>
</tbody>
</table>

(continued)
<table>
<thead>
<tr>
<th>Programme</th>
<th>Principal Investigators</th>
<th>Sample</th>
<th>Method</th>
<th>Intervention</th>
<th>Outcomes Measured</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incredible Years</td>
<td>Webster-Stratton, Reid &amp; Stoomiller, 2008.</td>
<td>1768 students. Experimental</td>
<td>Pre-primary, Low SES.</td>
<td>Delivered by teachers. 30, 40 minute lessons over a year. 7 units: learning school rules; how to be successful in school; emotional literacy, empathy, and perspective taking; interpersonal problem solving; anger management; social skills; communication</td>
<td>Behavioural observations of child and teacher. Direct child assessments with high risk children.</td>
<td>Decrease in aggressive behaviour. Increase in prosocial behaviour in high risk students. Limitations: Direct child assessments only completed with high risk students. No follow-up data.</td>
</tr>
<tr>
<td>Modified Incredible</td>
<td>Baker-Henningham, Powell &amp; Gardner, 2009.</td>
<td>5 pre-primary schools.</td>
<td>Low SES.</td>
<td>Delivered by teachers. 14, 40 minute sessions in a school term. 4 modules: learning the school rules; understanding and</td>
<td>Behavioural observations of child and teacher.</td>
<td>Increases in child appropriate behaviour and teachers were more positive to children. Limitations: No standardised assessments used. No follow-up.</td>
</tr>
<tr>
<td>Programme</td>
<td>Principal Investigators</td>
<td>Sample</td>
<td>Method</td>
<td>Intervention</td>
<td>Outcomes Measured</td>
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<tr>
<td>A Social-Emotional Intervention</td>
<td>Denham &amp; Burton, 1996.</td>
<td>110 students. 4 year olds. Low SES.</td>
<td>Experimental and control groups.</td>
<td>32 lessons delivered by trained teachers. 4 modules: relationship building, understanding and regulating emotions (PATHS), interpersonal cognitive problem solving (I Can</td>
<td>Teacher report of emotional and social skills. Behavioural observation.</td>
<td>Teachers reported increases in social skills. Behavioural observations showed decrease in aggression and increased social skills. Limitations: no follow-up data.</td>
</tr>
</tbody>
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(continued)
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<thead>
<tr>
<th>Programme</th>
<th>Principal Investigators</th>
<th>Sample</th>
<th>Method</th>
<th>Intervention</th>
<th>Outcomes Measured</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peace Builders</td>
<td>Flannery et al., 2003.</td>
<td>4000 students. 8 schools. American kindergarten to year five.</td>
<td>Experimental and control groups</td>
<td>Part of daily routine. Rewards prosocial behaviours and provides strategies to avoid reinforcement of negative behaviour. Staff and children learn 5 rules: 1) praise people, 2) avoid put downs, 3) seek wise people as friends, 4) notice and correct hurts we cause, 5) right wrongs.</td>
<td>Aggressive behaviour, social competence, prosocial behaviour, peace-building.</td>
<td>Teacher ratings showed increases in social competence for children in kindergarten to year 2, reductions in aggressive behaviour in years 3 to 5. Limitations: No follow-up.</td>
</tr>
</tbody>
</table>

(continued)
<table>
<thead>
<tr>
<th>Programme</th>
<th>Principal Investigators</th>
<th>Sample</th>
<th>Method</th>
<th>Intervention</th>
<th>Outcomes Measured</th>
<th>Findings</th>
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</thead>
<tbody>
<tr>
<td>Sheffield Bullying Project</td>
<td>Smith &amp; Sharp, 1994;</td>
<td>American kindergarten to Year 12.</td>
<td>Experimental and control groups.</td>
<td>Delivered by teacher. School policy on Bullying. Training for teachers in supervising lunch breaks. Optional class modules.</td>
<td>Teacher interviews and questionnaires.</td>
<td>Reduction in bullying in primary school; increases of discussing and reporting bullying in high school. Limitations: not all staff were involved. Mixed results at follow up.</td>
</tr>
<tr>
<td>The Good Behaviour Game</td>
<td>van Lier, Muthen,, van der Sar &amp; Crijnen, 2004.</td>
<td>722 students. 13 schools Years 1 and 2. Mean age 6.9 years old.</td>
<td>Experimental and control groups.</td>
<td>Teachers assigned equal numbers of disruptive and non-disruptive children into 2 teams. Children are taught to manage their own and team members’ behaviour using group reinforcement. Each team receives a set of cards. Teachers remove a card when students violate rules. Teams are rewarded at end of a 15–60 minute</td>
<td>Children’s problem behaviours.</td>
<td>Observed significant decreases in children’s behaviour problems. Limitations: Ratings not completed by independent observers. No follow-up.</td>
</tr>
</tbody>
</table>

(continued)
<table>
<thead>
<tr>
<th>Programme</th>
<th>Principal Investigators</th>
<th>Sample</th>
<th>Method</th>
<th>Intervention</th>
<th>Outcomes Measured</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second Step: a Violence Prevention Curriculum</td>
<td>Grossman et al., 1997.</td>
<td>12 schools. 49 classes. American Years 2 and 3.</td>
<td>Teacher ratings, parent ratings, and direct observations of students by trained, blinded observers in 3 settings. Data collected at pre-intervention, 2 weeks post-intervention and 3 month follow-up. Experimental and control groups.</td>
<td>3 modules: empathy training, impulse control, and anger management. 35 minute lessons once or twice weekly for 16–20 weeks. Sessions consisted of a photograph of a social scenario that formed the basis for role-plays discussion and conceptual activities.</td>
<td>Physical aggression, Neutral/prosocial behaviour.</td>
<td>Observed significant decreases in physical aggression. Observed significant increases in neutral/prosocial behaviour. No significant findings by parents or teacher reports. Limitations: 66% participation rate, perhaps findings due to other factors. Observed significant decreases in children’s behaviour problems. A Norweigan Year 5, sample self-Reported</td>
</tr>
<tr>
<td>Programme</td>
<td>Principal Investigators</td>
<td>Sample</td>
<td>Method</td>
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<td>Outcomes Measured</td>
<td>Findings</td>
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<tr>
<td>Making Choices</td>
<td>Smokowski, Fraser, Day,</td>
<td>101 students.</td>
<td>2 classes in experimental and 2 in control</td>
<td>45 minute lessons either once or twice weekly depending on class progress. The programme has 1 emotion unit and 6 SIP units. Techniques used include: group activities, games, stories, role plays.</td>
<td>Social contact, cognitive concentration, social competence, aggression, peer acceptance.</td>
<td>Improvements in social skills (Holsen, Smith &amp; Frey, 2008). However, findings inconsistent across classes and not in Year 6.</td>
</tr>
<tr>
<td></td>
<td>Galinsky &amp; Bacallao, 2004.</td>
<td>101 students.</td>
<td>2 classes in experimental and 2 in control</td>
<td>45 minute lessons either once or twice weekly depending on class progress. The programme has 1 emotion unit and 6 SIP units. Techniques used include: group activities, games, stories, role plays.</td>
<td>Social contact, cognitive concentration, social competence, aggression, peer acceptance.</td>
<td>Teacher reports show children who received intervention had higher scores on social contact, cognitive concentration, establishing prosocial peer acceptance and lower overt aggression. Limitations: Only teacher report, which could be biased as they knew which students were in the intervention. No follow-up data.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year 3.</td>
<td>Mean age 8.5 years.</td>
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<td></td>
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<td>697 students.</td>
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<td>Programme</td>
<td>Principal Investigators</td>
<td>Sample</td>
<td>Method</td>
<td>Intervention</td>
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<tr>
<td>Aussie Optimism</td>
<td>Roberts et al., 2010.</td>
<td>496 students.</td>
<td>3 experimental</td>
<td>12, 90 minute, weekly, 1 hour, weekly, sessions. Self-report: anxiety, depression, attribution, social skills Parent-report: CBCL.</td>
<td>follow-up results inconsistent. No significant self-report results. Parent’s report showed lower internalising problems at post-intervention. No significant results at follow-up. Multiple studies show significant results post-intervention. Limitations: findings inconsistent across studies (Roberts, Kane, Thomson, Bishop &amp; Hart, 2003).</td>
<td></td>
</tr>
<tr>
<td>FRIENDS</td>
<td>Barrett, Farell,</td>
<td>669 students.</td>
<td>Children completed questionnaires with assistance. Experimental and control groups. CBT for Anxiety. 10 sessions delivered by teachers who completed training. Anxiety.</td>
<td>Significant reductions in anxiety post-intervention in both years. Only maintained at 12-month and 24-month follow-up in girls. Limitations: Maintenance only in Year 6 children.</td>
<td>(continued)</td>
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</tr>
<tr>
<td>Programme</td>
<td>Principal Investigators</td>
<td>Sample</td>
<td>Method</td>
<td>Intervention</td>
<td>Outcomes Measured</td>
<td>Findings</td>
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<tr>
<td>Responding in Peaceful and Positive Ways</td>
<td>Farrell, Meyer, Sullivan &amp; Kung, 2003.</td>
<td>239 students. Year 7. Mean age 12.8 years old.</td>
<td>Experimental and control group. 6 month and 12 month follow-ups.</td>
<td>12 weekly sessions delivered by trained specialists. Skills focused: 1) respect others 2) speak clearly 3) listen to yourself 4) value friendship.</td>
<td>Problem behaviour frequency scale, anxiety, knowledge of intervention and attitudes.</td>
<td>Experimental group fewer disciplinary code violations for violent offences. Self-report showed significant findings for some variables post-intervention. No gains were maintained at follow-ups. Problem behaviour frequency showed decreases in physical aggression in boys at 6 month follow-up. Curriculum knowledge test showed boys reported more favourable attitudes towards violence at 6-month follow-up and less favourable attitudes towards violence use at 12-month follow-up. Limitations: It was not clear how many students participated in programme as (continued)</td>
</tr>
<tr>
<td>Programme</td>
<td>Principal Investigators</td>
<td>Sample</td>
<td>Method</td>
<td>Intervention</td>
<td>Outcomes Measured</td>
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<tr>
<td>Positive Youth Development Programme</td>
<td>Caplan et al., 1992.</td>
<td>2 schools. American Years 6 and 7.</td>
<td>Experimental and control groups.</td>
<td>50 minute sessions twice a week for 15 weeks. 6 modules 1) stress management 2) self-esteem 3) problem-solving 4) substances and health information 5) assertiveness 6) social networks</td>
<td>Coping skills, social and emotional adjustment.</td>
<td>Teacher’s reported improvements in coping skills and, social and emotional adjustment. Self-report showed no increase in alcohol consumption compared to control group. Limitations: No follow-up data.</td>
</tr>
</tbody>
</table>
In Table 2.2, ten international peer-reviewed classroom-based pre-primary programmes have been outlined. Of these, the *I Can Problem Solve* programme has considerable support based on replicate trials, but the only post-intervention and follow-up data in African-American pre-primary children is from low SES suburbs (Shure, 2001). It is difficult to compare the programme’s effectiveness to other emotional and social competence programmes because the measures used focused on teacher-rated behavioural characteristics of either ‘adjusted’ or ‘not adjusted’ children. Further research using measures, particularly child measures that are comparable to other programmes, is likely to be beneficial. It was not appropriate to trial *I Can Problem Solve* in Western Australia, due to the use of daily structured 20 minute lessons over six months. Local teachers only supported a programme over one school term (10 weeks) (Cross et al., 2004). The *I Can Problem Solve* programme manual was not available for research purposes to adopt successful strategies for Western Australian children. However, the international research completed on *I Can Problem Solve* has made a significant contribution to the growing field of emotional and social competence programmes with children aged five years, and the development of local programmes could benefit from building on these contributions.

Another well researched programme, *PATHS*, aims at increasing emotional and social competence in school children from pre-primary to year seven (4 to 12 years old) (Bierman et al., 2008; 2010; Domitrovich et al., 2007; Greenberg & Kusché, 1998; Greenberg, Kusché, Cook & Quamma, 1995). However, in a Western Australian application of the *PATHS* programme some of the weaknesses reported by Australian pre-primary teachers included the programme’s rigid structure (related to having to read verbatim from its manual to the class), feelings of disempowerment for the teacher, inappropriate teaching strategies for pre-primary school-aged children, inappropriate
United States-based content and the length of the programme (Cross et al., 2004). Further, while significant outcomes for pre-primary students have been found (Bierman et al., 2008; Domitrovich et al., 2007; Greenberg & Kusché, 1998; Greenberg et al., 1995) the effect sizes were small, and no follow-up tests were completed. Although, there is a wealth of knowledge invested in the development and implementation of PATHS, schools in Western Australia have struggled to appropriately adopt the strategies, although they are reported to have been successfully employed in the United States. Western Australian programmes could benefit from building on the successes of PATHS, but they need to ensure pre-primary programmes are closely related to the Australian pre-primary school curriculum.

Like PATHS, Peace Builders is integrated over the whole school year in the regular daily routine of children from pre-primary to year five (Flannery et al., 2003). While teacher reports supported increases in social competence for pre-primary children, the control school was administered the programme the following year, so follow-up comparisons were not made. Based on the interviews completed with pre-primary teachers in Western Australia, as part of the Cross et al. (2004) study, and the informal discussions with teachers prior to the present study, it was clear that it would be more appropriate for the West Australian pre-primary school curriculum to have an emotional and social competence programme over one school term, rather than over a whole school year.

In another whole-of-year school programme, the Sheffield Bullying Project, direct teaching of emotional and social competence to children is not compulsory. Rather the programme focuses on teachers complying with school-based anti-bullying policies (Smith & Sharp, 1994). Follow-up data showed that two schools which had maintained anti-bullying policies had lower incidents of bullying, one school had no
change in bullying over time while a third school had increased incidents of bullying (Eslea & Smith, 1998). From the theories on children’s development and learning outlined in section 2.3, direct teaching of emotional and social competences is likely to have a greater impact on children’s behaviour than the delivery of an anti-bullying policy.

Basing programmes on sound empirical and theoretical research is likely to ensure increases in emotional and social competence. Webster-Stratton et al. (2008) and Webster-Stratton and Reid (2004) had published trials of the Incredible Years in class-based settings in the United States. Results showed increases in prosocial child behaviour and decreases in aggression. However, assessments were only completed on children considered as ‘high risk’. Although the programme is evidence based, the original Incredible Years programme is a whole-of-year programme so is not suitable for Western Australia schools (Cross et al., 2004). The Modified Incredible Years programme has been trialled in a class-based setting in Jamaica (Baker-Henningham et al., 2009; Webster-Stratton et al., 2008). The original programme was shortened from 30 lessons to 14 lessons to be more appropriate for the Jamaican school curriculum. Post-intervention observations showed improved child behaviour. However, more trials in a class-based setting and longer term follow-up data would provide further evidence for the modified evidence-based programme’s effectiveness for adoption in Australia.

The Me and My Mates programme addresses this concern by having two programme trials and 3 month follow-up analyses.

The following evidence-based programmes are not replicable as programme manuals were not provided. The Emotion Course programme has been trialled in a school-based setting for Head Start children in the United States (Izard et al., 2004). Results demonstrated increases in children’s emotional knowledge, but limitations
included low reliability of measures, only one trial in a school setting and no follow-up data. The *Al’s Pals: Kids Making Healthy Choices* (Lynch et al., 2004) programme has been trialled numerous times, and both parent and teacher reports have indicated increases in emotional and social competence and decreases in behavioural problems. Some of its limitations include no follow-up data and no direct child assessments.

Denham and Burton (1996) developed two new modules and used one module from *PATHS* and one module from *I Can Problem Solve* in their *Social-Emotional Intervention* programme. Teachers reported increases in children’s social skills and direct behavioural observations showed decreases in aggression. The main limitation was that there were no follow-up data. *Strong Start* was trialled with pre-primary school-aged children (Kramer et al., 2010). While both parents and teachers reported increases in children’s prosocial behaviour, there was no control group or follow-up undertaken. The implementation of classroom-based pre-primary emotional and social competence programmes is a growing area of research, but most reported studies do not measure treatment integrity, are not replicable (as programme manuals are not provided) and not are suitable for Western Australian 10 week school terms.

Some older child programmes have been found to have a significant impact on emotional and social competence. For example, The *Penn Resiliency Programme* (Gillham et al., 2007; Reivich, Gillham, Shatte & Seligman, 2007; Seligman et al., 1995) and its replicated Australian counterpart, *Aussie Optimism* (Roberts et al., 2010; Roberts et al., 2003; Rooney et al., 2006) have had positive impacts on those children vulnerable to depression. However, positive findings have not been consistently maintained at follow-up (Merry et al., 2003). The lack of maintained effects could be due to the age and developmental stage of the teenage children in the studies. For example, girls who received the *FRIENDS* programme in year six (10 to 11 years old)
maintained reduced anxiety at the 12 month follow-up, but children who received the FRIENDS programme in school year nine (13 to 14 years old) did not maintain reduced anxiety (Barrett et al., 2006; Lock & Barrett, 2003). The fact that anxiety remained lower only in girls in the year six group gives some support to the notion that interventions are more likely to be effective when children are younger. Based on the literature reviewed for this study, it is arguable that a programme commencing in pre-primary school, when a child is five years old, compared to a programme commencing when a child is between 9 and 13 years old, may have longer lasting benefits and may improve early signs of at-risk behaviours before they escalate into more serious problems.

2.4.2 Non-peer reviewed emotional and social competence classroom-based programmes. Two non-peer reviewed Australian intervention programmes, Fun Friends (Pahl & Barrett, 2007) and the Childhood Aggression Programme (CAP) (Runions, 2008) have attempted to address emotional and social competence in pre-primary children. The Fun Friends programme, developed in Queensland, is specifically a preventative programme for anxiety (Pahl & Barrett, 2007). The CAP programme is currently undergoing trials in Western Australia and is, specifically, a preventative programme for aggression (Runions, 2008). While these programmes promote aspects of emotional and social competence, they are programmes specifically aimed at reducing childhood anxiety and aggression. It could be argued that these interventions are too specific to have a significant preventative impact on all children (Merry et al., 2003). Major criticisms by teachers and the reasons that these programmes are often not adopted in classrooms are that they require significant additional work from teachers and, given that the majority of the class does not exhibit the specific problem targeted by the programmes, the time and effort required by the whole class is
not considered justifiable (Cross et al., 2004; Schwanenflugel et al., 2010). By contrast, a programme targeting emotional and social competence that is beneficial for all children, and a programme that is consistent with the existing state curriculum and which will not demand more work from teachers is arguably more likely to be adopted by schools (Schwanenflugel et al., 2010).
Chapter 3: Me and My Mates: The Development of a Western Australian Emotional and Social Competence Programme for Pre-Primary School Children

Chapter Three reviews social learning techniques that were incorporated into the Me and My Mates programme to accelerate the natural development of each targeted emotional and social competency. For learning to be as generalised as possible, a combination of evidence-based presentation mediums and techniques needs to be used to educate pre-primary children from a variety of perspectives (Smutny & von Fremd, 2010). For example, effective learning can occur through modelling, pictorial illustrations, thinking, games and mutual activities (Smutny & von Fremd, 2010). In this study, techniques were chosen keeping in mind the literature on how five-year-old children learn. These techniques are presented in Table 3.1. The programme manual (see Appendix A) also contains a detailed account of each session.
### Table 3.1

**Competencies and Techniques in Me and My Mates Sessions**

<table>
<thead>
<tr>
<th>Session number and topic</th>
<th>Key competency</th>
<th>Techniques</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Introduction</td>
<td>Understanding emotions in self</td>
<td>Television shows</td>
</tr>
<tr>
<td><strong>Module One: Understanding and managing emotions</strong></td>
<td></td>
<td>Story books</td>
</tr>
<tr>
<td>2 Feeling happy</td>
<td>Emotional expressivity</td>
<td>Flashcards</td>
</tr>
<tr>
<td>3 Feeling sad</td>
<td>Emotional knowledge</td>
<td>Role plays</td>
</tr>
<tr>
<td>4 Feeling angry</td>
<td>Emotional regulation</td>
<td>Blank’s level of questioning</td>
</tr>
<tr>
<td>5 Feeling scared</td>
<td></td>
<td>Exploratory conversations</td>
</tr>
<tr>
<td>6 Feelings revision</td>
<td></td>
<td>Reinforcement</td>
</tr>
<tr>
<td><strong>Module Two: Understanding and managing social interactions</strong></td>
<td></td>
<td>Modelling</td>
</tr>
<tr>
<td>7 Being friendly</td>
<td>Hostile attribution of intent</td>
<td>Coaching</td>
</tr>
<tr>
<td>8 Being kind</td>
<td>Empathy and sympathy</td>
<td>Songs</td>
</tr>
<tr>
<td>9 Showing empathy</td>
<td>Increased prosocial behaviour</td>
<td>Puppets</td>
</tr>
<tr>
<td>10 Attribution of intent and apologising</td>
<td>Decreased aggressive behaviour</td>
<td>Drawing</td>
</tr>
<tr>
<td>11 Social skills revision</td>
<td></td>
<td>Distraction (pleasant activity)</td>
</tr>
<tr>
<td>12 Revision of emotional and social competence and graduation</td>
<td></td>
<td>Breathing and imagery</td>
</tr>
<tr>
<td>13 6-week booster session</td>
<td></td>
<td>Stickers</td>
</tr>
</tbody>
</table>
3.1 Evidence-Based Teaching Techniques

Cognitive processes in five-year-old children can be enhanced through various social learning methods. For example, television shows (Leifer, 1973; Liebert & Sprafkin, 1988), role plays (Johnson, 2001), stories (Senechal, LeFevre, Hudson & Lawson, 1996), flashcards (Eisenberg, 2007; Knell & Dasari, 2009), songs (Robb, 2000), and the planned discussions that follow the use of such tools (Blank, 2006; Blank & White, 1986; Tenenbaum, Alfieri, Brooks & Dunne, 2008) can facilitate children’s understanding of the many alternative viewpoints in ambiguous social and interpersonal situations.

Television has been reported to influence pre-primary school-aged children’s behaviour. At this age, children primarily focus on the concrete behaviours, music and entertainment in television shows. A classic example of this influence can be seen in the experiment involving the television show Sesame Street. The effectiveness of this show in enhancing cognitive skills was examined among 950 three-to five-year-old children in the United States (Liebert & Sprafkin, 1988). Results showed significant improvements in children’s writing and vocabulary skills, illustrating that television viewing can be used to teach skills to young children. In addition, after viewing television shows displaying prosocial behaviour, such as Sesame Street and Mr. Rogers’ Neighbourhood, children exhibited increased levels of prosocial behaviour, particularly when adults encouraged the children to pay close attention to the episodes that emphasised constructive ways of resolving interpersonal conflicts (Hearold, 1986). Other studies have also highlighted the benefit of adults monitoring shows with children and encouraging children to model and practice their prosocial content (Bandura, 1986; Friedrich & Stein, 1973, 1975; Friedrich-Cofer, Huston-Stein, Kipnis, Susan & Clewett, 1979; McGrath, Zook & Weber-Roehl,
Another study showed that children can learn from modelling prosocial behaviour adopted by characters in children’s shows (Leifer, 1973). To teach core competencies, Me and My Mates included approximately five minutes of viewing of television shows, such as *Barney and Friends, Sesame Street, Winnie the Pooh and Friends*, and movies, such as *Dumbo* and *Shrek*. A variety of mediums were used to facilitate increased learning of emotional and social competence (Smutny & von Fremd, 2010).

As illustrated in section 2.1, in low SES Western Australian suburbs there are a high number of refugee children who have English as a second language; therefore, using non-verbal teaching communication is important. An earlier study evaluated the relationship between language skills and outcomes of the *PATHS* programme in 86 Western Australian pre-primary children (Rossi, Fletcher & Harvey, 2008). Children with language difficulties, as measured by the Children’s Communication Checklist (Bishop, 2003), showed greater improvements in behaviour, as measured by the Strengths and Difficulties Questionnaire (Goodman, 1997), than those with age-appropriate skills, even though *PATHS* is heavily language based. In light of these findings that children with language difficulties benefited from *PATHS* and evidence confirming that story books are a powerful educational tool (Senechal et al., 1996), stories were read in each session. Books selected for the emotional competence module included Moroney’s feelings books (for example, *When I am feeling happy*), and books such as *Jamaica’s Blue Marker* by Havill and O’Brien and *The Little Engine That Could* by Piper were included in the social competence module. Non-verbal communication teaching played a key role in these reading activities because the low SES Western Australian suburbs house a high number of refugee children who have English as a second language.
Using flash cards to educate children is another evidence-based learning technique (Eisenberg, 2007; Knell & Dasari, 2009). Flashcards were used to examine whether children grasped key concepts in the programme.

During and after the television shows, story readings and showing of flashcards, Blank’s levels of questioning were used, starting with level one, which comprised concrete questions, through to level four, where children were required to use ToM (Blank, 2006; Blank & White, 1986). Such explanatory conversations, following a television show or a story reading, have been shown to be an effective method of educating children about social concepts and knowledge (Tenenbaum et al., 2008). The facilitator used Blank’s levels of questioning and engaged the children in explanatory conversations about the core concepts to consolidate their learning (for example, questions, from Blank’s level one through four, in the emotional competence module that focused on the emotion ‘happy’ were ‘What is the girl doing? How do you think the girl feels when she is eating ice cream? How do we know the girl is feeling happy? How do we show happy?’). Various evidence-based teaching techniques were used to facilitate increased emotional and social competence.

Regular physical movement has been reported to increase children’s attention spans and facilitate learning (Lengel & Kuczala, 2010). Furthermore, music in therapy has been found to enhance memory and learning (Robb, 2000). In line with these findings, a three-minute song, composed by the researcher, teaching children about the topical emotion and behaviour was sung while dancing or performing appropriate actions. This activity gave children additional opportunities to practice what they had been taught. Emotional expression skills were taught through role-plays with classmates and during feeling songs.
Peers essayed the roles of an adult shop assistant and a friend from class to teach children how to interact and modulate their expressions in various situations as well as with people of different ages. Appropriate facial expressions and body language were modelled, and then encouraged and praised (McMahon & Forehand, 2003; Verduyn et al., 2009). Role plays were undertaken to illustrate the importance of modulating emotions to maintain friendships. For instance, children were told that even if they received a birthday gift that they did not like, they should behave in a socially acceptable way—that is, say ‘Thank you’ and conceal their feelings of disappointment. Role plays, thus, provide opportunities to examine diverse social cues, evoke possible feelings and explore alternative responses. Through these social learning techniques, children can develop a sense of social competence.

CBT techniques using role plays have also been reported to enhance children’s prosocial behaviour (Verduyn et al., 2009). For example, in role plays centred on strategies to manage a bully, children who are faced with a bully may use social skills, such as sharing and befriending the bully, or assertive social skills to stand up to the bully. Skills that are typically exhibited by socially competent individuals include knowledge of appropriate social behaviours; understanding strategies to achieve goals; interpersonal problem solving; friendly behaviour and play; giving and receiving compliments; and maintaining conversations, eye contact, appropriate facial expression and empathy (Scheuermann & Webber, 2002). Previous research has indicated that role playing certain behaviours is an effective strategy for children to learn (Bandura, 1986; Johnson, 2001; McGrath et al., 2003; Verduyn et al., 2009).
Using CBT strategies to modulate intense emotions increases prosocial behaviour and decreases aggressive behaviour (Thompson, 1994; Qu & Zelazo, 2007). Teaching children at this age about cognitions, behaviours and body sensations associated with feeling certain emotions contributes to their being able to appropriately regulate their emotions (Diener & Mangelsdorf, 1999; Mathieson & Banerjee, 2010). For example, consider a situation where a child encounters a Rottweiler dog while playing in the park. The child may feel scared, be aware of his/her rapid heartbeat, might think ‘the dog might bite me’ and then run away from the dog. According to CBT, making such connections between, thoughts, feelings, behaviours and outcomes is paramount to regulating emotions.

CBT skills essential for modulating children’s behavioural responses are self-soothing, breathing exercises, distraction techniques and positive-mood inducing strategies (Thompson, 1994; Qu & Zelazo, 2007). Further, it has been suggested that a positive mood is associated with greater cognitive flexibility and executive functioning (Qu & Zelazo, 2007). Children in conflictual situations who practice an imagery and breathing exercise are more likely to respond prosocially than aggressively (Qu & Zelazo, 2007). In this study, each programme session concluded with the children singing a three-minute-long, chirpy song, ‘Zipa-dee-doo-dah’, and a thirty-second imagery and breathing exercise, developed by the researcher. The purpose of these activities was to teach children that emotions, such as sadness, anger or fear, can be regulated by changing one’s mood and/or relaxing the body and mind.

CBT techniques, such as learning the associations between thoughts, feelings, body sensations and behaviour, has been found to improve children’s understanding of primary emotions (Hemmings, 1995; Manassis, 2009; Verduyn et al., 2009). A CBT-based exercise
called ‘Body Mapping’, which involves children describing how different parts of their bodies feel when they experience each primary emotion, has been found to facilitate these links (Hemmings, 1995). In addition to describing, drawing pictures of themselves can also enhance children’s understanding of their social competencies, and these exercises have been effectively used in individual therapy with pre-primary school-aged children (Hemmings, 1995; Manassis, 2009; Verduyn et al., 2009). As part of the programme, a five-minute drawing task was administered. Prior to drawing, the researcher discussed the activity with all students. In Module One, body mapping was undertaken as part of each session. In each session of Module Two, children drew pictures of themselves depicting the behaviour of the topical social competency. While children were drawing, the class teacher, a volunteer helper, a teacher’s assistant and the researcher asked questions about the content of children’s drawings, in order to facilitate and enhance the link between thoughts, feelings and behaviours (McMahon & Forehand, 2003; Verduyn et al., 2009).

Social problem-solving strategies have been taught using puppets and have been reported to decrease older primary-aged children’s hostile attribution of intent (Keane, Brown & Crenshaw, 1990; Pettit, Dodge & Brown, 1988). In a study conducted over a ten-week period, pre-primary school-aged children practiced social problem-solving abilities in conflict scenarios using puppets (Shure, 1989; Shure & Spivack, 1978). They were then encouraged to discuss the impact of their solutions on the feelings of all parties involved in the conflict. It was found that over time more prosocial responses and less aggressive solutions were articulated (Shure & Spivack, 1978; Shure, 1989). Studies suggest that some five-year-old children find it easier to talk about how a puppet feels rather than about themselves (Currant, 1985; Idisis & Wolf, 2002; Knell & Dasari, 2009; Verduyn et al.,
In an attempt to apply these findings to Me and My Mates, children were asked to make sock puppets, which were used in each session. The children took turns in telling the class how their puppet felt or behaved, in line with the topic of the day. ‘Feelings thermometers’ developed in session one were also used to indicate the range of emotions felt. This activity provided children with the opportunity to practice the skills taught in an enjoyable, age-appropriate manner. The researcher praised the children for exhibiting desired responses, with the intention of increasing the desired behaviour (McMahon & Forehand, 2003).

Behavioural models have been influential in increasing prosocial behaviour. At this stage of learning, it is important to consider Skinner’s operant-learning theory (behaviours that are positively reinforced are more likely to be repeated, whereas behaviours that are punished are less likely to be repeated). Research has shown that five-year-old children increasingly engage in prosocial behaviour when their behaviour is positively reinforced (Kochanska, Gross, Lin & Nichols, 2002; Kochanska & Murray, 2000; McMahon & Forehand, 2003). In contrast, when children engage in aggressive behaviour, it has been found that imposing punishment, such as consistent timeout (placing children in a boring place for several minutes), has been effective in decreasing unacceptable behaviour (McMahon & Forehand, 2003). Hoffman’s (2000) information processing viewpoint specifies that reasons should be given for punishable behaviour and why the transgressor should feel emotions such as guilt. This explanation is more likely to lead to fewer incidents of the undesired behaviour in future situations, as children may internally attribute, (for example, ‘I will feel guilty, if I hurt others’) and then behave in an acceptable way. When children are not given reasons as to why a certain behaviour is being punished,
they may externally attribute, (for example, ‘If I do this, I will get punished’) and may choose to behave acceptably only when authoritative individuals are present. Ignoring inappropriate behaviour that does not cause harm to the child or to other children, such as tantrums, has also been found to decrease the incidents of inappropriate behaviour over time. Behaviours that pose harm to others or to the children themselves can be effectively dealt with by methods such as ‘timeout’ (McMahon & Forehand, 2003). Behaviour management strategies for pre-primary school-aged children have been found to significantly increase desired behaviours and decrease undesired behaviours (McMahon & Forehand, 2003). Furthermore, McMahon and Forehand’s (2003) model has been associated with less psychopathology, particularly, oppositional defiant disorder and antisocial personality.

Throughout the programme, a behavioural model was used to increase desired behaviours and decrease inappropriate behaviour. This model involved positive reinforcement of desired behaviours, particularly prosocial behaviour, which has been found to be strongly linked to increases in prosocial behaviour (McMahon & Forehand, 2003; Kochanska et al., 2002; Kochanska & Murray, 2000). Children received stickers as one form of reinforcement of prosocial behaviours. Children who were questioned by their parents about the stickers possibly received further reinforcement for prosocial behaviour (Porter, 2003). At the end of the programme, children graduating from Me and My Mates received a certificate at a school ‘graduation’ ceremony, which also serve as reinforcers (Porter, 2003) and a reminder of learnt competencies (See Appendix C).

Modelling of empathy and sympathy by adults and peers is one of the various social learning techniques that can enhance the development of empathy and sympathy (Hastings,
Zahn-Waxler, Robinson, Usher & Bridges, 2000). Additionally, discussions preceded by the use of ‘time-out’, to help children understand the harmful effects of any distress they cause others, can increase empathy and sympathy (McMahon & Forehand, 2003). Conversing about the benefits of empathy and sympathy is important in enhancing children’s social competencies as are discussions on the ‘golden rule’: treating others how one would like to be treated. Moreover, discussions on others’ feelings through specific stories, role plays and television shows are likely to elicit feelings of empathy and sympathy (Manassis, 2009; Verduyn et al., 2009). Using the techniques outlined above, empathy and sympathy competencies were taught during the programme sessions. Various social learning techniques were employed to teach the core competencies.

A cognitive social learning technique, known as ‘coaching’, involves an adult displaying a social skill and explaining the rationale for using this skill (Bandura, 1986; Johnson, 2001; McGrath et al., 2003). Research using social skills’ coaching with older primary-aged children has shown both short- and long-term improvements in children’s social skills (Mize & Ladd, 1990; Schneider, 1992). ‘Coaching’ was also used in Me and My Mates; that is, the facilitator displaying each social competency followed it up with a rationale. Children were then encouraged to practice the behaviour themselves. Research has consistently demonstrated that the use of contingent reinforcement, modelling and CBT techniques can lead to the reduction and/or elimination of aggressive behaviour and increased prosocial behaviour in pre-primary school children (for example, McMahon & Forehand, 2003). Hence, Me and My Mates incorporated various evidence-based teaching techniques to increase children’s learning of core emotional and social competencies.
3.2 School Curriculum and Anti-Bullying Policy

The programme content of Me and My Mates was designed to blend in with the existing school curriculum. Influenced by international research (Schwanenflugel et al., 2010) and Western Australian teachers’ requests (Cross et al., 2004), an inherent strength of the programme was that it complemented various areas of the existing Western Australian pre-primary school curriculum. Each programme session followed a similar structure and specific curriculum links as outlined in Appendix B. Therefore, the Western Australian Education Department, the Western Australian Catholic Education Office, schools, teachers and parents were more willing to participate in the programme. Supported curriculum sections included Health and Physical Education, English, Society and the Environment, the Arts and Mathematics. For example, ‘Health and Phys Ed – Interpersonal Skills IS 1’ was supported as programme was expected to teach children the use of basic communication and cooperation skills when interacting with familiar peers and adults. Additionally, the programme was consistent with the Western Australian Education Department’s anti-bullying policy (Department of Education, 1999), as it taught understanding and managing social interactions, involving skills such as prosocial behaviours, empathy, making friends, being kind and apologising.

3.3 Programme Structure

In Western Australia the school year comprises four, ten-week terms. In some pre-primary schools Term One has children attending school for only half the day, so it was not practical to commence the programme in Term One. By Term Two, students attend school full-time. Therefore, it was feasible to implement the programme in either Term Two or Term Three. The duration of the programme was one term and it consisted of 13 sessions.
The first two weeks of the programme comprised four sessions. Subsequent programme sessions were held weekly, and a revision booster session was conducted during the following term.

It was essential to account for activity duration and total session time in programme development. In Western Australian schools there is one-hour of class time between recess and lunch breaks. Thus, the maximum total session time had to be limited to one hour. Types of activities were changed approximately every five minutes. Ten 50- to 60-minute sessions were similarly structured. Three sessions followed a different structure: session one was an introductory session, and sessions 12 and 13 were revision sessions.

Module One focused on emotional competence and understanding and managing emotions. The primary emotions of happy, sad, angry and scared were addressed in detail. Module Two focused on social competence and understanding and managing social interactions. This pertained to competencies, such as making friends, showing empathy towards others, engaging in prosocial behaviours instead of aggressive and unfriendly behaviours and giving others ‘the benefit of the doubt’.

3.4 Programme Co-ordination and Delivery

The programme was designed to be delivered by psychologists or qualified pre-primary class teachers. Numerous trials of the Penn Resiliency programme with upper primary students showed that outcomes were significantly better when the programme was delivered by someone external to the school instead of teachers who were trained to deliver the programme (Seligman et al., 1995). Similarly, the FRIENDS programme reported significant treatment outcomes when it was delivered by psychologists, and not teachers (Barrett & Turner, 2001). Additionally, the current researcher believed that if the
programme was facilitated by the same person, it was more likely that it would be delivered similarly across schools and as per the manual, thereby increasing treatment integrity. Ideally, programme delivery should have been implemented by a psychologist who was independent of the researcher. However, given the scope of a PhD project, financial resources were limited to cater to this. Hence, the programme was primarily facilitated by the researcher, who is a postgraduate clinical psychology student with training in working with children, families and schools and practice in cognitive behaviour therapy. In all classes, qualified school teachers, teachers’ assistants and a volunteer, trained by the researcher, assisted in the programme delivery. The volunteer was university educated and had 30 years’ experience in working with children.

3.5 Selection of Schools

The Australian Early Developmental Index is a population checklist measure completed by teachers on each child’s development across Australia (AEDI, 2008). Ten pre-primary schools in two suburbs in Western Australia, identified by the Australian Early Developmental Index as having students with deficits in emotional maturity and social competence, were identified as suitable for programme implementation. Based on the Australian index all ten pre-primary schools targeted were in low SES suburbs in the Perth metropolitan area (AEDI, 2008). Five schools did not meet the inclusion criteria for this study: four schools had existing emotional and social competence programmes and one school had a split kindergarten and pre-primary class. Of the remaining five schools, only four consented to participate in this study: two were government schools and two were private. One government school and one private school were randomly allocated to the experimental and control groups. The private school in the experimental group had two
classes. All the four schools belonged to two low SES suburbs. The experimental and control groups had one school from each suburb and government and private schools were offset.

3.6 Research Questions

In terms of programme evaluation, the following research questions were examined:

1. Will children who participate in Me and My Mates show significantly greater progress in emotional and social competencies than children who do not?

2. Will children who participate in Me and My Mates show significantly lower rates of emotional and behavioural problems than children who do not?

3. Will a high percentage of children who participate in Me and My Mates continue to use the emotional regulation techniques taught three-months after the programme?

4. Will the improvements made to Me and My Mates in Trial Two lead to significantly greater improvements in children’s emotional and social competence compared to Trial One?
Chapter 4: Programme Evaluation: Trial One

4.1 Method: Trial One

4.1.1 Participants. At the outset, the overall response rate was 85%, yielding a sample of 109, five-year-old pre-primary children. In Western Australia, children are required to commence school if they turn five before 30th June of any given year. There were 75 children (43 girls and 33 boys) in the experimental group (M age: 5.4 years) and 34 children (19 girls and 15 boys) in the control group (M age: 5.6 years).

4.1.2 Measures. Traditionally, the main sources of information on five-year-old children’s emotional and social development have been their parents and teachers (Angold et al., 1987), whose assessments rely solely their interactions with the child and their observations. Data show that children often interact differently in the home and school environments and differently with adults and similar-aged children (Renk & Phares, 2004). A meta-analysis of 74 studies examining cross-informant rating of social competence suggested that obtaining information from children as well as parents and teachers may provide a more comprehensive overview of children’s emotional and social competence (Renk & Phares, 2004). The advantage of the present evaluation of the Me and My Mates programme is that it uses data from children’s performance and the parents’ and teachers’ ratings. Literature on other emotional and social competence programmes indicates that most assessments with five-year-old children rely predominantly on teacher and parent ratings and do not include direct assessments of the children’s competencies. Children’s measures are less vulnerable to bias than the ratings of adult reporters, as children gain the greatest access to the most detailed information about themselves through introspection (Wigelsworth, Humphrey, Kalambouka & Lendrum, 2010).
There are many advantages to having children as the central respondents. With reference to programme evaluation, it is more practical for children to complete assessments rather than their parents or teachers, and some countries (for example, the United Kingdom), have policies and legislation emphasising that children’s perspectives are fundamental as they have access to the most detailed information about themselves (Every Child Matters; DfES, 2003). Some studies have concluded that a child’s report should be the primary source of information and that it is usually sufficient. For example, one study examined teacher, parent and child reports of depressive symptoms by using the Child Behaviour Checklist (Achenbach, 1991) and structured interviews (Reich & Earls, 1987). The researchers concluded that the child’s data constituted the most important and comprehensive source of information. Other studies have found that the information obtained from the child about his or her own emotional and social processes was the most reliable data since the child is the source of data and concluded that the child’s report should be the principal source of information (Reynolds & Graves, 1989; Stark, Reynolds & Kaslow, 1987). The meta-analysis of cross-informant ratings reported that parents and teachers tended to rate a child’s social competence as worse than the child’s own rating (Renk & Phares, 2004). The authors suggested that problem behaviours may be more salient to parents and teachers and are therefore biased. In both the experimental trials of Me and My Mates, children’s measures were used as the main source of data.

There are few reliable and valid measures to assess children’s understanding of their own emotions, emotional expressivity and emotional regulation. Nevertheless, from the
literature reviewed in Chapter 2, it is clear that some emotional and social competence can be reliably and validly measured in five-year-old children.²

4.1.2.1 Emotional knowledge. Emotional knowledge can be measured using Denham’s (1986) puppet task, where children are required to identify the emotion a puppet might experience in eight social situations. Although reliability for Denham’s puppet task has been found to be high, it was not possible to obtain the puppet task for use in the present study. A possible alternative, the Ambivalent Emotions Task, consists of a story-telling interview and has been found to have high reliability (Gordis, Rosen & Grand, 1989). However, the instrument takes 10 minutes to administer and, given that various emotional and social competencies are being assessed, it was considered too long a duration for pre-primary children. The Cartoon Faces measure (Denham, 1986) and Emotion Recognition Questionnaire (ERQ) (Rains, 2003) were selected for use in this study and are described in detail below.

4.1.2.1.1 Cartoon Faces measure. Measures of receptive and expressive emotional knowledge must be determined before all other measures. For this purpose, Cartoon Faces is a simple receptive and expressive emotion-understanding task (Denham, 1986). It is a short, highly reliable (Cronbach’s alpha was high at .89), non-verbal pictorial measure that provides a facial recognition accuracy score.

First, the child is shown four faces of people of his or her own gender and race. The faces display the following feelings: happiness, sadness, anger and fear. The child’s expressive ability is assessed by the examiner pointing to one face at a time and asking the

² For ease of presentation, the reliability of the measures calculated in this research is included.
child, ‘How does she/he feel’? Next, the child’s receptive ability is examined, for example, ‘Show me the face that feels happy’? Children receive 2 points for correct responses, 1 for using negative emotion words for any of the negative responses (for example, responding with ‘angry’ or ‘scared’ for ‘sad’ as the correct answer) and 0 for incorrect responses.

In the current study, Cronbach’s alpha for the Cartoon Faces measure was .77 in the pre-intervention stage, .78 in the post-intervention stage, and .72 at the three-month follow-up. A copy of the task is found in Appendix D.

4.1.2.1.2 Emotion Recognition Questionnaire. The ERQ was developed by Dashiell (1927) and subsequently adapted by Ekman (1976) and Ribordy et al. (1988). Rains (2003) adapted 16 of the 30 vignettes created by Ribordy et al. (1988) for emotion recognition research and therapy. Cronbach’s alpha for the number of correct responses on the ERQ in a group of 387 pre-primary students in the United States was .65 (Rains, 2003). In a PATHS programme evaluation with 356 pre-primary-aged students, the ERQ had a Cronbach’s alpha of .57 and was sensitive to change (Bierman et al., 2008). The ERQ had an illustration of each vignette and a non-verbal response choice appropriate for pre-primary children. Despite its marginal reliability, the ERQ was selected for examining children’s emotional knowledge because it is well researched, sensitive to change, short and appropriate for use with five year olds.

The original ERQ questionnaire consists of 16 items, with four vignettes for each of four emotions, namely, happiness, sadness, anger and fear (Rains, 2003). In the current study, two items were removed. The first ‘sad’ item, ‘Johnny/Susie was the only one in the class not to get a Valentine on Valentine’s Day’, was removed as it was not appropriate in the Australian context for pre-primary children. The second ‘happy’ item, ‘Johnny/Susie
worked hard on a picture and showed it to his/her father. His/her father really liked it and said Johnny/Susie did a good job’, was removed. The picture depicted the child sitting on his/her father’s lap and was not considered appropriate due to the range of possible emotions that could be elicited from some of children in this study who teachers said had experienced sexual abuse trauma. Further, to suit Australian terminology, the wording of two questions was modified. Instead of the child making his or her father an ‘ashtray’, the child made a ‘bowl’. Then, the word ‘sweater’ was changed to ‘jumper’. In the original scoring key, children were given a score of 1 if they selected the correct emotion and a score of 0 if they chose the incorrect emotion. Additionally, calculations were made for subscale scores (happy, sad, angry and scared and a total correct score). In this study, children were given a score of 2 for selecting the correct emotion, a score of 1 if they used negative emotion words for any of the negative responses (for example, responding with ‘angry’ or ‘scared’ when ‘sad’ was the correct answer) and a score of 0 for choosing the incorrect emotion. This ensured that the children scored points for identifying a negative emotion. There were illustrations for each vignette, and the pictures did not depict facial expressions and were race neutral. There were separate pictures for boys and girls. The boy in each picture was coloured blue and the girl, pink. Children were shown a picture, read a story and asked a question: for example, ‘Johnny/Susie wanted his/her friends to come over to play. So, he/she asked them, and they came to play with him/her at his/her house. How did Johnny/Susie feel?’ Next, children were shown happy, sad, angry and scared faces of people of their own gender and race, and they were asked to either point to the correct face when given an emotion or say the name of the emotion while pointing to the face.
For the ERQ in this study, Cronbach’s alpha values indicated a moderate to strong internal reliability in the pre-intervention (.68), post-intervention (.79) and three-month follow-up stages (.77). See Appendix E for a copy of the instrument.

**4.1.2.2 Attribution of intent.** Existing ‘attribution of intent’ questionnaires were considered for inclusion in this study. Dodge and Newman’s (1981) measure was considered too complex for pre-primary children, as it is takes long to evaluate, and each scenario is complex. Instead, Webster-Stratton and Lindsay’s (1999) adapted version of Dodge and Newman’s (1981) measure was considered as it was developed to be appropriate for four-year-old children.

**4.1.2.2.1 Hostile Attribution of Intent.** Webster-Stratton and Lindsay’s (1999) attribution of intent questionnaire was not used in previous reviewed programme evaluations (see section 2.4) and hence no data on sensitivity to change were available. However, as attribution of intent is an important construct to measure, Webster-Stratton and Lindsay’s (1999) adaptation, Hostile Attribution of Intent (HAI), was selected for use in the present study.

The questionnaire had four gender-tailored hypothetical scenarios. In each scenario, a negative act was initiated by another child towards the child. The vignettes, as read to the children, were as follows: (a) being hit in the back by a ball while playing catch, (b) having a favourite toy taken away by another child when the child was not watching, (c) juice being spilled on the child and (d) tripping over another child’s leg while playing (Webster-Stratton & Lindsay, 1999). Children were questioned on whether they thought the action was intentional or accidental (e.g., ‘Did the boy hit you in the back by accident?’ or ‘Did
the boy want to hit you in the back?’). Three of the four stories presented choices of ‘want to’ and ‘by accident’.

In terms of internal consistency, the original questionnaire had a Cronbach’s alpha of .65 (Runions & Keating, 2007). The item with the lowest correlation was the stolen toy scenario, ‘Did the girls steal your truck/doll or did the girl find your truck/doll and not know it was your truck/doll?’, with a corrected item-total correlation of .27. This low correlation could have been due to the difference in wording, i.e. the terms ‘want to’ and ‘by accident’ were missing from the question. Thus, all items except the stolen toy scenario were used in this study. In order to improve the reliability of the measure, the stolen toy scenario was replaced with another vignette: ‘Pretend that you are in the playground. You are eating an ice cream when a girl bumps your arm and the ice cream falls on your shirt and your shirt gets dirty.’ ‘Did the girl want to get you dirty and so she bumped your arm on purpose? Or did the girl bump your arm by accident?’

Cronbach’s alpha of HAI questionnaire in the present study indicated a low internal reliability in the pre-intervention (.45), post-intervention (.45) and three-month follow-up stages (.46). Appendix F shows a copy of the HAI questionnaire.

4.1.2.3 Empathy and sympathy.

4.1.2.3.1 Eisenberg and Bryant Empathy Index. The Eisenberg and Bryant Empathy Index (EBEI) comprises seven items selected from Bryant's scale that were factored together in Eisenberg and Bryant's past research (Eisenberg et al., 1988; Eisenberg et al., 1996) and most clearly assessed concern and empathy for others. Cronbach’s alpha for the scale in their study was .73, and Eisenberg et al. (1996) later labelled the measure the ‘Children's Sympathy Scale’, because of the predominance of sympathy items.
However, it is possible that some of the items from the Bryant questionnaire tapped empathy or personal distress as well as sympathy (Eisenberg et al., 1996). The EBEI was not used in any of the reviewed programme evaluations (see section 2.4), so no data were available on its sensitivity to change. This index was chosen to assess children’s empathy and sympathy because it has good reliability, has been highly researched, is short and is appropriate for use with five-year-old children.

The EBEI has seven items: three sympathy items from Eisenberg, Fabes, Schaller, Carlo and Miller (1991) and four items from Bryant’s (1982) empathy scale (Eisenberg et al., 1996). The sympathy items are, ‘I often feel sorry for people who don’t have the things I have’, ‘When I see someone being picked on, I feel kind of sorry for them’, and ‘I often feel sorry for other children who are sad or are in trouble’. The empathy items are, ‘It makes me sad to see a girl who can’t find anyone to play with’, and ‘I get upset when I see a girl being hurt’. There are analogous items for boys.

In the original EBEI assessment, children are forced to respond with either a ‘yes’ or ‘no’. However, developmental models of comprehension contend that non-verbal and pictorial responses are more appropriate for five-year-old children (Pike, Barnes & Barron, 2010). In this study, the wording of each question was modified to elicit alternative and non-verbal responses, for example, ‘When you see people who don’t have the things you do, how do you feel’? and ‘When you see someone being picked on, how do you feel’? Next, children were shown happy, sad, angry and scared faces of people of their own gender and race, and they were asked to either point to the face or say the emotion of how they would feel in each situation. An example item, ‘When you eat ice-cream, how do you feel’?’ was used before assessment of the scored items in order to ensure that each child
had understood the task. In this study, children were given a score of 2 for selecting ‘sad’, 1 for selecting ‘angry’ and 0 for selecting ‘happy’ or ‘scared’. The total score was calculated later.

In the current study, Cronbach’s alpha for the EBEI indicated a moderate to strong internal reliability in the pre-intervention (.58), post-intervention (.69) and three-month follow-up stages (.80). See Appendix G for a copy of the EBEI questionnaire.

4.1.2.4 Prosocial and aggressive behaviour.

4.1.2.4.1 Challenging Situations Task. The last four stages of SIP theory are goal clarification, response access, response decision and behavioural enactment. It is during stages three to five that a decision is made about how to behave in a situation and then, lastly, the behaviour is enacted. The Challenging Situation Task (CST) was developed by Denham, Bouril, and Belouad (1994) specifically to assess the cognitive-behavioural and affective nature of social problem solving. The CST is based on Dodge et al.’s (2002) finding that emotional knowledge is a predictor of social information processing. It was designed to assess children’s social cognitive perceptions of the affective and behavioural responses they would give in hypothetical peer situations. A challenging situation is described as one that is likely to elicit negative affect and test the limits of the child’s decision-making ability within the peer relationship. Children’s behavioural responses to the tasks are categorised as either prosocial or aggressive. In a PATHS programme evaluation involving 356 pre-primary children, the CST had a moderate Cronbach’s alpha value (.68) and was sensitive to change (Bierman et al., 2008). This interpersonal problem-solving measure was used in the present study as it is short, has illustrated vignettes, has a
non-verbal response format, is sensitive to change and was designed as a direct assessment of children’s prosocial and aggressive behaviours.

The first part of the CST is a baseline measure (Denham, 2006). Emotion cards that depict a child of the same gender and race as the child being questioned are used. The children are asked what their favourite toy is and how they would feel in various situations concerning the toy that elicit the emotions ‘happy’, ‘sad’, ‘angry’ and ‘scared’. If the child gets the emotion incorrect, by, for example, labelling an angry emotion as ‘sad’, he or she is told, ‘Yes, you would feel “sad”. Some children would feel “angry”. Have you ever felt “angry”?'

The CST was designed to assess children’s affective and behavioural responses to four hypothetical peer situations: (1) a peer knocking down a tower of blocks that the child was building, (2) being hit by a peer in the school playground, (3) a peer not letting the child play with him or her and (4) a peer taking the child’s ball when he or she is kicking it (Denham, 2006). The child is given instructions to pretend that he or she is in the situation. Then, the child is shown a picture of the described situation as the story is read to him or her and is asked to respond as though the situation was real. The child is then asked how he or she would feel and is shown four emotion cards (happy, sad, angry, and scared) in different orders for each question. Next, the child is shown four situation cards and asked what he or she would do in each situation.

Responses were coded as either prosocial, aggressive, adult dependent, or avoidant. Prosocial responses included engaging the peer in play and not becoming upset or discussing the problem (e.g. ‘Tell Bobby let’s fix it’). Aggressive responses included hitting, yelling or grabbing (e.g., ‘Hit Bobby or yell at him’). Adult-dependent responses
involved telling the teacher (e.g., ‘Tell the teacher’), and avoidant responses were withdrawing from the interaction (e.g., ‘Find something else to do’). The total number of prosocial and aggressive behavioural responses were calculated across the four situations. The CST measure is shown in Appendix H.

4.1.2.5 Emotional regulation.

4.1.2.5.1 Maintenance of emotional regulation techniques. Literature on existing reliable and valid emotional regulation measures for five-year-old children is scarce. As an exploratory examination of whether children in the experimental group used the emotional regulation techniques taught to them even at the three-month follow-up, some questions were developed for the current study.

At the three-month follow-up, children in the experimental group were asked, ‘Do you still use Fantastic Feeling Fingers’? If children respond with a yes, they were asked, ‘When do you use Fantastic Feeling Fingers’? Children were also asked ‘Do you still sing Zipa-dee-doo-dah’? If the children respond with a yes, they were asked, ‘When do you sing Zipa-dee-doo-dah’? The percentage of yes responses was calculated. The responses are described in Appendix I.

4.1.3 Measurement of parents’ and teachers’ perspectives of children.

4.1.3.1 Teachers as informants. Teachers have the opportunity to observe children’s behaviour in school and compare among children they are teaching. Further, teachers can use their collective experience with other children of a similar age as a reference point when completing ratings and checklists. Some research has found that teachers’ education and experience affected the manner in which they completed questionnaires (Renk & Phares, 2004). For example, Denham (2005) reported that more-
experienced teachers gave children higher ratings in emotional and social competence than less-experienced teachers. The main concern with recruiting teachers for their observations and reports is the burden imposed to complete a set of measures for each child. In Western Australia, the average number of children in a classroom is 28 in government schools and 32 in private schools. One teacher completing a set of measures for 28 or 32 children could lose individual sensitivity in his or her ratings. Teachers also report that the large class size prohibits them from being able to spend one-on-one time with all students (Renk & Phares, 2004). It is therefore important to be careful when extrapolating findings obtained solely from teacher-reported questionnaires and checklists.

4.1.3.2 Parents as informants. An alternative or complementary approach to examining outcomes is to obtain information from parents. The advantages of parents’ reports are that the information on the child’s emotional and social competence comes from a generalised home perspective, and that parents have access to information on their child’s everyday behaviours in the home and community (Renk & Phares, 2004; Wigelsworth et al., 2010). However, parents’ reports can also be disadvantageous as the sole assessment source of data, since they are limited to the parents’ own interactions with the child and their observations in the family context. Data show that children often interact differently in the home and school environments and differently with adults and similar-aged children (Renk & Phares, 2004). Another disadvantage is that parent respondents are difficult to recruit and retain in post-intervention and follow-up measures, which poses a difficulty if they are to be part of a long-term programme evaluation. For example, in the evaluation of a primary group programme, parental response rates were less than 50% of those of teachers or children. Additionally, more parents dropped out at the post-intervention and
follow-up stages compared to teachers or students (Humphrey et al., 2008). Some research also shows that as compared to the children themselves, parents are not always accurate in assessing their children’s emotional states (Reynolds & Graves, 1989; Stark et al., 1987), and parents have varied levels of exposure to how their children may interact with groups of peers (Humphrey et al., 2008).

Both parents’ and teachers’ responses, interpreted with children’s data, may provide a clearer picture of a child’s emotional and social competence. However, these responses are specific to their interactions and observations with the child, as parents and teachers do not have access to the children’s own (covert) thinking and self-talk.

Although children have been found to be more reliable informants regarding their own emotional and social competence, inclusion of both parent and teacher evaluations was decided on in order to yield a more complete, comprehensive analysis. Questionnaires completed by parents and teachers for the purpose of this research needed to be as short as possible. Teachers stated they had limited time to complete questionnaires. Further, since the parents were from culturally and linguistically diverse backgrounds, they required verbal translations by school interpreters. Taking these constraints into consideration, measures assessing children’s behaviour and emotional and social competence were examined for potential use in the current study.

4.1.3.3 Assessing emotional and social competence. An ideal instrument for teachers and parents is one that encapsulates all the competencies taught in the Me and My Mates programme and the specific variables of interest. The Social Skills Rating Scale (SSRS) is high in reliability and validity and has empirical support across cultures and age groups (Gresham & Elliott, 1990). It is a multi-dimensional measure that provides
indicators of children’s cooperation, assertiveness, responsibility, empathy and self-control. It provides a detailed profile of emotional and social skills but is lengthy, taking 20 minutes to complete, which was considered too long for this research. The costs of the SSRS were not feasible for this research. Additionally, it does not cover emotional knowledge, attribution of intention and other competencies taught to children.

Thus, the development of a short questionnaire was deemed most appropriate. Two criteria were important: First, specific questions needed to assess whether the children had learned the competencies the programme had taught them. Second, an overall assessment of the children’s emotional and social competence taking into consideration the components outlined needed to be conducted. Considering these two criteria, nine components were defined: identifying emotions in self, identifying emotions in others, understanding emotions, managing emotions, displaying friendly behaviours, displaying prosocial behaviour, exhibiting empathy, showing attribution of intent and making friends.

4.1.3.3.1 Emotional and Social Skills Questionnaire. The Emotional and Social Skills Questionnaire (ESSQ) was developed for parents and teachers in order to assess the emotional and social competence that children were taught during the programme (see Appendix J). The ESSQ comprises 41 questions across nine categories:

1. Identifying emotions in self. Labels emotions as ‘happy’, ‘sad’, ‘scared’ and ‘angry’ in self (for example, the child says, ‘I’m sad’).

2. Identifying emotions in others. Identifies emotion in others (for example, the child can tell when others are feeling happy, sad, scared or angry).
3. Understanding emotions. Expresses feelings of happiness, sadness, fear and anger appropriately (for example, the child does not hurt someone when he or she is angry).

4. Managing emotions. Seeks comfort when sad, angry or scared (for example, the child asks for a hug).

5. Displaying friendly behaviours. The child listens when someone else is speaking and talks in turn.

6. Displaying prosocial behaviour. The child shares toys or possessions with others.

7. Exhibiting empathy. The child is considerate of other peoples’ feelings.

8. Showing attribution of intent. The child understands that accidents sometimes happen (for example, a ball can accidentally hit the child when he or she is playing a ball game).


The response format was a six-point scale (0 = Unable to judge, 1 = Almost never/Never, 2 = Not often, 3 = Sometimes, 4 = Often, 5 = Almost always/Always).

Cronbach’s alpha values for the ESSQ indicated a strong internal reliability in the pre-intervention (.94 for the parents and .96 for the teachers), post-intervention (.91 for the parents and .95 for the teachers) and three-month follow-up stages (.93 for the parents and .96 for the teachers).

4.1.3.4 Emotional and behavioural problems. The literature reviewed in Chapter 2 demonstrates associations between poor emotional and social competence and behavioural problems in children. Therefore, it was considered relevant to examine whether the
programme had any impact on behavioural problems. Although the Child Behaviour Checklist (Achenbach, 1991) has good reliability and validity, it is too time consuming (completion time = 30 minutes), so the Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997) was selected for use in this study.

4.1.3.4.1 Strengths and Difficulties Questionnaire. The SDQ (Goodman, 1997) is a brief 10-minute behavioural screening questionnaire comprising 25 items, for completion by parents and teachers of four- to 10-year-old children. For the parent-reported SDQ, a large community sample (n = 1359) of young Australian children (aged four to nine years) was used to obtain coefficient alphas for each of five scales (emotional symptoms, conduct problems, hyperactivity, peer relationship problems and prosocial behaviour). The alpha values were .66 for emotional symptoms, .66 for conduct problems, .80 for hyperactivity, .59 for peer relationship problems and .70 for prosocial behaviour (Goodman, 2001). These results indicate moderate to strong internal reliabilities for the scales (Hawes & Dadds, 2004). In addition, test-retest reliability was found to be moderate to high for all scales, and good validity was found in the relationships among the scales (Hawes & Dadds, 2004). Significant differences were found between high- and low-risk children’s groups, indicating that higher scores were associated with a greater probability of a child being assigned a DSM-IV diagnosis of childhood disorders. The pattern of correlation between the SDQ subscales, teacher ratings and clinical diagnostic interview results demonstrated high external validity (Hawes & Dadds, 2004). Data on sensitivity to altered information were not available, as the programme evaluations previously reviewed (see section 2.4) did not use the SDQ. The SDQ was chosen as an appropriate measure because it is short and has high reliability and validity in the Australian context.
The 25 items of the SDQ are divided into five subscales, each of which has five items (see Appendix K):

1. Emotional symptoms. Many worries or often seems worried.
2. Conduct problems. Often has temper tantrums or has a short temper.
4. Peer relationship problems. Has at least one good friend.
5. Prosocial behaviour. Helpful if someone is hurt, upset or feeling ill.

Parents and teachers are required to indicate ‘not true’ (0), ‘somewhat true’ (1) or true (2). Five items are reverse scored. The first four scales are added to generate a Total Difficulties score. The Total Difficulties score is used in analyses.

As can be seen in Table 4.1, for both parent and teacher questionnaires in this study, Cronbach’s alpha values indicated moderate internal reliabilities across the subscales.

Table 4.1

*Cronbach’s Alpha Values for SDQ Scales for Australian Norms (Goodman, 2001), and Parent SDQ and Teacher SDQ in the Pre-Intervention, Post-Intervention and Three-Month Follow-Up Stages*

<table>
<thead>
<tr>
<th></th>
<th>Parents Norms Pre</th>
<th>Post</th>
<th>Follow-up</th>
<th>Teachers Pre</th>
<th>Post</th>
<th>Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Symptoms</td>
<td>.66</td>
<td>.54</td>
<td>.56</td>
<td>.63</td>
<td>.77</td>
<td>.75</td>
</tr>
<tr>
<td>Conduct Problems</td>
<td>.66</td>
<td>.53</td>
<td>.61</td>
<td>.62</td>
<td>.68</td>
<td>.75</td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>.80</td>
<td>.60</td>
<td>.63</td>
<td>.80</td>
<td>.82</td>
<td>.79</td>
</tr>
<tr>
<td>Peer Relationship Problems</td>
<td>.59</td>
<td>.53</td>
<td>.61</td>
<td>.62</td>
<td>.51</td>
<td>.38</td>
</tr>
<tr>
<td>Prosocial Behaviour</td>
<td>.70</td>
<td>.68</td>
<td>.65</td>
<td>.63</td>
<td>.84</td>
<td>.71</td>
</tr>
</tbody>
</table>
4.1.3.5 Teacher and Parent Feedback. The pre-test teacher ESSQ included a baseline question asking whether the child had an illness or disability and if the child was performing significantly below expected in any learning area.

In the experimental group, both the parent and teacher post-test questionnaires and the follow-up questionnaires had four additional questions: ‘Has the Me and My Mates programme reduced problems’?, ‘Has the Me and My Mates programme helped in other ways, e.g. making the problems more bearable’?, ‘Since the Me and My Mates programme, have your child’s emotional skills improved, e.g., understanding feelings or talking about feelings’? and ‘Since the Me and My Mates programme, have your child’s social skills improved, e.g., plays nicely with other children or shows consideration of other children’s feelings’? Teacher and parent feedback was recorded as supplementary to quantitative results.

4.1.4 Procedure. Approval to conduct this study was obtained from Murdoch University Human Research Ethics Committee, Western Australian Department of Education and Training and the Western Australian Catholic Education Office, Western Australia.

4.1.4.1 Schools. Of the five schools invited, four agreed to participate (see Appendices L and M for a copy of the school information sheet and consent form). Consenting principals and teachers were informed about the scales and questionnaires to be completed by teachers, parents and children at three testing periods: before the programme, immediately after the programme and three months after programme completion. Schools in the control group were offered the programme for the following year’s pre-primary students (Evaluation Trial Two).
4.1.4.2 Children. Teachers gave all children in their classes an information sheet and consent forms to take home for their parents to sign (see Appendices N and O). Children were required to be advised by their parents and the researcher about the study (see Appendix P). Children also completed a participation consent form (See Appendix Q). Data were collected only from children whose parents had consented and who themselves had signed consent forms. Testing took place in a school room other than the classroom on a one-to-one basis with the researcher. All children in the experimental classrooms received the classroom programme, as all consenting authorities believed that the programme supported the regular pre-primary curriculum.

4.1.4.3 Teachers. Teachers completed the questionnaires before programme commencement, immediately after programme completion and three months after the last programme session. Although they were given two weeks to complete the questionnaire for each participating child, all teachers completed the questionnaires in one day in each of the three testing periods. The order effects of the questionnaires were corrected for by counterbalancing the order of administration of the questionnaires between teachers and across times of measurement (Martin, 1985).

4.1.4.4 Parents. The researcher delivered a presentation to parents about the research in the four participating schools. Parents were informed about the completion of assessments in the three testing periods: immediately after the presentation, immediately after the last programme session and three months after the last programme session. The same parent for each child completed the questionnaires in each testing period.

As the parents were from culturally and linguistically diverse backgrounds, the schools provided an interpreter who spoke various African languages and Arabic to assist
some parents in completing the questionnaires. The interpreter assisted some parents individually and others in small groups of three, interpreting one question at a time. Order effects were not corrected for when parents completed the questionnaires with the help of the interpreter. However, the order of administration of the remainder of the questionnaires was counterbalanced between parents and across times of measurement (Martin, 1985). The researcher and classroom teacher were present during the testing periods to answer any questions. In each of the three testing periods, some parents took the questionnaires home to complete.

4.1.4.5 Programme. The programme content is described in Chapter 3, and the programme manual is given in Appendix A. The 13-session programme was primarily coordinated and carried out by the researcher. Qualified school teachers, teachers’ assistants and a volunteer trained by the researcher assisted in programme delivery in all classes. Training consisted of an initial one-hour meeting in which the structure of each session and the purpose of each activity were discussed with each party. Verbal and written instructions were communicated to the volunteer assistant by the researcher before the commencement of each session. Table 4.2 shows the structure of 10, 60-minute sessions delivered in Western Australian School Term Three. Three sessions followed a different structure, as session 1 was an introductory session and sessions 12 and 13 were revision sessions (see Appendix A).
Table 4.2

*Structure of Whole-of-Class 60-minute Sessions in Trial One*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Duration (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Television show</td>
<td>5</td>
</tr>
<tr>
<td>Explanatory conversation</td>
<td>5</td>
</tr>
<tr>
<td>Story book reading</td>
<td>5</td>
</tr>
<tr>
<td>Explanatory conversation</td>
<td>5</td>
</tr>
<tr>
<td>Role plays</td>
<td>10</td>
</tr>
<tr>
<td>Singing and dancing</td>
<td>3</td>
</tr>
<tr>
<td>Puppet role plays</td>
<td>10</td>
</tr>
<tr>
<td>Flashcard displays</td>
<td>5</td>
</tr>
<tr>
<td>Drawings</td>
<td>5</td>
</tr>
<tr>
<td>Singing a happy song</td>
<td>3</td>
</tr>
<tr>
<td>Imagery and breathing</td>
<td>1</td>
</tr>
<tr>
<td>Using stickers</td>
<td>1</td>
</tr>
</tbody>
</table>

4.1.5 *Programme integrity.* Programme integrity was maintained, as each session’s content was uniform and was delivered following the programme manual by the researcher. After each programme session, the volunteer assistant was evaluated for following instructions during 10 minutes of supervision by the researcher. Supervision constituted discussing whether instructions were followed and providing support for any difficulties faced in following instructions.

4.1.6 *Attendance and retention rates.* The Me and My Mates programme was concurrently administered to three pre-primary classes in two schools. The combined attendance rates for the 13 sessions were high, with 54 students attending all 13 sessions (72%) and 75 students attending six or more sessions (100%). The average number of sessions attended was 11. The main reason for absence from class was illness.

Table 4.3 shows the percentage of total assessments completed by the experimental and control groups, their parents and their teachers in the pre-intervention, post-intervention and at three-month follow-up stages.
Table 4.3

*Percentage of Assessments Completed by Each Group in the Pre-Intervention, Post-Intervention and Three-Month Follow-Up Stages*

<table>
<thead>
<tr>
<th></th>
<th>Experimental Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre</td>
<td>Post</td>
</tr>
<tr>
<td>Children</td>
<td>100</td>
<td>99</td>
</tr>
<tr>
<td>Parents</td>
<td>100</td>
<td>74</td>
</tr>
<tr>
<td>Teachers</td>
<td>100</td>
<td>99</td>
</tr>
</tbody>
</table>

One child in the experimental group was not fluent in English and was unable to complete the pre-intervention EBEI and ERQ tests. Therefore, this child was excluded from the EBEI and ERQ analysis. In the control group, one child was excluded from repeated measures analysis of variance (ANOVA) analysis, because he was overseas during the post-intervention testing. One child in the experimental group left the school and was excluded from the post-intervention and follow-up analyses.

4.1.7 **Power analysis.** For an 80% probability of detecting a large difference between population means with a two-group ANOVA, at an alpha level of .05, 26 participants are required in each group (Cohen, 1992). Hence, the probability of detecting large effects in this study was high.

4.2 **Results: Trial One**

4.2.1 **Statistical analyses.** Trial One of the Me and My Mates programme compared students in the experimental group across time and to a control group. The dependent variables were emotional knowledge, emotional regulation, attribution of intent, sympathy and empathy, prosocial behaviour, aggressive behaviour, emotional and social
competence and emotional and behavioural problems. Following data screening, preliminary analyses comprising a series of one-way ANOVAs and independent samples t-tests were undertaken to test for pre-existing differences between the experimental and control students. To assess whether the programme had a significant impact on the targeted variables in children over time and to compare the experimental group to the control group, repeated measures ANOVAs were also undertaken.

For the CST measure assessing prosocial and aggressive behaviours, a repeated measures multivariate analysis of variance (MANOVA) was conducted. For all other measures, a series of repeated measures ANOVAs was conducted, with the treatment condition as a between-participants factor and time as the repeated factor. Time and Time × Group interactions were explored by testing linear and quadratic trends for improvements in the intervention group over time, and they were compared to the control group. Post hoc analyses comprised paired samples t-tests for within-condition comparisons to examine whether improvements in emotional and social competence were significantly different in each testing period. Independent t-tests were conducted for between-condition comparisons to examine if improvements in emotional and social competence were significantly different between the experimental and control groups in each testing period. Bonferroni corrections were utilised with all t-tests (Cohen, Cohen, West & Aiken, 2003). Where the homogeneity of variance assumption was violated, the alpha level was increased from .05 to .01. Data were analysed using Statistical Package for the Social Sciences (SPSS) 17.

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3 No significant gender differences existed in this research, so separate analyses are not reported.
4.2.2 Data screening. The data were screened for univariate and multivariate outliers with the experimental and control groups as separate samples in each of the three testing periods for each of the eight outcome measures from ERQ, HAI, EBEI, CST, teacher SDQ, parent SDQ, teacher ESSQ and parent ESSQ. Examination of means, histograms and box plots revealed two univariate outliers that did not fulfil the criterion, which was set at 3.5 SDs from the overall mean. However, on closer inspection of the data, these scores were found to be consistent among teacher, parent and child measures and reflected the level of functioning of the child. These data, therefore, were retained for the final analyses.

Eleven participants had missing data points for one of the 66 items in the parent and teacher questionnaires in one of the three time periods. The participants’ mean for the subscale with the missing data was substituted for these participants, as suggested by Cohen et al. (2003).

4.2.3 Assumption testing for ANOVA. Before the analyses, the data were examined for accuracy of entry. Several checks were performed to determine whether the data violated any of the ANOVA assumptions of normality, homogeneity of variance or sphericity. For the sample as a whole, the distributions of the outcome measures were tested for normality at the pre-intervention, post-intervention, and three-month follow-up stages. Box plots, histograms and Shapiro-Wilk statistics were used to indicate whether the assumption of normality was supported. Where the homogeneity of variance assumption was violated, the alpha level was increased from .05 to .01. Mauchly’s test indicated whether the assumption of sphericity was violated. As noted by Tabachnick and Fidell (2007), if sphericity was violated, Huynh-Feldt epsilon was used, and a lower bound
estimate of $\eta^2$, $\eta^2_L$, was calculated. Partial eta-squared $\eta^2$ or $\eta^2_L$ was used to measure effect sizes. According to Cohen (1988), a small effect is $\eta^2 = .01$, medium effect is $\eta^2 = .09$, and a large effect is $\eta^2 = .25$.

4.2.4 Preliminary analyses. Pre-intervention differences between the experimental (classes 1, 2 and 3) and control (classes 4 and 5) groups were assessed by independent samples $t$-tests and one-way ANOVAs. Table 4.4 shows the means and standard deviations for each class and measure. According to the children’s responses, the children in class 4 were significantly less prosocial than those in class 3 ($F (4,105) = 3.11, p = .022$). The latter had significantly lower HAI scores than those in class 5 ($F (4,104) = 5.64, p < .001$). More importantly, however, no significant differences were found when the classes were randomly grouped into the experimental and control groups and compared.
**Table 4.4**

*Class Means and Standard Deviations (in Parentheses)*

<table>
<thead>
<tr>
<th>Measures</th>
<th>Class 1</th>
<th>Class 2</th>
<th>Class 3</th>
<th>Class 4</th>
<th>Class 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERQ</td>
<td>20.96 (4.43)</td>
<td>20.54 (4.92)</td>
<td>23.17 (2.35)</td>
<td>20.61 (4.19)</td>
<td>20.69 (4.44)</td>
</tr>
<tr>
<td>HAI</td>
<td>1.04 (0.94)</td>
<td>1.81 (1.08)</td>
<td>1.48 (1.20)**</td>
<td>1.83 (0.99)</td>
<td>2.56 (0.96)**</td>
</tr>
<tr>
<td>EBEI</td>
<td>3.69 (1.76)</td>
<td>3.08 (1.81)</td>
<td>3.91 (1.78)</td>
<td>3.00 (2.20)</td>
<td>3.19 (1.76)</td>
</tr>
<tr>
<td>CST: Prosocial</td>
<td>1.54 (1.03)</td>
<td>1.19 (1.27)</td>
<td>2.00 (1.08)*</td>
<td>0.89 (0.96)*</td>
<td>1.25 (1.07)</td>
</tr>
<tr>
<td>CST: Aggression</td>
<td>0.50 (0.65)</td>
<td>0.48 (0.75)</td>
<td>0.22 (0.52)</td>
<td>0.78 (0.88)</td>
<td>0.44 (0.81)</td>
</tr>
<tr>
<td>ESSQ: Teacher</td>
<td>151.19 (20.67)</td>
<td>152.00 (29.79)</td>
<td>150.52 (17.09)</td>
<td>147.28 (16.47)</td>
<td>150.75 (14.98)</td>
</tr>
<tr>
<td>ESSQ: Parent</td>
<td>173.39 (18.36)</td>
<td>152.00 (29.79)</td>
<td>174.19 (22.44)</td>
<td>162.00 (17.58)</td>
<td>164.80 (36.83)</td>
</tr>
<tr>
<td>SDQ: Teacher</td>
<td>12.65 (5.73)</td>
<td>12.48 (5.69)</td>
<td>6.13 (6.14)</td>
<td>6.06 (4.30)</td>
<td>9.75 (5.53)</td>
</tr>
<tr>
<td>SDQ: Parent</td>
<td>8.64 (4.27)</td>
<td>10.54 (5.33)</td>
<td>6.76 (3.87)</td>
<td>7.27 (2.37)</td>
<td>7.70 (5.60)</td>
</tr>
</tbody>
</table>

*Note.* *p*<.05; **p**<.001. ERQ = Emotion Recognition Questionnaire, HAI = Hostile Attribution of Intent Questionnaire, EBEI = Eisenberg and Bryant’s Empathy Index, CST = Challenging Situation Task, ESSQ = Emotional and Social Skills Questionnaire, SDQ = Strengths and Difficulties Questionnaire
4.3 Trial One: Experimental and Control Groups

4.3.1 Emotional knowledge.

4.3.1.1 Emotion Recognition Questionnaire. A 2 (group) × 3 (time) repeated measures ANOVA was conducted for the ERQ scores (see Figure 4.1). A significant main effect of group was noted ($F(1, 105) = 37.80, p < .001, \eta_p^2 = .27$) with the experimental group scoring higher than the control group. Independent samples t-tests were used to compare the experimental group with the control group at each time point, and the results revealed that the participants in the experimental group scored significantly higher on the ERQ than those in the control group at post-intervention ($t(38.28) = 7.09, p < .001$) and three-month follow-up ($t(38.88) = 6.47, p < .001$) stages. A significant main effect of time ($F(1.45, 152.28) = 70.34, p < .001, \eta_T^2 = .22$), a significant linear trend of time ($F(1, 105) = 103.70, p < .001, \eta_T^2 = .50$) and a significant quadratic trend of time ($F(1, 105) = 8.35, p = .005, \eta_T^2 = .07$) were found. The ERQ scores increased steeply between the pre-intervention and post-intervention stages and gradually between the post-intervention and three-month follow-up stages.

A significant Time × Group interaction was observed ($F(1.45, 152.28) = 18.43, p < .001, \eta_{T \times G}^2 = .07$), indicating that the change in ERQ scores over time depended on the group. A significant Time × Group linear trend ($F(1, 105) = 15.76, p < .001, \eta_{T \times G}^2 = .13$) and a significant Time × Group quadratic trend ($F(1, 105) = 23.37, p < .001, \eta_{T \times G}^2 = .18$) were also found. The ERQ scores increased more steeply between the pre-intervention and post-intervention stages in the experimental group than in the control group. In the experimental group, the ERQ scores gradually increased between the post-intervention and three-month
follow-up stages, and the difference was statistically significant \((t (74) = -4.33, p < .001)\). In the control group, the scores increased at a slightly steeper rate between these stages, and the difference was again statistically significant \((t (32) = -3.89, p < .001)\). Post hoc analyses using paired \(t\)-tests revealed that emotional knowledge increased significantly between the pre- and post-intervention stages in the experimental group \((t (73) = -10.15, p < .001)\) but not the control group \((t (32) = -1.26, p = .216)\).

![Graph](image)

**Figure 4.1.** Mean Emotion Recognition Questionnaire scores at pre-intervention, post-intervention and three-month follow-up stages.

### 4.3.2 Attribution of intent.

#### 4.3.2.1 Hostile Attribution of Intent Questionnaire.

A 2 (group) × 3 (time) repeated measures ANOVA was conducted for the HAI scores (see Figure 4.2). A
significant main effect of group \( (F(1, 105) = 402.84, p < .001, \eta_p^2 = .79) \) was found, with the experimental group scoring lower than the control group. Independent samples \( t \)-test analysis revealed that the participants in the experimental group had significantly lower HAI scores than those in the control group in the post-intervention \( (t(106) = -2.64, p < .001) \) and three-month follow-up \( (t(48.36) = -5.95, p < .001) \) stages. A significant main effect of time \( (F(1, 210) = 13.00, p < .001, \eta_p^2 = .11) \) and a significant linear trend of time \( (F(1, 105) = 24.96, p < .001, \eta_p^2 = .19) \) were observed. The HAI scores were found to decrease significantly over time.

There was a significant Time × Group interaction \( (F(2, 210) = 3.09, p = .048, \eta_p^2 = .03) \), indicating that the changes in the HAI scores over time depended on the group. Time × Group linear and quadratic trends were not significant. HAI scores decreased more in the experimental group than in the control group. Post hoc analyses using paired \( t \)-tests revealed that the difference in HAI scores between the pre- and post-intervention stages was significant in the experimental group \( (t(73) = 2.14, p = .036) \) but not in the control group \( (t(32) = 1.81, p = .08) \). In the experimental group, a significant difference was found in the HAI scores between the post-intervention and three-month follow-up stages \( (t(74) = 3.99, p < .001) \), whereas in the control group, the HAI scores were not significantly different between these stages \( (t(32) = .00, p = 1.00) \).
Figure 4.2. Mean Hostile Attribution of Intent scores at pre-intervention, post-intervention and three-month follow-up stages.

4.3.3 Empathy and sympathy.

4.3.3.1 Eisenberg and Bryant’s Empathy Index. A 2 (group) × 3 (time) repeated measures ANOVA was conducted for the EBEI scores (see Figure 4.3). A significant main effect of group was found \( F(1, 104) = 1118.49, p < .001, \eta_p^2 = .92 \), with the experimental group scoring higher than the control group. Post hoc independent t-tests revealed that the participants in the experimental group had significantly higher EBEI scores than those in the control group at both the post-intervention \( t(106) = 5.36, p < .001 \) and three-month follow-up \( t(39.04) = 6.48, p < .001 \) stages. A significant main effect of time \( F(2, 208) = 37.54, p < .001, \eta_p^2 = .27 \) and a significant linear trend of time \( F(1, 104) = 79.35, p \)
<.001, $\eta_p^2 = .43$) were noted, indicating that the EBEI scores increased significantly over time.

There was a significant Time × Group interaction ($F (2, 208) = 15.13, p < .001, \eta_p^2 = .13$), indicating that the rate of change in the EBEI scores depended on the group. Tests of within-subject contrasts showed that the Time × Group interaction had a significant linear relationship ($F (1, 104) = 30.43, p < .001, \eta_p^2 = .23$). The EBEI scores increased more in the experimental group than in the control group. Post hoc analyses using paired $t$-tests revealed that the increase in the EBEI scores between the pre- and post-intervention stages was significant in the experimental group ($t (73) = -7.02, p < .001$) but not the control group ($t (32) = -0.58, p = .57$). Additionally, the EBEI scores increase significantly between the post-intervention and three-month follow-up stages in the experimental group ($t (73) = -5.89, p < .001$) but not the control group ($t (32) = -1.20, p = .240$).
4.3.4 Prosocial and aggressive behaviour.

4.3.4.1 Challenging situation task. Before the repeated measures MANOVA, the data were examined using SPSS to ensure that all of the underlying assumptions were met. Univariate normality was examined with the Shapiro-Wilks tests, and box plots and could be assumed. Additionally, no multivariate outliers were found in the data, supporting the assumption of multivariate normality, and the relationships between the dependent variables were roughly linear. Box’s $M$ was non-significant, indicating that the homogeneity of variance-covariance matrices could be assumed. As the independent variable had only two levels, all four F-values (Pillai’s Trace, Wilks’ Lambda, Hotelling’s Trace and Roy’s Largest Root) were the same. As all the underlying assumptions were
supported, a 2 (group) × 3 (time) repeated-measures MANOVA was performed for all
dependent variables in the CST, with the three-level ‘time’ component nested within
subjects. Multivariate tests of between-subjects group \( F(4, 103) = 25.53, p < .001, \eta^2_p = .50 \),
within-subjects time \( F(8, 99) = 10.04, p < .001, \eta^2_p = .45 \) and within-subjects Time
× Group \( F(8, 99) = 6.51, p < .001, \eta^2_p = .35 \) all yielded significant results, indicating that
a series of follow-up univariate repeated measures ANOVAs could be performed on the
prosocial and aggression scores.

A 2 (group) × 3 (time) repeated measures ANOVA was conducted on the prosocial
scores. A significant main effect of group \( F(1, 106) = 606.44, p < .001, \eta^2_p = .85 \) was
found, with the experimental group scoring higher than the control group. The independent
samples t-tests revealed that the participants in the experimental group had significantly
higher prosocial scores than those in the control group in the post-intervention \( t(106) =
5.36, p < .001 \) and three-month follow-up \( t(77.42) = 6.48, p < .001 \) stages. A significant
main effect of time \( F(2, 212) = 28.34, p < .001, \eta^2_p = .21 \) and a significant linear trend of
time \( F(1, 106) = 48.24, p < .001, \eta^2_p = .31 \) were observed, indicating that the prosocial
scores increased significantly over time.

A significant Time × Group interaction \( F(2, 212) = 19.69, p < .001, \eta^2_p = .16 \) was
noted, indicating that the change in the prosocial scores over time depended on the group.
The Time × Group interaction displayed a significant linear trend \( F(1, 106) = 23.67, 
p < .001, \eta^2_p = .18 \) and a significant quadratic trend \( F(1, 106) = 14.37, p < .001, \eta^2_p = .12 \). A
steeper increase in the prosocial scores between pre- and post-intervention stages was found
in the experimental group compared to the control group. The rate of increase between the
post-intervention and three-month follow-up stages was low in the experimental group and
slightly greater in the control group (see Figure 4.4). Post hoc analyses using paired $t$-tests showed that in the experimental group, the prosocial scores increase significantly between the pre- and post-intervention stages ($t(73) = -7.02, p < .001$) and between the post-intervention and three-month follow-up stages ($t(73) = -5.90, p < .001$). However, the changes in the prosocial scores in the control group were not significant between the pre- and post-intervention stage ($t(32) = -0.58, p = .569$), nor between the post-intervention and follow-up stages ($t(32) = -1.20, p = .240$).

![Figure 4.4](image.png)

*Figure 4.4. Mean Prosocial Scores at pre-intervention, post-intervention and three-month follow-up stages.*

A 2 (group) $\times$ 3 (time) repeated measures ANOVA was conducted for the aggression scores. A significant main effect of group was found ($F(1, 106) = 80.62, p < .001, \eta^2_p = .43$), with the experimental group scoring lower than the control group.
Independent samples $t$-tests revealed that participants in the experimental group had significantly lower aggression scores than those in the control group at both the post-intervention ($t (40.98) = -4.20, p < .001$) and three-month follow-up stages ($t (33.50) = -3.16, p = .003$). A significant main effect of time ($F (2, 212) = 8.26, p < .001, \eta_p^2 = .07$), a significant linear trend of time ($F (1, 106) = 7.83, p = .006, \eta_p^2 = .07$) and a significant quadratic effect of time ($F (1, 106) = 8.84, p = .004, \eta_p^2 = .08$) were observed. The aggression scores changed significantly over time.

A significant Time × Group interaction ($F (2, 212) = 6.60, p = .002, \eta_p^2 = .06$) was noted, indicating that the pattern of change depended on the group. The Time × Group interaction displayed a significant quadratic trend ($F (1, 106) = 11.48, p = .001, \eta_p^2 = .10$). The aggression scores decreased linearly in the experimental group between the pre- and post-intervention stages and continued to decrease linearly between the post-intervention and three-month follow-up stages. However, in the control group, the aggression scores peaked in the post-intervention stage and then decreased in the three-month follow-up stage (see Figure 4.5). Post hoc analyses using paired samples $t$-tests showed that the aggression scores in the experimental group decreased significantly between the pre- and post-intervention stages ($t (74) = 2.63, p = .01$) and continued to significantly decrease between the post-intervention and three-month follow-up stages ($t (74) = 2.71, p = .008$). However, in the control group, the aggression scores increased significantly between the pre- and post-intervention stages ($t (32) = -2.81, p = .008$) and then decreased significantly in the three-month follow-up stage ($t (32) = 2.46, p = .020$).
Figure 4.5. Mean Aggression Scores at pre-intervention, post-intervention and three-month follow-up stages.

### 4.3.5 Teacher and parent reports of emotional and social competence.

#### 4.3.5.1 Emotional and Social Skills Questionnaire. A 2 (group) × 3 (time) repeated measures ANOVA was conducted for the ESSQ ratings given by the teachers. A significant main effect of group ($F(1,106) = 6526.43, p < .001, \eta^2_p = .98$) was found. Independent samples $t$-test analyses revealed that the participants in the experimental group had significantly lower ESSQ ratings than those in the control group in the post-intervention stage ($t(106) = -2.94, p = .004$), and they had significantly higher ESSQ ratings in the three-month follow-up stage ($t(107) = 3.09, p = .003$). A significant main effect of time ($F(1.88, 198.71) = 16.57, p < .001, \eta^2_L = .06$) and a significant linear trend of time ($F(1,106)$
= 24.12, \( p < .001, \eta^2_p = .19 \) were found, indicating that the ESSQ ratings changed significantly over time.

A significant Time × Group interaction (\( F(1.88, 198.71) = 17.31, p < .001, \eta^2_L = .067 \)) was observed, indicating that the rate of change in the ESSQ ratings depended on the group. A significant Time × Group linear trend (\( F(1,106) = 14.49, p < .001, \eta^2_p = .12 \)) and a significant Time × Group quadratic trend (\( F(1,106) = 22.56, p < .001, \eta^2_p = .18 \)) were also observed. Between the pre- and post-intervention stages, the ESSQ ratings remained fairly stable in the experimental group whereas those in the control group increased slightly. The ESSQ ratings increased at a steeper rate between the post-intervention and three-month follow-up stages in the experimental group than in the control group. In the control group, the ESSQ ratings decreased slightly between the pre-intervention and three-month follow-up stages. Post hoc analyses using paired \( t \)-tests revealed that in the experimental group, the ESSQ ratings were not significantly different between the pre- and post-intervention stages (\( t(73) = −.32, p = .749 \)), but they significantly increased between the post-intervention and three-month follow-up stages (\( t(73) = −8.63, p < .001 \)). However, in the control group, the ESSQ ratings increased significantly between the pre- and post-intervention stages (\( t(33) = −2.52, p = .017 \)), but the decrease was not significant between the post-intervention and three-month follow-up stages (\( t(33) = 1.61, p = .116 \)) (see Figure 4.6).
A 2 (group) × 3 (time) repeated measures ANOVA was conducted for parent’s ESSQ ratings of their child. A significant main effect of group ($F(1, 46) = 2527.30, p < .001, \eta^2_p = .98$) was noted, with the experimental group scoring higher on the ESSQ. Independent samples $t$-tests revealed no significant difference in the ESSQ ratings between the participants in the experimental and control groups in the post-intervention stage ($t(65) = 1.13, p = .26$), but the experimental group had significantly higher ESSQ ratings in the three-month follow-up stage ($t(60) = 2.58, p = .012$). The effect of time was not significant ($F(1.85, 84.95) = .34, p = .696, \eta^2_p = .001$). The Time × Group interaction was also not significant ($F(1.85, 84.95) = 1.14, p = .321, \eta^2_p = .005$) (see Figure 4.7).

**Figure 4.6.** Mean Emotional and Social Skills Questionnaire teachers’ ratings at pre-intervention, post-intervention and three-month follow-up stages.
**4.3.6 Emotional and behavioural problems.**

**4.3.6.1 Strengths and Difficulties Questionnaire.** A 2 (group) × 3 (time) repeated measures ANOVA was conducted for the teachers’ SDQ ratings. A main effect of group ($F(1, 105) = 276.58, p < .001, \eta^2_p = .73$) was noted, with the experimental group scoring higher than the control group. Independent samples $t$-tests revealed that the participants in the experimental group had significantly higher SDQ ratings than those in the control group in both the post-intervention ($t(106) = 2.07, p = .04$) and three-month follow-up stages ($t(93.04) = 4.51, p < .001$). The effect of time was not significant ($F(1.74, 182.69) = 4.64, p = .014, \eta^2_L = .008$).
The Time × Group interaction group was significant \( F(1.74, 182.69) = 9.67, p < .001, \eta^2_L = .016 \), indicating that the change in SDQ ratings over time depended on the group. Tests of within-subject differences show that the Time × Group interaction displayed a significant linear relationship \( F(1, 105) = 12.68, p = .001, \eta^2_p = .11 \), with SDQ ratings increasing more in the experimental group than the control group. Post hoc analyses using paired \( t \)-tests revealed that in the experimental group, the SDQ ratings increased significantly between the pre- and post-intervention stages \( t(73) = -2.40, p = .019 \) and continued to increase significantly between the post-intervention and three-month follow-up stages \( t(73) = -3.81, p < .001 \). However, in the control group, the SDQ ratings remained fairly stable. The results are shown in Figure 4.8.

*Figure 4.8. Mean Strength and Difficulties Questionnaire teachers’ ratings at pre-intervention, post-intervention and at three-month follow-up stages.*
A 2 (group) × 3 (time) repeated measures ANOVA was conducted for the parents’ SDQ ratings. The effect of group was not significant ($F(1, 46) = .14, p = .71, \eta_p^2 = .003$). The effect of time was not significant ($F(2, 92) = .17, p = .84, \eta_p^2 = .004$). The Time × Group interaction was not significant ($F(2, 92) = .21, p = .81, \eta_p^2 = .004$). The means are given in Figure 4.9.

![Mean Strength and Difficulties Questionnaire Parents' Ratings](image)

*Figure 4.9. Mean Strength and Difficulties Questionnaire parents’ ratings at pre-intervention, post-intervention and three-month follow-up stages.*

**4.3.6.2 Teacher and parent feedback.** In response to the four additional questions in the parent and teacher post-test questionnaires and the follow-up versions for the experimental group, the teacher commented on improvements in the children’s emotional and social competence after the programme, for example, ‘Children with complex behavioural problems are now able to label emotions and understand how their actions
make others feel’. Comments from parents also indicated behavioural changes in the children’s emotion and social competence, for example, ‘I want to thank you for the Me and My Mates work that you did with my daughter’s pre primary class. I am pleased to say that she talks regularly about her feelings and how she has feelings, sometimes she will ask me what I am feeling or will offer to share how she is feeling. She can now recognise and explain physical changes felt depending on how she is feeling emotionally’. The teachers were supportive during the programme sessions and provided positive feedback. Over the course of the programme, many parents informed the teachers that their children had higher emotional and social competence and they found this to be positive. Other responses are given in Appendix R.

4.3.7 Maintenance of emotional regulation techniques. The study found that 80% of the children (61 of 76) used both the three-minute happy song and the 30-second imagery and breathing exercises to regulate their emotions in the three-month follow-up period.
Chapter 5: Programme Evaluation: Trial Two

5.1 Method: Trial Two

5.1.1 Participants. The two experimental schools (one government and one private school) in this study served as control schools in the 2008, Trial One study. Participants in the experimental group consisted of the Western Australian School Term Two, 2009 cohort of pre-primary school students, so they differed from those in the Western Australian School Term Three, 2008 control group whose data were used again for Trial Two as the control group. This design has been used successfully in previous research (for example, Hoelscher et al., 2010). The child response rate for the 2009 experimental group was 76%, which yielded a sample of 34 children (15 girls and 19 boys) with an average age of 5.2 years. There were 34 children (19 girls and 15 boys) in the control group (M age: 5.6 years).

5.1.2 Measures. Teacher and parent questionnaires (SDQ and ESSQ) were not included in Trial Two for the following reasons. The two pre-primary teachers involved in the Trial Two experimental group were the same as those in Trial One control group. Given that teachers had completed questionnaires for each child in the control group in Trial One, they indicated that they were not able to complete questionnaires again owing to the time involved in completing additional measures for each child in Trial Two. Only six of 34 parent questionnaires were returned at pre-intervention. Given the high rate of parent drop out at post-intervention in Trial One and in past research (Humphrey et al., 2008), six questionnaires at pre-intervention did not equate to sufficient power for statistical analyses (Cohen, 1992). Therefore, in Trial Two only the children completed pre-, post- and follow-up questionnaires.
The children’s measures used in Trial One were also used in Trial Two (See Appendices D, E, F, G, H and I for these measures).

5.1.3 Procedure.

5.1.3.1 Children’s measures. The procedure followed in Trial One was repeated in the second trial. In brief, during the first week of Term Two, 2009, in both schools (that were control schools in 2008) the programme was administered in the pre-primary classrooms. A presentation was given to parents about the programme in both schools. Parents were informed about the completion of assessments with children at the three testing periods. Teachers gave all the children an information sheet and consent forms that had to be signed by the parents (See Appendix N and O for a copy of the parent information sheet and consent form). Children were advised by parents and the researcher about the study, and children also completed a consent form (See Appendix P and Q for a copy of the information sheet read to children and the child consent form). Order effects of the child questionnaires were controlled by counterbalancing the order of administration of the questionnaires between-child and across times of measurement (Martin, 1985). One-on-one assessment sessions with each child for whom parental and child consent had been obtained were carried out at three time periods: pre-intervention, post-intervention and at three-month follow-up by the researcher. During these periods of approximately 10 minutes, each child completed Cartoon Faces, ERQ, HAI, EBEI and the CST.

5.1.3.2 Programme changes. Trial Two utilised the same programme content as Trial One. The content is described in Chapter 3 and the programme manual is in Appendix A. However, the programme in Trial Two differed from Trial One in the structure and manner of programme delivery. Unlike Trial One, in Trial Two, the 13 session programme
was jointly facilitated by the researcher and qualified pre-primary school teachers. The primary structural difference was the division of the class into two groups during certain activities, one facilitated by the researcher and the other by the school teacher. The teacher acted as a co-facilitator for the programme, along with assistance from the teaching assistants and the same volunteer that assisted the researcher. The children completed the activities facilitated by the researcher and the teacher in turns. Table 5.1 below shows the structure and the facilitator of each activity for each 50-minute session.

Table 5.1

<table>
<thead>
<tr>
<th>Activity</th>
<th>Facilitator</th>
<th>Duration (minutes)</th>
<th>Class Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Television show</td>
<td>Researcher</td>
<td>5</td>
<td>Whole</td>
</tr>
<tr>
<td>Explanatory conversation</td>
<td>Researcher</td>
<td>3</td>
<td>Whole</td>
</tr>
<tr>
<td>Role plays</td>
<td>Researcher</td>
<td>5</td>
<td>Half</td>
</tr>
<tr>
<td>Flashcard displays</td>
<td>Teacher</td>
<td>5</td>
<td>Half</td>
</tr>
<tr>
<td>Story book reading</td>
<td>Researcher</td>
<td>5</td>
<td>Whole</td>
</tr>
<tr>
<td>Explanatory conversation</td>
<td>Researcher</td>
<td>3</td>
<td>Whole</td>
</tr>
<tr>
<td>Singing and dancing</td>
<td>Researcher</td>
<td>3</td>
<td>Whole</td>
</tr>
<tr>
<td>Drawing discussion</td>
<td>Researcher</td>
<td>5</td>
<td>Whole</td>
</tr>
<tr>
<td>Puppet role plays</td>
<td>Researcher</td>
<td>5</td>
<td>Half</td>
</tr>
<tr>
<td>Drawings</td>
<td>Teacher</td>
<td>5</td>
<td>Half</td>
</tr>
<tr>
<td>Singing a happy song</td>
<td>Researcher</td>
<td>3</td>
<td>Whole</td>
</tr>
<tr>
<td>Imagery and breathing</td>
<td>Researcher</td>
<td>1</td>
<td>Whole</td>
</tr>
<tr>
<td>Using stickers</td>
<td>Researcher</td>
<td>1</td>
<td>Whole</td>
</tr>
</tbody>
</table>

Changes in the organisation and delivery of the programme were made because working in small groups was expected to provide more frequent practice of taught behaviours and more opportunities for reinforcement of each child’s behaviour by the researcher, the teachers, volunteer and teachers’ assistants, as well as peers. It was expected that group work in small numbers would give each child a forum to practice the newly
learned skills in a controlled setting where praise was received. For example, children were able to practice role plays with a classmate as in Trial One. In Trial One approximately 14 pairs of children engaged in role plays and simultaneously received the researcher’s feedback. In contrast, in Trial Two the researcher facilitated approximately seven pairs of children practicing role plays one at a time sequentially, providing individual praise for desired responses and feedback for improvements. Next, unlike in Trial One, the group of children clapped and provided positive feedback to their classmates. Additionally, there was time for each child to practice a role play with either the researcher or with volunteer and again receive praise.

At this developmental stage, children have been found to internalise personal evaluations from parents, peers and teachers with positive feedback facilitating the development of a positive self-schemata (Bandura, 1986; Hastings et al., 2000; Johnson, 2001; McGrath et al., 2003). Other potential benefits of the structural change included shorter duration sessions (50-minute sessions instead 60 minutes); increased prompting, practice and attention given to all children (and especially those with behavioural problems) divided into smaller groups; and more teacher involvement in the programme. The overall reduction in session times and the smaller groups were more appropriate for pre-primary children’s attention spans (Bourke, 1986; Campbell & Maertans, 1988; Lengel & Kuczala, 2010) and, therefore, were expected to increase children’s learning.

Also, in order to build generalisability, modifications were made to the programme. For instance, when a conflictual or problem-solving scenario occurred during the session, an activity was paused and the real-life scenario was addressed using the emotional and social competencies that were taught.
As in Trial One, training of the teachers and assistants consisted of an initial one-hour meeting, with discussions on the overall sessions and the purpose of each activity. Verbal and written instructions were shared with all assistants prior to the commencement of each session. However, in Trial Two, the researcher met with the teachers for 10 minutes before each session to give verbal and written instructions for that particular session, discuss programme content and clarify the teacher’s co-facilitation duties for the session. A 10-minute meeting between the researcher and each teacher also took place after each session to evaluate and discuss the teacher’s manner and delivery of the content.

5.1.4 Programme integrity. Programme integrity was maintained as each session’s content and delivery adhered to the programme manual (see Appendix A). Assistants were evaluated by the researcher for following instructions during session in the 10-minute discussion after each session and given corrective feedback if necessary.

After each 50-minute session teachers rated the developmental appropriateness of the activities and rated each child’s apparent/observed enjoyment on each of the activities using a five-point scale (1 = poor, 2 = below average, 3 = ok, 4 = good and 5 = excellent) (see Appendix S). Teachers rated the developmental appropriateness of the activities as either 4 or 5 and rated each child’s apparent/observed enjoyment on each of the nine activities as either 4 or 5. Teachers also gave high ratings on programme delivery, judging the delivery on the basis of punctuality of sessions, organisation, enthusiastic delivery of content, use of appropriate variations in tone, clear and audible delivery and the rapport shared by the researcher and volunteer with the students. Teachers rated themselves as compliant in following instructions on all facilitated activities. These results provide some evidence that the researcher delivered the programme in a valid manner.
Table 5.2 summarises the methodological changes made in Trial Two.

Table 5.2

*Summary of Methodological Changes Made in Trial Two*

<table>
<thead>
<tr>
<th></th>
<th>Trial One</th>
<th>Trial Two</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measurement</strong></td>
<td>Child, Teacher and Parent</td>
<td>Child only</td>
</tr>
<tr>
<td><strong>Programme</strong></td>
<td>Facilitated by researcher</td>
<td>Co-facilitated by researcher</td>
</tr>
<tr>
<td></td>
<td>Support from volunteer</td>
<td>and teacher</td>
</tr>
<tr>
<td></td>
<td>Whole-of-class activities</td>
<td>Support from volunteer</td>
</tr>
<tr>
<td></td>
<td>60-minute sessions</td>
<td>and teachers’ assistants</td>
</tr>
<tr>
<td><strong>Programme Integrity</strong></td>
<td>10 minute researcher-teacher</td>
<td>10 minute researcher-teacher</td>
</tr>
<tr>
<td></td>
<td>meetings before sessions</td>
<td>meetings before and after</td>
</tr>
<tr>
<td></td>
<td></td>
<td>sessions</td>
</tr>
</tbody>
</table>

5.1.5 **Attendance and retention rates.** The Me and My Mates programme was administered concurrently to two pre-primary classes. Combined attendance rates for the 13 sessions were high with 28 students attending all 13 sessions (82%) and 34 students attending six or more sessions (100%). The average number of sessions attended per child was 11. The reason for absence from class was mainly illness.

Table 5.3 illustrates the percentage of total child assessments completed by experimental and control groups at pre-intervention, post-intervention and three-month follow-up stages.
Table 5.3

_Percentage of Total Child Assessments Completed at Pre-Intervention, Post-Intervention and Three-Month Follow-Up Stages_

<table>
<thead>
<tr>
<th>Child</th>
<th>Experimental Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre</td>
<td>Post</td>
</tr>
<tr>
<td>Child</td>
<td>100</td>
<td>93</td>
</tr>
</tbody>
</table>

Subsequent to the completion of pre-intervention assessments, an additional six children in the experimental group obtained parental consent, so these children were included in the post-hoc $t$-test analyses at post-intervention and three-month follow-up (Cohen et al., 2003). This modification is congruent with Cohen et al. 2003 suggestion on how to manage data. Two children in the experimental group left the school, so they were excluded from post-intervention and three-month follow-up analyses. One child in the experimental group was overseas during the post-intervention testing and was excluded. Even in the control group one child was excluded from the post-intervention testing for the same reason.

5.1.6 Power analysis. An 80% probability of detecting a large difference between population means with a two group one-way ANOVA at an alpha level of .05 requires 26 participants in each group (Cohen, 1992). Hence, the probability of detecting effects in this study was moderately high.

5.2 Results: Trial Two

5.2.1 Statistical analyses. Experimental Evaluation Trial Two of the Me and My Mates programme compared students in the experimental group across time and in contrast to a control group. The dependent variables were emotional knowledge, emotional
regulation, attribution of intent, sympathy and empathy, prosocial behaviour, and aggressive behaviour. As noted in detail in section 4.2.1 the same statistical analyses were conducted. In brief, preliminary analyses comprising a series of one-way analyses of variances (ANOVAs) and independent samples t-tests were undertaken to test for pre-existing differences between experimental and control students. For the CST measure assessing prosocial behaviour and aggressive behaviour, a repeated measures multivariate analysis of variance (MANOVA) was conducted, and for all other measures, a series of repeated measures ANOVAs was conducted. Post hoc analyses comprised paired samples t-tests for within condition comparisons and independent t-tests were conducted for between condition comparisons.

5.2.2 Data screening. The data were screened for univariate and multivariate outliers for the experimental and control groups as separate samples in each of the three testing periods for each of the four outcome measures of Emotion Recognition Questionnaire (ERQ), Hostile Attribution of Intent (HAI), Eisenberg and Bryant Empathy Index (EBEI) and Challenging Situation Task (CST). Inspection of means, histograms and box plots revealed no outliers outside the criterion which was set at 3.5 SDs from the overall mean.

5.2.3 Assumption testing for ANOVA. As noted in detail in section 4.2.3 all assumptions were met. In brief, prior to analyses being undertaken, the data were examined for accuracy of entry. To determine whether the data violated any of the ANOVA assumptions of normality, homogeneity of variance or sphericity, a number of checks were performed. Where the homogeneity of variance assumption was violated, the alpha level
was increased from .05 to .01 and if sphericity was violated, Huynh-Feldt Epsilon was used and a lower bound estimate of $\eta^2$ was calculated, $\eta^2_L$.

5.2.4 Preliminary analyses. Pre-intervention differences among experimental (classes 6 and 7) and control (classes 4 and 5) groups were assessed by independent samples $t$-tests and one way ANOVAs. For each class and measure, Table 5.4 shows the means and standard deviations. According to child responses, children in class 4 had significantly lower HAI scores than children in class 6 and children in class 7 ($F (3,58) = 9.84, p < .001$). When classes were grouped into experimental and control, children in the experimental group had significantly higher HAI scores, $M = 3.10 (0.73)$, than children in the control group, $M = 2.18 (1.03), (t (60) = 4.47, p < .001)$. No other significant differences were found when classes were grouped into experimental and control groups and compared.
Table 5.4

*Class Means and Standard Deviations (in Parentheses)*

<table>
<thead>
<tr>
<th>Measures</th>
<th>Class 4</th>
<th>Class 5</th>
<th>Class 6</th>
<th>Class 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERQ</td>
<td>20.61 (4.19)</td>
<td>20.69 (4.44)</td>
<td>19.50 (4.00)</td>
<td>20.91 (4.09)</td>
</tr>
<tr>
<td>HAI</td>
<td>1.83 (0.99)**</td>
<td>2.56 (0.96)</td>
<td>3.35 (0.75)**</td>
<td>2.88 (0.64)**</td>
</tr>
<tr>
<td>EBEI</td>
<td>3.00 (2.20)</td>
<td>3.19 (1.76)</td>
<td>2.35 (1.27)</td>
<td>2.25 (1.67)</td>
</tr>
<tr>
<td>CST: Prosocial</td>
<td>0.89 (0.96)</td>
<td>1.25 (1.07)</td>
<td>1.00 (1.03)</td>
<td>1.13 (0.99)</td>
</tr>
<tr>
<td>CST: Aggressive</td>
<td>0.78 (0.88)</td>
<td>0.44 (0.81)</td>
<td>0.60 (1.14)</td>
<td>0.63 (0.74)</td>
</tr>
</tbody>
</table>

Note. **p<.001. ERQ = Emotion Recognition Questionnaire, HAI = Hostile Attribution of Intent, EBEI = Eisenberg and Bryant’s Empathy Index, CST = Challenging Situation Task.
5.3 Trial Two: Experimental and control groups

5.3.1 Emotional knowledge.

5.3.1.1 Emotional Recognition Questionnaire. A 2 (group) x 3 (time) repeated measures analysis of variance (ANOVA) was conducted for the ERQ scores. There was a significant main effect of group ($F(1, 56) = 4274.55, p < .001, \eta^2_p = .99$) with the experimental group scoring higher than the control group. When comparing the experimental to control group at each time point the independent samples $t$-tests revealed that participants in the experimental group scored significantly higher on the ERQ than those in the control group at both the post-intervention ($t(63) = -9.69, p < .001$) and three-month follow-up ($t(64) = -7.50, p < .001$) stages. There was a significant main effect of time ($F(1.61, 90.04) = 114.79, p < .001, \eta^2_L = .38$), a significant linear trend of time ($F(1, 56) = 165.26, p < .001, \eta_p^2 = .75$) and a significant quadratic trend of time ($F(1, 56) = 39.45, p < .001, \eta_p^2 = .41$). ERQ scores increased between the pre-intervention and post-intervention stages and then levelled off between the post-intervention and three-month follow-up stages (see Figure 5.1).

There was a significant Time x Group interaction ($F(1.61, 90.04) = 54.07, p < .001, \eta_L^2 = .23$), revealing that change over time in ERQ scores depended on the group. Tests of within subject contrasts showed that the Time x Group interaction displayed a significant linear trend ($F(1, 56) = 48.04, p < .001, \eta_p^2 = .46$) and a significant quadratic trend ($F(1, 56) = 63.08, p < .001, \eta_p^2 = .53$). The increase in ERQ scores between pre- and post-intervention was steeper for the experimental group than the control group. Also, ERQ scores levelled off between the post-intervention and three-month follow-up stages in the experimental group and there was a gradual increase between the post-intervention and three-month follow-up stages in the control group.
Post hoc analyses using paired $t$-tests revealed that the increase in ERQ scores between the pre- and post-intervention stages was significant for the experimental group ($t (25) = -13.05, p < .001$) but not the control group ($t (32) = -1.26, p = .216$). Between the post-intervention and three-month follow-up stages, there was no significant change in ERQ scores in the experimental group ($t (30) = .37, p = .712$) but there was a significant increase between the post-intervention and three-month follow-up stages in the control group ($t (32) = -3.89, p < .001$).

![Figure 5.1. Mean Emotion Recognition Questionnaire Scores at pre-intervention, post-intervention and three-month follow-up stages.](image)

### 5.3.2 Attribution of intent.

#### 5.3.2.1 Hostile Attribution of Intent. A 2 (group) x 3 (time) repeated measures ANOVA was conducted for the HAI scores. There was a main effect of group ($F (1, 56) = 435.95, p < .001, \eta^2_p = .89$), with the experimental group scoring lower than the
control group. When comparing the experimental to control group, the independent samples t-tests indicated that participants in the experimental group had significantly lower HAI scores than those in the control group at both the post-intervention ($t(63) = 8.05, p < .001$) and three-month follow-up ($t(64) = 8.26, p < .001$) stages. There was a significant main effect of time ($F(2, 112) = 99.66, p < .001, \eta_p^2 = .73$), a significant linear trend of time ($F(1, 56) = 87.60, p < .001, \eta_p^2 = .73$) and a significant quadratic trend of time ($F(1, 56) = 21.75, p < .001, \eta_p^2 = .43$). HAI scores decreased between the pre-intervention and post-intervention stages then levelled off between the post-intervention and three-month follow-up stages.

There was a significant Time x Group interaction ($F(2, 112) = 57.24, p < .001, \eta_p^2 = .505$) revealing that the rate of decrease in HAI scores depended on the group. Tests of within-subject contrasts showed that the Time x Group interaction displayed a significant linear trend ($F(1, 56) = 87.60, p < .001, \eta_p^2 = .610$) and a significant quadratic trend ($F(1, 56) = 21.75, p < .001, \eta_p^2 = .280$). The decrease in HAI scores between the pre-intervention and post-intervention stages was steeper for the experimental group, and in the control group the decrease was minimal. Also, the decrease in HAI scores between the post-intervention and three-month follow-up stages in the experimental group was gradual, but there was no change in the control group (see Figure 5.2). Post hoc analyses using paired t-tests revealed that the decrease in HAI scores between pre- and post-intervention was significant for the experimental group ($t(25) = 20.03, p < .001$) but not the control group ($t(32) = 1.81, p = .08$). Between the post-intervention and three-month follow-up stages the decrease in HAI scores was not significant in the experimental group ($t(30) = 1.72, p = .096$) or the control group ($t(32) = .00, p = 1.00$).
5.3.3 Empathy and sympathy.

5.3.3.1 Eisenberg and Bryant’s Empathy Index. A 2 (group) x 3 (Time) repeated measures ANOVA was executed for EBEI scores. There was a main effect of group ($F(1, 56) = 640.66, p < .001, \eta^2_p = .92$), with the experimental group scoring higher than the control group. When comparing the experimental to control groups, the post hoc independent $t$-tests showed that participants in the experimental group had significantly higher EBEI scores than those in the control group at both the post-intervention ($t(63) = -9.51, p < .001$) and three-month follow-up ($t(64) = -7.30, p < .001$) stages. There was a significant main effect of time ($F(2, 112) = 73.57, p < .001, \eta^2_p = .57$), a significant linear trend of time ($F(1, 56) = 123.41, p < .001, \eta^2_p = .69$) and a significant quadratic trend of time ($F(1, 56) = 26.88, p < .001, \eta^2_p = .32$),
indicating that EBEI scores increased between the pre-intervention and post-intervention stages then levelled off between the post-intervention and three-month follow-up stages.

There was a significant Time x Group interaction ($F(2, 112) = 49.49, p < .001, \eta_p^2 = .47$) indicating that the rate of change in EBEI scores was dependent on the group. Tests of within-subject contrasts revealed that the interaction between group and time displayed a significant linear trend ($F(1, 56) = 66.62, p = .001, \eta_p^2 = .69$) and a significant quadratic trend ($F(1, 56) = 33.44, p = .001, \eta_p^2 = .32$). For the experimental group the rate of improvement in EBEI scores between the pre- and post-intervention stages was steeper and then levelled off between the post-intervention and three-month follow-up stages, whereas in the control group EBEI scores gradually increased over time (see Figure 5.3). Post hoc analyses using paired $t$-tests revealed that the increase in EBEI scores between the pre- and post-intervention stages was significant for the experimental group ($t(25) = -18.71, p < .001$) but not for the control group ($t(32) = -.58, p = .570$). Also, there was no significant change in EBEI scores between the post-intervention and three-month follow-up stages in the experimental group ($t(30) = .00, p = 1.00$) or the control group ($t(32) = -1.20, p = .240$).
**Figure 5.3.** Mean Eisenberg and Bryant Empathy Index Scores at pre-intervention, post-intervention and three-month follow-up stages.

### 5.3.4 Prosocial and aggressive behaviour.

#### 5.3.4.1 Challenging Situation Task. As noted in detail in section 4.3.4 prior to conducting the repeated measures MANOVA the data were examined using SPSS to assure all of its underlying assumptions were met. Tests of between subjects group \( (F(4, 53) = 25.51, p < .001, \eta_p^2 = .66) \), within-subjects time \( (F(7, 50) = 12.98, p < .001, \eta_p^2 = .65) \) and within subjects time by group \( (F(7, 50) = 12.81, p < .001, \eta_p^2 = .64) \) were all significant, indicating that a series of repeated measures ANOVAs could be performed on the prosocial and aggression scores.

A 2 (group) x 3 (time) repeated measures ANOVA was conducted for prosocial scores. There was a main effect of group \( (F(1, 56) = 549.09, p < .001, \eta_p^2 = .91) \), with
the experimental group scoring higher than the control group. Independent samples $t$-tests revealed that when participants in the experimental group were compared to participants in the control group, they had significantly higher prosocial scores at both the post-intervention ($t(52.3) = -15.72, p < .001$) and three-month follow-up ($t(47.8) = -10.65, p < .001$) stages. There was a significant main effect of time ($F(1.78, 99.57) = 49.16, p < .001, \eta^2_p = .32$), a significant linear trend of time ($F(1, 56) = 58.13, p < .001, \eta^2_p = .51$) and a significant quadratic trend of time ($F(1, 56) = 27.16, p < .001, \eta^2_p = .33$), indicating that prosocial scores increased between the pre-intervention and post-intervention stages, then levelled off between the post-intervention and three-month follow-up stages.

There was a significant Time x Group interaction ($F(1.78, 99.57) = 43.43, p < .001, \eta^2_c = .30$), revealing that change over time in prosocial scores depended on the group. There was a significant Time x Group linear trend ($F(1, 56) = 35.85, p < .001, \eta^2_p = .51$) and a significant Time x Group quadratic trend ($F(1, 56) = 62.02, p < .001, \eta^2_p = .53$). In the experimental group between the pre-intervention and post-intervention stages, there was a steeper increase in prosocial scores compared to the control group. Prosocial scores levelled off between the post-intervention and three-month follow-up stages in the experimental group and increased gradually in the control group (see Figure 5.4). Post hoc analyses using paired samples $t$-tests showed that in the experimental group between the pre-intervention and post-intervention stages, there was a significant increase in prosocial scores ($t(25) = -13.57, p < .001$) but not between the post-intervention and three-month follow-up ($t(30) = .33, p = .745$) stages. By contrast, in the control group the change in prosocial scores was not significant between the pre-intervention and post-intervention ($t(32) = -.58, p = .569$) stages or between the post-intervention and three-month follow-up ($t(32) = -1.20, p = .240$) stages.
Figure 5.4. Mean Prosocial Scores at pre-intervention, post-intervention and three-month follow-up stages.

A 2 (group) x 3 (time) repeated measures ANOVA was conducted for aggression scores. There was a main effect of group ($F(1, 56) = 33.29, p < .001, \eta_p^2 = .37$) with the experimental group scoring lower than the control group. When comparing the experimental to control group, independent samples $t$-tests showed that participants in the experimental group had significantly lower aggression scores than those in the control group at both the post-intervention ($t(36.2) = 5.05, p < .001$) and three-month follow-up ($t(35.70) = 2.99, p = .005$) stages. There was a significant main effect of time ($F(1.78, 99.47) = 3.68, p = .034, \eta_p^2 = .03$) and a significant linear trend of time ($F(1, 56) = 4.76, p = .033, \eta_p^2 = .08$) revealing that aggression scores significantly changed over time.
There was a significant Time x Group interaction \( (F(1.78, 99.47) = 6.23, p = .004, \eta^2_p = .05) \) indicating that change over time in aggression scores depended on the group. The Time x Group quadratic trend was significant \( (F(1, 56) = 15.40, p < .001, \eta^2_p = .02) \). In the experimental group between the pre-intervention and post-intervention stages, aggression scores decreased steeply and levelled off between the post-intervention and three-month follow-up stages (see Figure 5.5). Contrastingly, in the control group, the rate of aggression scores peaked at the post-intervention stage and then declined at the three-month follow-up stage. Post hoc analyses using paired samples \( t \)-tests showed that, in the experimental group, between the pre-intervention and post-intervention stages, aggression scores decreased significantly \( (t(25) = 2.78, p = .010) \) but not between the post-intervention and three-month follow-up \( (t(30) = 1.00, p = .325) \) stages. In the control group, the rate of aggression scores increased significantly at the post-intervention \( (t(32) = -2.81, p = .008) \) stage and then decreased significantly at the three-month follow-up \( (t(32) = 2.46, p = .020) \) stage.
Figure 5.5. Mean Aggression Scores at pre-intervention, post-intervention and three-month follow-up stages.

5.3.5 Emotional regulation.

5.3.5.1 Maintenance of emotional regulation techniques. The study found that 91% of the children (29 of 32) in the experimental group reported that they used both the three-minute happy song and the thirty-second, imagery and breathing techniques taught to regulate their emotions in the three-month follow-up period.

5.4 Results: Comparison of Experimental Groups in Trial One and Trial Two

5.4.1 Statistical analyses. The current study set out to examine whether the improvements made to Me and My Mates in Trial Two led to significantly greater improvements in children’s emotional and social competence compared to Trial One across time and between the two experimental groups. The dependent variables examined were emotional knowledge, emotional regulation, attribution of intent,
sympathy, empathy, prosocial behaviour and aggressive behaviour. As previously noted in section 4.2.1 the same statistical analyses procedures were conducted. In summary, for the CST measure assessing prosocial behaviour and aggressive behaviour, a repeated measures multivariate analysis of variance (MANOVA) was conducted, and for all other measures, a series of repeated measures ANOVAs was conducted. Post hoc analyses comprised paired samples t-tests for within condition comparisons and independent t-tests were conducted for between condition comparisons.

The repeated measures ANOVAs Time effects and Group effects, and independent samples t-tests were reported in section 4.3 and section 5.3. Therefore, this section only reports the repeated measures ANOVAs Time x Group interactions with group as a between-participants factor and time as the repeated factor, linear and quadratic trends to test for improvements in the experimental groups over time and compared to each other, and post hoc paired samples t-tests analyses to examine whether improvement in emotional and social competencies were significantly different at each testing period.

5.4.2 Data screening and assumption testing for ANOVA. Inspection of means, histograms and box plots revealed no outliers outside the criterion which was set at 3.5 SDs from the overall mean. All other details as previously noted in section 4.2.3. In brief, where the homogeneity of variance assumption was violated, the alpha level was increased from .05 to .01. As noted by Tabachnick and Fidell (2007), if sphericity was violated, Huynh-Feldt Epsilon was used and a lower bound estimate of $\eta^2$ was calculated, $\eta^2_L$. Partial eta-squared, $\eta^2$ or $\eta^2_L$ was used as a measure effect sizes and according to Cohen (1988) a small effect is $\eta^2 = .01$, medium effect is $\eta^2 = .09$, and a large effect is $\eta^2 = .25$. 
5.4.3 Preliminary analyses. In general, at pre-intervention the 2009 experimental group (classes 6 and 7) had lower emotional and social competence than the 2008 experimental group (classes 1, 2 and 3) and these differences were assessed by independent samples t-tests and one-way ANOVAs (see Table 4.4 and Table 5.4 for means and standard deviations). According to child responses, children in class 1 had significantly lower HAI scores, than children in class 6 and class 7 ($F$ (6, 130) = 13.41, $p < .001$). Additionally, children in class 2 had significantly lower HAI scores than children in class 6 ($F$ (6, 130) = 13.41, $p < .001$). When schools were divided into 2009 experimental and 2008 experimental groups, children in the 2009 experimental group had a significantly higher HAI scores than children in the 2008 experimental group ($t$ (72.64) = -9.31, $p < .001$). Children in the 2008 experimental group had significantly higher ERQ scores than children in the 2009 experimental group ($t$ (101) = 2.09, $p = .039$). Children in the 2008 experimental group scored significantly higher on the EBEI than children in the 2009 experimental group ($t$ (101) = 3.27, $p = .001$). Children in the 2008 experimental group had significantly higher prosocial scores than children in the 2009 experimental group ($t$ (102) = 2.07, $p = .041$).

5.5 Trial Two: Experimental 2008 and experimental 2009 groups

5.5.1 Emotional knowledge.

5.5.1.1 Emotion Recognition Questionnaire. There was a significant Time x Group interaction ($F$ (1.25, 121.47) = 11.83, $p = .000$, $\eta^2_p = .07$) showing that change over time in ERQ scores depended on the group. There was a significant Time x Group linear trend ($F$ (1.97) = 66.62, $p = .004$, $\eta^2_p = .04$) and quadratic trend ($F$ (1, 97) = 65.53, $p < .001$, $\eta^2_p = .05$). The increase in ERQ scores between pre- and post-intervention was steeper for the 2009 experimental group than the 2008 experimental group. ERQ scores levelled off between the post-intervention and three-month follow-
up stages in the 2009 experimental group and there was a steeper gradual increase in ERQ scores between the post-intervention and three-month follow-up stages in 2008 experimental group. Post hoc analyses using paired t-tests revealed that the increase in ERQ scores between pre- and post-intervention was significant for the 2009 experimental group ($t(25) = -13.05, p < .001$) and the 2008 experimental group ($t(73) = -10.15, p < .001$). There was no significant increase in ERQ scores between the post-intervention and three-month follow-up stages in the 2009 experimental group ($t(30) = .37, p = .712$) but there was significant increase in ERQ scores between the post-intervention and three-month follow-up stages in 2008 experimental group ($t(74) = -4.33, p < .001$) (see Figure 5.6).

*Figure 5.6. Mean Emotion Recognition Questionnaire Scores at pre-intervention, post-intervention and three-month follow-up stages.*

### 5.5.2 Attribution of intent.

#### 5.5.2.1 Hostile Attribution of Intent.

Figure 5.7 illustrates that there was a significant Time x Group interaction ($F(2, 194) = 57.44, p < .001, \eta_p^2 = .37$). Change
over time in HAI scores depended on the group. Tests of within subject contrasts showed that the interaction between time and group displayed a significant linear trend \((F (1, 97) = 69.21, p = .001, \eta^2_p = .42)\) and a significant quadratic trend \((F (1, 96) = 44.14, p = .001, \eta^2_p = .31)\). HAI scores decreased between pre- and post-intervention for the 2009 experimental group and the 2008 experimental group, however the rate of decline was steeper for the 2009 group. The rate of decrease was steeper between the post-intervention and three-month follow-up stages in the 2008 experimental group compared to the 2009 experimental group. Paired samples \(t\)-tests showed that the decrease in HAI scores between pre- and post-intervention was significant for the 2009 experimental group \((t (25) = 20.03, p < .001)\) and the 2008 experimental group \((t (73) = 2.14, p = .036)\). In the 2009 experimental group there was no significant decrease between the post-intervention and three-month follow-up \((t (30) = 1.72, p = .096)\) stages, whereas there was a significant decrease between the post-intervention and three-month follow-up stages in the 2008 experimental group \((t (74) = 3.99, p < .001)\).
Figure 5.7. Mean Hostile Attribution of Intent Scores at pre-intervention, post-intervention and at three-month follow-up stages.

5.5.3 Empathy and sympathy.

5.5.3.1 Eisenberg and Bryant’s Empathy Index. There was a significant Time x Group interaction ($F(1.89, 181.59) = 22.56, p < .001, \eta^2_L = .15$) revealing that change over time in EBEI scores was dependent on group. Tests of within-subject contrasts show that the interaction between group and time displayed a significant linear trend ($F(1, 96) = 13.95, p < .001, \eta^2_p = .13$) and a significant quadratic trend ($F(1, 96) = 32.17, p < .001, \eta^2_p = .11$). The increase in EBEI scores between pre- and post-intervention was steeper for the 2009 experimental group than the 2008 experimental group. In the 2009 experimental group EBEI scores levelled off between the post-intervention and three-month follow-up stages, whereas, there was a steeper increase in EBEI scores between the post-intervention and three-month follow-up stages in the 2008 experimental group (see Figure 5.8). Post hoc analyses using paired $t$-tests revealed that the increase in EBEI scores between pre- and post-intervention was significant for the 2009 experimental group ($t(25) = -18.71, p < .001$) and the 2008 experimental group ($t(73) = -7.02, p < .001$). In the 2009 experimental group between the post-intervention and three-month follow-up stages the change was not significant ($t(30) = .00, p = 1.00$), whereas there was a significant increase in EBEI scores in the 2008 experimental group ($t(73) = -5.89, p < .001$).
Figure 5.8 Mean Eisenberg and Bryant Empathy Index Scores at pre-intervention, post-intervention and three-month follow-up stages.

5.5.4 Prosocial and aggressive behaviour.

5.5.4.1 Challenging Situation Task. As noted in section 4.3.4, prior to conducting the repeated measures MANOVA, the data were examined using SPSS to assure all of its underlying assumptions were met. Tests of between subjects group \((F(3, 96) = 1.94, p = .04, \eta_p^2 = .06)\), tests of within-subjects time \((F(7, 92) = 43.80, p < .001, \eta_p^2 = .77)\) and within subjects time by group \((F(7, 92) = 5.90, p < .001, \eta_p^2 = .31)\), were all significant, indicating that a series of repeated measures ANOVAs could be performed on prosocial and aggression scores.

A 2 (group) x 3 (time) repeated measures ANOVA was executed for prosocial scores. There was a significant Time x Group interaction \((F(2, 196) = 9.68, p < .001, \eta_p^2 = .09)\), revealing that change over time in prosocial scores depended on the group.
There was a significant linear Time x Group trend ($F(1, 98) = 8.32, p = .005, \eta_P^2 = .08$) and a significant quadratic Time x Group trend ($F(1, 98) = 11.08, p = .001, \eta_P^2 = .10$).

In the 2009 experimental group, between the pre-intervention and post-intervention stages, there was a steeper increase for prosocial scores compared to the 2008 experimental group. In the 2008 experimental group between the post-intervention and three-month follow-up stages, there was a steeper increase for prosocial scores compared to the 2009 experimental group (see Figure 5.9). Post hoc analyses using paired samples $t$-tests showed that, in the 2009 experimental group, between the pre-intervention and post-intervention stages, there was a significant increase in prosocial scores ($t(25) = -13.57, p < .001$) but not between the post-intervention and three-month follow-up stages ($t(30) = .33, p = .745$). In the 2008 experimental group between the pre-intervention and post-intervention stages, there was a significant increase for prosocial scores ($t(73) = -7.02, p < .001$) and between the post-intervention and three-month follow-up stages ($t(73) = -5.90, p < .001$).
A 2 (group) x 3 (time) repeated measures ANOVA was carried out for aggression scores. The Time x Group interaction was not significant ($F(1.59, 155.82) = 18.28, p = .22, \eta^2_p = .01$). Post hoc analyses using paired samples $t$-tests showed that, in the 2009 experimental group, between the pre-intervention and post-intervention stages, aggression scores decreased significantly ($t(25) = 2.78, p = .010$), but not between post-intervention and three-month follow up ($t(30) = 1.00, p = .325$) stages. In the 2008 experimental group aggression scores decreased significantly between the pre-intervention and post-intervention, ($t(74) = 2.63, p = .010$) stages, and between the post-intervention and three-month follow up ($t(74) = 2.71, p = .008$) stages (see Figure 5.10).
**Figure 5.10.** Mean Aggression Scores at pre-intervention, post-intervention and three-month follow-up stages.

### 5.5.5 Maintenance of emotional regulation techniques at three-month follow-up. The study found that 91% of children (29 of 32) in the 2009 experimental group and 80% of children (61 of 76) in the 2008 experimental group used the three-minute happy song and the thirty-second imagery and breathing techniques taught to regulate their emotions at the three-month follow-up period. Thus, 11% more children used the emotional regulation techniques in the 2009 experimental group compared to the 2008 experimental group.
Chapter 6: Discussion

6.1 Overview

The overarching goals of the research were to develop, pilot, improve, re-administer and evaluate a 13-session emotional and social competence programme, Me and My Mates, for pre-primary school children for low SES suburbs. The programme evaluation studies consisted of two experimental and two control schools in Trial One and two experimental and two control schools in Trial Two. The Trial Two programme differed from the Trial One programme in the following ways: child assessments only, co-facilitation by a researcher and teacher, support from volunteer and teachers’ assistants, whole-of-class and half-of-class activities (increased practice of competencies and increased reinforcement), real life in-session scenarios used to practice competencies, shorter 50-minute sessions and 10-minute researcher-teacher meetings before and after sessions.

The first research question investigated whether children who participate in Me and My Mates show significantly greater increases in emotional and social competence than children who do not. The first question was answered in the affirmative. In the experimental groups, both programme trials found that emotional knowledge, sympathy, empathy and prosocial behaviour increased at a significantly higher rate over time and that hostile attribution of intent and aggressive behaviour decreased at a significantly higher rate over time. The general trend across variables in experimental groups for both trials was that, at post-intervention, changes in emotional and social competence peaked, and then levelled off at three-month follow-up. The exceptions were that hostile attribution of intent continued to decline at three-month follow-up in both trials; aggressive behaviour also continued to decline in Trial One and prosocial behaviour continued to increase in Trial One.
In both trials, emotional knowledge, sympathy, empathy, and prosocial behaviour were significantly greater in children who participated in the programme at post-intervention and at three-month follow-up, compared to children who did not receive the programme. Hostile attribution of intent and aggressive behaviour were significantly lower in children who participated in the programme at post-intervention and three-month follow-up, compared to children in the control group. In Trial One, the teacher and parent results were partially supportive of the first research question, as emotional and social competencies increased at a significantly higher rate over time in the experimental group. However, when compared to the control group, this difference was only significant at the three-month follow-up. In Trial One, teacher and parent feedback provided some support for increases in children’s emotional and social competence.

Research question two stated, will children who participate in Me and My Mates show significantly lower rates of emotional and behavioural problems than children who do not? Parents’ results were supportive, and teacher and parent feedback provide some support.

Research question three explored whether a high percentage of children who participated in Me and My Mates would continue to use the emotional regulation techniques taught three months after the programme. At three-month follow-up, 80% of children in Trial One and 91% of children in Trial Two reported continued use of the emotional regulation techniques taught.

Research question four investigating whether the improvements made to Me and My Mates in Trial Two led to significantly greater improvements in children’s emotional and social competence, when compared to Trial One was supported. Effect
sizes were generally moderate to large, and were larger in Trial Two for all variables (Cohen, 1988).

6.2 Emotional Knowledge

Results from both programme trials provided support for research question one. Children who participated in Me and My Mates showed significantly greater increases in emotional knowledge than children who did not. Emotional knowledge increased at a significantly higher rate over time in the experimental groups compared to the control group. In both experimental groups, emotional knowledge increased rapidly at post-intervention and then levelled off at three-month follow-up. Contrastingly, emotional knowledge remained fairly stable in the control group over time. This pattern of findings indicates that five-year-old children’s emotional knowledge was enhanced by Me and My Mates. Additionally, improvements made in children’s emotional knowledge were sustained three months after the programme. Moreover, the magnitude of these findings was supported by a medium effect size in the first trial and a large effect size in the second trial (Cohen, 1988). Demonstrating that, on average, children who participated in Me and My Mates had significantly greater emotional knowledge after the programme and three-months later, compared to children who did not participate.

Programme evaluations of PATHS (Domitrovich et al., 2007) and Emotions Course (Izard et al., 2004) have found that the acquisition of pre-primary children’s emotional knowledge can be accelerated through classroom-based emotional and social competence programmes. Children who participated in the pilot trial of the PATHS programme had greater emotional knowledge in three direct child measures, compared to those in the control group, at post-intervention (Domitrovich et al., 2007). In another trial of PATHS using the Emotion Recognition Questionnaire, improvements in
emotional knowledge in the experimental group were significant compared to the control group (Bierman et al., 2008). In both PATHS studies, however, the differences were marginal and effect sizes were small. In the present study, there were medium and large effect sizes, indicating that Me and My Mates had a greater impact on emotional knowledge, compared to PATHS. The discrepancies between the results in the present study and Domitrovich et al.’s (2007) study may be explained by either the programme content or the differences in programme administration. PATHS is administered by the class teacher on a daily basis over a year, as part of the regular school curriculum, whereas Me and My Mates was administered weekly by a postgraduate clinical psychology research student over one school term. Trials with the Penn Resiliency Programme (Seligman et al., 1995) and the FRIENDS programme (Barrett & Turner, 2001) found significantly better outcomes when the programmes were delivered by someone external to the school compared to when teachers delivered the programme.

Two of three direct child measures evaluating the Emotions Course found that emotional knowledge increased from pre-intervention to post-intervention in a single pilot trial (Izard et al., 2004). In that study, a multiple regression analysis was undertaken, showing that emotional knowledge accounted for six per cent to seven per cent of the variance and effect sizes were small. Additionally, no comparisons were made to a control group. Emotions Course is a 22-lesson programme delivered by teachers and some strategies utilised are not evidence based. It is, therefore, difficult to compare this programme’s results with Me and My Mates. However, evaluations to date of the Emotions Course do not show its superiority over Me and My Mates.

Widen and Russell’s (2003) review of interventions to increase emotional knowledge found that during the developmental period of four to five years old, children are only beginning to label negative emotions such as feeling sad. The Emotion
Recognition Questionnaire requires children to label other negative emotions, such as angry and scared, to obtain a higher score. Given the findings in the present study, it does appear that emotional knowledge accelerated in the children who received Me and My Mates, indicating that enhancing emotional knowledge when children are only beginning to recognise positive and negative emotions in others can be done effectively with developmentally appropriate content administered in a programmatic way.

6.3 Attribution of Intent

In both programme trials, hostile attribution of intent decreased at a significantly faster rate over time in the experimental group compared to the control group. In addition, hostile attribution of intent decreased at post-intervention, and then continued to decrease at three-month follow-up. These findings indicate that Me and My Mates was successful in increasing children’s willingness to give others the ‘benefit of the doubt’ in ambiguous situations and that there was a flow-on effect for a lengthy period of time beyond the programme. After the programme and three-months later, children who participated in Me and My Mates had significantly lower hostile attribution of intent, compared to those who had exposure only to the regular classroom curriculum. In the first trial, the effect sizes were small, whereas in the second trial the effect sizes were large.

The ten studies previously reviewed that evaluated pre-primary school emotional and social competence programmes (see section 2.4) did not measure hostile attribution of intent or children’s cognitive processes. However, older children’s programmes have assessed negative cognitions. For example, depression was measured in both The Penn Resiliency Programme (Gillham et al., 2007) and Aussie Optimism (Roberts et al., 2010), and anxiety was measured in FRIENDS (Barrett et al., 2006). In some of the trials of these three programmes, post-intervention data showed reductions in depressive
cognitions (Gillham et al., 2007; Roberts et al., 2010) and anxiety cognitions (Barrett et al., 2006). However, follow-up results have been inconsistent. It is challenging and takes considerable time to modify established cognitions or schemata in older children (Beck & Alford, 2009; Cole & Hall, 2008; Merry et al., 2003; Seligman et al., 1995; Young et al., 2003). Again, pre-primary children only learn and develop advanced social cognition; therefore, it is the ideal time to provide socialised intervention programmes.

The current results, showing increases in emotional knowledge and decreases in hostile attribution of intent, when taken together support the first two steps of SIP theory (Dodge et al., 2002). It might be argued that greater emotional knowledge leads to greater accuracy in encoding other’s emotional signals; that is, children are more likely to attribute ambiguous, though negative situations, as accidental and, therefore, score lower on hostile attribution of intent. The hostile attribution of intent results provide some support for the theories of emotional competence and SIP as well as the programme’s validity. Me and My Mates was developed on principles of emotional competence and SIP.

6.4 Empathy and Sympathy

The results showed increases in empathy and sympathy in both trials, providing further evidence for the programme’s effectiveness. Empathy and sympathy increased at a significantly faster rate over time in the experimental groups, compared to the control group. Effect sizes were medium in Trial One and large in Trial Two. Me and My Mates was successful in teaching children to express more empathy and sympathy and these changes were significant compared to the control group immediately at the end of the programme and three months later. Surprisingly, none of the ten programme evaluations involving pre-primary students, reviewed in section 2.4, measured empathy or
sympathy. Furthermore, none of the older child programmes, outlined in Table 2.4, assessed empathy or sympathy.

Emotional knowledge has been found to facilitate high levels of empathy (Eisenberg et al., 1993). In order to experience vicariously the same or similar cognitions and emotions to those that another individual is experiencing, one is required to detect the signals or expressions of emotion in the behaviour of others. Given the limited empirical links between emotional knowledge and empathy, the results from these trials contribute to a growing area of research in applied psychology and education.

The present findings are consistent with SIP theory. Theoretically, having high emotional knowledge leads children to accurately encode others’ emotional signals, which in turn leads to low hostile attribution of intent and the evocation of empathy and sympathy (Crick & Dodge, 1996). Me and My Mates was based on theories about children’s development of emotional competence and SIP theory and the empirical results indicate that the programme appears to have effectively integrated these theories into a successful learning context for children.

Previous research using the EBEI had high internal reliability (Eisenberg et al., 1996). The EBEI was modified in the present study to cater for appropriate non-verbal and alternative responses. In the present study, the EBEI had moderate to high internal reliability, providing support for the adjustments made to the scale. The reliable and valid measurement of empathy and sympathy in this study is a contribution to knowledge in this area of applied psychology and education.

6.5 Prosocial Behaviour

Prosocial behaviour data from both trials also provided support for the effectiveness of Me and My Mates in increasing and sustaining children’s emotional
and social competence. Prosocial behaviour increased at a significantly higher rate over time in the experimental groups compared to the control groups. In both trials, prosocial behaviour increased post-intervention then levelled off. Effect sizes were medium to large in Trial One and large in Trial Two. In addition, prosocial behaviour was significantly higher in the experimental groups compared to the control groups at both post-intervention and at three-month follow-up. On average, children who participated in Me and My Mates behaved more prosocially immediately after the programme and three-months later compared to children who did not.

Three of the ten pre-primary programmes reviewed in section 2.4 measured prosocial behaviour. The first programme, Incredible Years, was evaluated by a single trial using direct child assessments with only high risk students. Prosocial behaviour increased in this group of students (Webster-Stratton et al., 2008). The results from the Incredible Years trial provided evidence that high-risk children’s prosocial behaviour in pre-primary could be enhanced by emotional and social competence programmes. Extending on the findings from Incredible Years, the trials of Me and My Mates found significant increases in prosocial behaviour across all children in both experimental groups.

Also, the second programme, Strong Start was evaluated by parents’ and teachers’ ratings. They reported increases in prosocial behaviour (Kramer et al., 2010). However, the findings could have been because of maturation, as there was no control group during the period of the study.

The third programme PATHS used the Challenging Situation Task and found significant increases in prosocial behaviour in children who were in the experimental group, as compared to the control group (Bierman et al., 2008). Given that the same measure was used in the PATHS evaluation as in this study, the results are comparable.
Both programme interventions were found to successfully increase children’s prosocial behaviour. However, extending the results of *PATHS*, prosocial behaviour in children completing Me and My Mates was significantly greater compared to the control groups when measured at three-month follow-up.

Some studies with older children have measured prosocial behaviour. In the *Second Step* evaluation, for example, there were observed increases in prosocial behaviour in grade two and grade three children in the United States. However, parent and teacher results did not report significant changes, and findings differed across grades (Grossman et al., 1997). Teacher reports did support increases in prosocial behaviour after the *Making Choices* programme involving students with an average age of 8.5 years (Smokowski et al., 2004). However, teacher reports may have been biased given they knew which students were participating in the intervention and which were not. Nevertheless, the current study does provide some support for the limited evidence from the three older child programmes that children’s behaviour is amenable to change through specifically focused emotional and social competence programmes.

Prosocial behavioural changes found in the two trials of Me and My Mates could be attributed to factors such as five-year-old children’s developmental readiness or the programme content or delivery. When children are in pre-primary school, they encounter new rules and expectations from teachers and peers. Therefore, enhancing prosocial behaviour during this period—when children are learning how to behave in these new situations—is arguably more likely to lead to more prosocial behaviour later in school years.

In terms of theoretical implications, the findings of these two trials are consistent with each step in SIP theory. That is, children who understand emotions in others consider ambiguous socially negative situations as accidental, have high levels of
sympathy and empathy and are more likely to respond by engaging in prosocial behaviour (Crick & Dodge, 1996; Schultz et al., 2004). Other programme evaluations have not been able to demonstrate empirical evidence for these components of SIP theory, which is a limitation of applied research that links theory and practice in this area.

6.6 Aggressive Behaviour

Data from both trials show that aggressive behaviour decreased at a significantly higher rate over time in the experimental groups compared to the control group. In both trials, aggressive behaviour decreased at post-intervention. In Trial One, aggressive behaviour continued to decrease between post-intervention and at three-month follow-up, and in Trial Two, lower aggressive behaviour was sustained at three-month follow-up. In both trials, effect sizes were small to medium. Thus, Me and My Mates was successful in reducing and sustaining lower levels of aggressive behaviour in pre-primary children, compared to those who did not receive the programme. Furthermore, aggressive behaviour was significantly lower in the experimental group, compared to the control group, at both post-intervention and at three-month follow-up. Children who participated in Me and My Mates on average behaved less aggressively immediately after the programme and up to three-months later compared to those who did not participate.

Reductions in aggressive behaviour after a non-selective classroom-based programme accord with the results of other pre-primary and older child studies. PATHS (Bierman et al., 2008), for example, assessed children’s behaviour with the Challenging Situation Task and found significant decreases in aggressive behaviour in the experimental group compared to the control group after the programme at post-intervention. The results from PATHS and the results from this study demonstrate that
pre-primary school emotional and social competence programmes can successfully
decrease aggression. In other programme evaluations, such as the original Incredible
Years (Webster-Stratton et al., 2008), the Modified Incredible Years (Baker-Henningham et al., 2009) and A Social-Emotional Intervention (Denham & Burton,
1996), direct behavioural observations found decreases in aggressive behaviour in
children who participated. However, these three studies consisted of a one programme
trial and did not evaluate long-term outcomes. Nevertheless, they confirm that pre-
primary children’s aggressive behaviour can be significantly reduced by specifically
focused class-based programmes.

Using observation measures at post-intervention, older child programme
evaluations have also found decreases in aggressive behaviour, for example, The Good
Behaviour Game (van Lier et al., 2004), involving grade one and grade two students
(average age 6.9 years old), and Second Step (Grossman et al., 1997) involving grade
two and three students in the United States. However, assessments in The Good
Behaviour Game were not completed by independent observers; therefore, the results
need to be interpreted taking this into consideration. Further, no follow-up data were
collected. The Second Step evaluation used independent observers and found that
physical aggression in the classroom remained significantly low, although other
measures used did not support the significant finding (Grossman et al., 1997).

Teacher reports showed decreases in aggressive behaviour at post-intervention
with grade three students (average age 8.5 years) in the Making Choices programme
(Smokowski et al., 2004). In other pre-primary school programme evaluations involving
teacher reports, decreases in aggressive behaviour at post-intervention were also found,
for example, I Can Problem Solve (Shure & Spivack, 1982), Peace Builders (Flannery
et al., 2003) and Sheffield Bullying Project (Smith & Sharp, 1994). However, teacher
report data need to be interpreted with caution, given that teachers have been found to be less reliable informants of children’s emotional and social competence, compared to children themselves (Reynolds & Graves, 1989; Stark, Reynolds & Kaslow, 1987). The teacher reports rely solely on a limited range of interactions with children. Also, in the above evaluations teachers were administering the programmes, and their involvement may have biased their reports.

Child self-report data show decreases in aggression at post-intervention in the *Responding in Peaceful and Positive Ways* programme with grade seven students (average age 12.8 years); however, these decreases were not maintained at follow-up (Farrell et al., 2003). A large body of literature (Bullis & Walker, 1994; Eron, 1990; Eron & Huesmann, 1990; Francis et al., 1991; Hart et al., 1997; Hawkins et al., 2000; Henry et al., 1996; Kokko & Pulkkinen, 2000; Loeber & Farrington, 1998; Moffitt et al., 2002; Newman et al., 1997; Schaeffer et al., 2003; Temchef et al., 2008; Tolan & Gorman-Smith, 1998; Tremblay et al., 1992, 1995; Walker et al., 1995) has illustrated that children’s aggressive behaviour from between three and ten years of age remains fairly stable into adulthood. Therefore, perhaps decreases in children’s aggressive behaviour were not maintained at follow-up in *Responding in Peaceful and Positive Ways* because of the older age of the children involved.

In accordance with SIP theory, a positive benefit of low hostile attribution of intent is less aggressive behaviour (Crick & Dodge, 1996; Webster-Stratton & Lindsay, 1999). Aggressive behaviour is associated with low emotional and social competence (Denham et al., 2002; Flannery et al., 2003), bullying among children and the development of externalising behaviour problems (Camodeca et al., 2002; Webster-Stratton & Lindsay, 1999). Peer rejection of aggressive children has been found to be associated with their higher levels of future aggression, delinquency, anxiety and
depression (Crick et al., 1997; Guerra et al., 2004). Aggressive children have also been found to have lower levels of empathy (Schultz et al., 2004). As the Me and My Mates programme facilitated low hostile attribution of intent, reduced aggressive behaviour and increased prosocial behaviour, these findings suggest that consequences of chronic aggressive behaviour during school years may be reduced by targeted early interventions. Certainly, the effectiveness of early intervention with pre-primary aged children that targets aggressive behaviour has been confirmed by the current study.

6.7 Teacher and Parent Reports of Emotional and Social Competence

Teacher and parents reports partially supported that children who participated in Me and My Mates showed significantly greater increases in emotional and social competence than children who did not. Teacher reports indicated that emotional and social competence increased at a significantly higher rate over time in the experimental group compared to the control group. The effect size was large. Emotional and social competencies increased slightly between pre-intervention and post-intervention, and then increased steeply between post-intervention and three-month follow-up. According to both teacher and parent reports, while emotional and social competencies were not significantly higher in the experimental group compared to the control group at post-intervention, emotional and social competencies were significantly higher in the experimental group, compared to the control group, at three-month follow-up.

Consistent with child responses, teachers rated emotional and social competencies as increasing at a significantly higher rate over time, and were significantly greater in children who participated in the Me and My Mates programme at three-month follow-up. The teacher reports on emotional and social competencies concord with child results, providing some evidence for the generalisation of behavioural change. However, these results should be interpreted with caution. In
Western Australian classrooms with between 28 to 32 children, including children with developmental disabilities, it is a challenge for teachers to spend time with children in small groups or individually, and these restrictions decrease the chances of teachers noticing significant behavioural changes in individuals. The teacher reports of children’s emotional and social competencies in the present study were significant with a large effect size, providing good evidence that some marked behavioural improvements occurred in the class as a whole.

However, teachers’ ratings did not show a significant increase in emotional and social competencies at post-intervention in either the experimental or control group. Reasons for this could be that although the importance of the questionnaires had been explained to teachers by the researcher and the teachers had been advised to complete one set daily over four weeks, most teachers completed the questionnaires in one sitting. The length of the questionnaire might have been too long for teachers to complete with attention to detail at all three assessment periods. Further, some of the items on the questionnaire may have been difficult for teachers to judge, for example, ‘Able to identify bodily sensations associated with feeling happy, sad, angry and scared’. In future studies, some questions could be removed, making the questionnaire shorter as well as more specific to behaviours teachers were able to observe. Additionally, the Likert-type scale could be increased from 0–6 to 0–7, potentially making the questionnaire more sensitive to change.

According to parent ratings, emotional and social competencies significantly increased at three-month follow-up in the experimental groups. These results are consistent with direct child assessments and teacher reports. The parents’ ratings are largely based on their interactions with their children at home, and therefore, these findings again indicate that emotional and social competencies were generalised. None
of the programme evaluations reviewed in section 2.4 included parent reports as an assessment of emotional and social competencies in pre-primary children.

In addition, there were no significant differences in emotional and social competence between experimental and control schools. An explanation for the non-significant finding among parents could be the manner in which the ESSQ questionnaires were completed. Many parents had limited English skills, and therefore, interpreters were made available by the school to assist these parents. In this process, there is the possibility that some information was lost in translation. Further, as in the teachers’ ESSQ, some of the items may have been difficult for parents to judge, such as, ‘Able to identify emotions associated with music, tone of voices or other sounds’, and it is recommended that these items be removed in future studies. Despite these limitations, the ESSQ, which was developed specifically for use in this study, had high reliability and face validity as an assessment of whether the competencies that the child learnt from the programme were noticeable by teachers and parents.

6.8 Teacher and Parent Reports of Emotional and Behavioural Problems

The second research question investigated whether children who participate in Me and My Mates show significantly lower rates in emotional and behavioural problems than children who do not. The results provided partial support for the second research question. The results from the teacher SDQ questionnaires, compared to the parent SDQ questionnaires, were paradoxical. According to teachers, emotional and behaviour problems increased in the experimental schools, whereas in the control schools, emotional and behaviour problems remained stable. These results are inconsistent with previous research findings that suggest that emotionally and socially competent children have fewer emotional and behaviour problems (Cole & Hall, 2008). Conversely, parents’ responses showed that emotional and behaviour problems
remained stable in the experimental schools, whereas in the control schools, emotional and behaviour problems increased. However, this finding was not significant. The parent and teacher SDQ has a scale range of zero to two, making the items potentially less sensitive to change. A recommendation for future replication studies is to increase the number of response options on the SDQ scale to potentially increase sensitivity to change.

Given that the scale ranged from zero to two, many teachers ticked one, possibly because of their time constraints when completing the questionnaires. The Australian, American and English SDQ norms suggest that most children’s total SDQ score lies between 5.5 and 8. In this study, the means for teachers’ ratings of emotional and behavioural problems in the control group and for parents in both experimental and control groups were close to 8. One possible explanation for the means being closer to 8 than 5.5 is that low SES schools have been found to be associated with more behavioural problems (Bradley & Corwyn, 2002). However, the means for teachers’ ratings in the experimental schools were much higher (9.41–12.65) than this.

Consistent with parents’ reported results in the present study, Al’s Pal’s: Kids Making Healthy Choices evaluation reported that teachers of their experimental group found that behavioural problems remained constant over time, while behavioural problems increased in the control group (Lynch et al., 2004). In addition, parent reports in the PATHS evaluation were not significantly different between groups, but there were trends towards decreases in behavioural problems in the experimental group (Bierman et al., 2008). Other programmes that relied on teachers and parents as informants have found mixed results. For instance, teachers’ ratings supported conclusions that there were decreases in aggressive behaviour in children participating in Peace Builders (Flannery et al., 2003), Sheffield Bullying Project (Smith & Sharp, 1994), and Making
Choices (Smokowski et al., 2004). Parents’ reports supported findings of fewer internalising emotional problems for children participating in Aussie Optimism, (Roberts et al., 2010). However, child self-report data on emotional problems in Aussie Optimism did not significantly differ according to intervention group status and parent’s findings were not maintained at follow-up. Overall, the teacher and parent questionnaire results illustrate that some studies have found significant behavioural improvements. Conversely, in the Second Step evaluation, there were no significant findings according to either parent or teacher reports, whereas behavioural observations indicated increases in prosocial behaviour and decreases in aggression (Grossman et al., 1997). It is important to look at results from all respondents across all variables measured to weight the overall results of a complex, multi-element programme, such as Me and My Mates.

The research outlined in section 4.2 on measurement concluded that children are the most reliable informants (Wigelsworth et al., 2010). Some researchers have concluded that the information obtained from children themselves was the most reliable source of data, and therefore, the children’s reports alone should be the principal source of information (Reich & Earls, 1987; Reynolds & Graves, 1989; Stark et al., 1987). The results in Trial One showed marked discrepancies between children’s, parents’ and teachers’ responses. Relatively low concordance has been found between teacher, parent and child responses in this area of research. For example, Humphrey et al. (2008) found correlations as low as .25 between teacher, parent and child ratings, indicating only six per cent shared variance for responses. Additionally, a meta-analysis obtained effect sizes from 74 studies containing information on cross-informant rating from children, peers, parents and teachers (Renk & Phares, 2004). The results showed that studies examining the correspondence of the child with the reports of parent, teacher or peer informants had average effect sizes that were small in magnitude. These results indicate
that it is fundamental to be cautious when selecting informants in programme evaluation. The children’s assessment data in the present study was viewed as the most reliable. However, direct observations of child behaviours would have provided stronger validity checks of this assumption.

6.9 Teacher and Parent Feedback

Support for the programme’s success in improving children’s emotional and social competencies were made by teachers’ and parents’ comments in response to the four additional questions asked at post-intervention and three-month follow-up (For example, ‘Has the Me and My Mates programme reduced problems?’ and ‘Has the Me and My Mates programme helped in other ways, e.g., making the problems more bearable’?, ‘Since the Me and My Mates programme, have your child’s emotional skills improved, e.g., understanding feelings or talking about feelings?’ and ‘Since the Me and My Mates programme, have your child’s social skills improved, e.g., plays nicely with other children or shows consideration of other children’s feelings?’). Teachers and parents generally reported observable increases in children’s emotional and social competencies. Overall, the programme was ‘well received’ by teachers, parents and children.

6.10 Continued Use of Emotional Regulation Techniques

The third research question investigated whether a high percentage of children who participate in Me and My Mates continue to use the emotional regulation techniques taught three-months after the programme. At three-month follow-up, 80% of children in Trial One and 91% of children in Trial Two still used the two techniques to regulate their emotions, providing further evidence that activities such as the three-minute happy song and the thirty-second imagery and breathing exercise were
developmentally appropriate and easy to use for pre-primary children (Qu & Zelazo, 2007; Thompson 1994). One child said that he used the techniques taught to regulate his emotions, e.g., ‘when someone is chasing me like a bully and I feel scared’. Children being able to identify when they are feeling sad, angry or scared and then soothe themselves can be considered a buffer against developing a more extreme form of clinical depression or anxiety (Cole & Hall, 2008; Seligman et al., 1995).

It is worth noting that emotional regulation was not assessed in any of the child programme evaluations discussed in section 2.4. Although emotional regulation is a challenging outcome variable to assess and measure, and there were limitations in the way emotional regulation was assessed in the present study, a high proportion of children reported using the emotional regulation techniques taught at three-month follow-up, indicating that this is a key area to be targeted in measurement for future research.

6.11 Comparisons between Trial One and Trial Two

The fourth research question investigated whether improvements made to Me and My Mates in Trial Two led to significantly greater improvements in children’s emotional and social competencies compared to Trial One. The changes to Me and My Mates in Trial Two resulted in significantly greater increases in children’s emotional and social competence compared to Trial One. In addition, these changes resulted in significantly improved scores at post-intervention and three-month follow-up and effect sizes were larger for most variables in Trial Two.
The improvements were as follows:

1. Emotional knowledge increased at an accelerated rate between pre-intervention and post-intervention in Trial Two compared to Trial One with large and medium effect size, respectively.

2. When comparing the experimental groups, hostile attribution of intent decreased at a steeper rate in Trial Two compared to Trial One. Further, hostile attribution of intent was significantly lower in Trial Two compared to Trial One at both post-intervention and three-month follow-up with large and small effect sizes, respectively.

3. Between pre-intervention and post-intervention, empathy and sympathy increased at a steeper rate in the experimental group in Trial Two compared to the experimental group in Trial One with large and medium effect sizes, respectively.

4. Prosocial behaviour increased at a steeper rate between pre-intervention and post-intervention in the experimental group in Trial Two compared to the experimental group in Trial One and prosocial behaviour was significantly higher in Trial Two compared to Trial One at both post-intervention and three-month follow-up. The effect sizes for prosocial behaviour were medium to large in Trial One and large in Trial Two.

5. Aggressive behaviour decreased significantly over time in both experimental groups in Trial One and Trial Two. However, there were no significant differences between the experimental groups in the two trials. In both trials, there were small to medium effect sizes for reductions in aggressive behaviour.
Taken together, the above results demonstrate that children in the experimental group in Trial Two made greater improvements in emotional and social competence compared to children in the experimental group in Trial One. Future research would need to examine which of the possible programme changes contributed to these significant changes. Possibilities could be the procedural changes made, such as creating smaller groups (Cooper, Charlton, Valentine & Muhlenbruck, 2000; Odden, 1991); shorter session times (Campbell & Maertans, 1988; Lengel & Kuczala, 2010); providing more individual positive reinforcement from the researcher, volunteer, teachers, teaching assistants and peers (Bandura, 1986; Hastings et al., 2000; Johnson, 2001; McGrath, et al., 2003); catering for generalisability by pausing activities to problem-solve scenarios that occurred during the session and using the emotional and social competencies that were taught (Lovaas & Smith, 1989); or including demonstrating and modelling by teachers involved as co-facilitators.

6.12 Methodological Strengths and Limitations

There are particular strengths in the present study that provide a significant contribution to knowledge in the area of emotional and social competence in pre-primary school-aged children. One of the strengths is that the evaluation showed positive effects of Me and My Mates at both post-intervention and at three-month follow-up in two trials. Another strength is that outcomes were assessed directly through the children themselves compared to research in the area which relies solely on parent and teacher report. Other strengths include the use of experimental and control groups to ascertain whether changes in the experimental groups could be directly attributed to the programme and not to maturation, and the use of well-described replicable evidence-based intervention procedures. Both the experimental and control groups were from the same school in Trial 2 but from different schools in Trial 1. The
strengths of this design in Trial 2 include the same teacher and classroom environment; however, weaknesses are possible time effects from 2008 and 2009.

A number of methodological limitations should be addressed. Me and My Mates was a selective intervention implemented in low SES suburbs. The extent to which these findings can be extrapolated to children from all SES suburbs is yet to be examined. While research demonstrates that children in low SES suburbs are at greater risk of negative outcomes because of poor emotional and social competence (AEDI, 2008; Bradley & Corwyn, 2002; Huffman, et al., 2001; Keenan, et al., 1997), children from all SES suburbs are susceptible to mental health issues resulting from deficits in emotional and social competencies.

Methodological limitations included not involving parents in a collaborative manner during programme delivery. Research demonstrates the positive impact on children’s emotional and social competence when parents and teachers work cooperatively and collaboratively towards common goals (Burton, 1992; Epstein, 1992; Henderson & Berla, 1994; Simons-Morton & Crump, 2003). In this research it was not possible to include parents in a more active way because of restrictions placed on parent involvement by teachers within the schools. For example, it is a state legal requirement that parents had to apply and pay for a ‘working with children check’ in order to screen for any criminal charges, to interact with any children in the classroom. Given that the schools were in low SES suburbs, teachers did not wish to impose this expectation on parents. Further, teachers felt that as many parents did not speak English or worked full time, they would not feel comfortable inviting or expecting parents to attend sessions. It could have been beneficial for children to take home activities from each Me and My Mates session and share with parents, who would then sign a form saying they had practiced the activity. Unfortunately, teachers reported that there was low compliance in
parents signing forms saying they completed homework sent home for school monitoring purposes, and the teachers did not support additional homework activities going home for parents to sign.

Although attempts were made to measure treatment integrity, programme integrity was not measured in a more rigorous manner. This is a common problem in research in this field where less than five per cent of over 1200 published prevention studies have provided data on programme implementation (Durlak, 1997). Programme integrity may have accounted for the significant improvements in children’s emotional and social competence in Trial Two, as teachers were involved more collaboratively in delivery, supervision and programme feedback.

A further limitation is that the researcher undertook one-on-one assessments with each child and facilitated programme sessions. It would have been preferable for child assessments to be completed by an individual who was blind to the group the child was in. Within the scope of this thesis, there were no resources to employ other assessors, and unfortunately, this potential bias could not be controlled in any systematic manner. Teachers and parents were also aware of the programme implementation, which may have biased the results. However, ethically, parents were required to be informed whether their children were receiving the emotional and social competence programme, and therefore, no appropriate control was possible.

The Hostile Attribution of Intent child measure had low to moderate internal reliability in the present study and lower reliability compared to past research (Runions & Keating, 2007). Most assessments were presented in a developmentally appropriate, interactive game format. However, as the Hostile Attribution of Intent measure was the most difficult of the four child measures used, reliability may have been compromised.
A limitation of this study is that direct observations of behaviour were not used to assess the generalisation of children’s emotional and social competence. Direct observations have high validity (Webster-Stratton & Lindsay, 1999), but are expensive and time consuming to administer and analyse. The peer nominations method (Perren & Alsaker, 2006) could also have been used to quantify the growth of positive relationships between children and their formation of friendships or incidences of bullying.

Finally, assessing the longer term impact of Me and My Mates would have been advantageous. However, only three-month follow-ups were able to be completed within the scope of the PhD thesis.

6.13 Directions for Future Research

Evaluating the longer-term influence of the Me and my Mates programme on children’s emotional and social competence is the main goal of future research. Longitudinal research on the influence of Me and My Mates will provide evidence as to whether children’s early life trajectories can be positively changed by enhancing emotional and social competence through pre-primary school programmes. Other researchers have found that successful and independent interaction between pre-primary school children is a strong predictor of later mental health and wellbeing (Denham et al., 2003; Walsh et al., 2006) and intervention with five year olds is more likely to prevent problems later in life (Cole & Hall, 2008; Hazell, 2007; Tolan & Dodge, 2005).

Me and My Mates may have implications for improved mental health in a range of areas that were unable to be measured. For example, emotionally and socially competent children have been found to be more resilient in coping with day to day life pressures (Goldstein & Brooks, 2005) and adversities (Asawa et al., 2008; Degarmo & Forgatch, 2005). Further, high levels of emotional and social competence, sympathy,
empathy and prosocial behaviour are associated with making and sustaining positive friendships (Denham et al., 1990; Izard et al., 2001; Miller, et al., 2005) and higher levels of self-esteem (Seligman et al., 1995). Investigating the impact of Me and My Mates and the relationships between emotional and social competence and a greater range of mental health variables is suggested for future research.

6.13.1 Understanding emotions in self. It was proposed that a precursor to the development of emotional competence is children understanding their own emotions. This understanding could not be assessed in the programme evaluation, as there were no existing measures of this type. It would be advantageous for future research to develop child appropriate measures to assess five-year-old children’s understanding of their own emotions. This measure could qualify the theoretical links between understanding emotions in self and emotional competence, and the impact of emotional and social competence programmes on understanding emotions in self.

6.13.2 Emotional expressivity. Emotional expressivity is an important component of emotional competence, which was not assessed in this study. The most reliable and valid manner to assess emotional expressivity is likely to be through direct observation of children in natural school and home environments. Future research on Me and My Mates could use direct observation of behaviours that examine the proposed theoretical sequential links of emotional and social competence as well as assess the impact of the programme on emotional expressivity.

6.13.3 Emotional knowledge. Of the three components of emotional competence, emotional knowledge is the most researched. The reason for this is the positive associations between emotional knowledge and social competence. Additionally, it could be argued that emotional knowledge is easier to assess than emotional expressivity or emotional regulation. There are various measures for
emotional knowledge for five-year-old children. However, as programme evaluations have used different instruments to measure emotional knowledge, direct comparisons of results are difficult. It would be helpful if future research compared different emotional knowledge measures with five-year-old children. The outcome could be the emergence of a reliable and valid emotional knowledge instrument that could be used across programme evaluation studies and enable direct comparisons of outcomes.

6.13.4 Emotional regulation. Emotional regulation is a key variable of emotional competence. Emotional dysregulation is evident in the symptom criteria and associated features of various disorders identified in DSM-IV-TR (American Psychiatric Association, 2000) and ICD-10 (World Health Organisation, 2007) and it is a predictor of social maladjustment (Cole & Hall, 2008; Schaeffer, et al., 2003). Given the high proportion of children in the present study who reported that they used the emotional regulation techniques at three-month follow-up, emotional regulation appears as though it is a key area to be targeted in future research. The development of a reliable and valid measure to assess emotional regulation could facilitate comparisons between groups. Moreover, examining the longer term outcomes of the relationships between using emotional regulation techniques and the development of psychopathology and social maladjustment would be extremely valuable in relation to investigating the impact of pre-primary school intervention on future mental health and social outcomes.

6.13.5 Attribution of intent. It is difficult to assess five-year-old children’s cognitions. The Hostile Attribution of Intent measure had moderate to low reliability in this study. The existing Hostile Attribution of Intent measure could be made more developmentally appropriate by having sequential pictures and a non-verbal and pictorial response format. If the Hostile Attribution of Intent measure was appropriately modified and its reliability increased, it would be useful for future programme
evaluations to assess children’s Hostile Attribution of Intent, given that cognitive theories purport that our thoughts determine our behaviour. Theoretical and empirical findings of the present study and past research support a positive relationship between Hostile Attribution of Intent and aggression. As longitudinal research, outlined in section 2.3, demonstrates that aggression is fairly stable between the ages of three to ten years, it would be highly beneficial for targeted interventions to reliably assess Hostile Attribution of Intent.

6.13.6 Empathy and sympathy. Other programme evaluation studies have not measured children’s empathy and sympathy, yet empathy and sympathy are important variables in examining positive associations with psychopathology. Not having the capacity to feel and display empathy and sympathy is a core characteristic of various personality disorders (American Psychiatric Association, 2000; World Health Organisation, 2007). Therefore, it would be beneficial for future emotional and social competence programme evaluations to assess empathy and sympathy, especially as the Me and My Mates programme has demonstrated that increases in empathy and sympathy are achievable with a developmentally appropriate intervention programme.

6.13.7 Prosocial and aggressive behaviour. While direct behavioural observations by independent observers can have high validity (Webster-Stratton & Lindsay, 1999), such observations could not be undertaken because of budget and time constraints. Future research could undertake direct behavioural observations to provide evidence regarding the generalisation of skills in Me and My Mates.

6.14 Concluding Comments

This study described the development of a Western Australian emotional and social competence programme for pre-primary children from low SES suburbs that resulted in increases in emotional and social competence in five-year-old children. Me
and My Mates’ empirical results substantiated its proposed theoretical foundations, providing some support for the literature on emotional competence, Crick and Dodge’s (1994) reformulated SIP model, and the pertinent variables identified as comprising emotional and social competence; namely, understanding emotions in self, emotional expressivity, emotional knowledge, emotional regulation, attribution of intent, empathy, sympathy, increased prosocial behaviour and decreased aggressive behaviour. Furthermore, the results from this Australian study were superior to those of other international emotional and social competence programme evaluations, contributing to the growing field of early intervention in the areas of applied educational, developmental, clinical and school psychology.

A review of the literature supported the notion that enhancing emotional and social competence in pre-primary children is fundamental because of four propositions: pre-primary age is a pivotal developmental and learning period regarding emotional and social competence; children from low SES suburbs are exposed to greater risks for impediments in emotional and social competence; evidence based social learning techniques can improve emotional and social competence; and there are short and long-term advantages of enhancing emotional and social competence in pre-primary school-aged children.

In addition, this thesis contributes to the measurement of emotional and social competence. Section 4.1.2 highlighted the importance of using direct child measures as they are less prone to biases. The uses of multiple informants was a strength of this study and the findings highlight that it is fundamental to choose what sources of information will be prioritised. In particular, the Emotional and Social Skill Questionnaire was constructed to evaluate whether the emotional and social competencies taught were learnt. While the scale had high reliability when completed
by both parents and teachers, subsequent trials could modify and improve the questionnaire, as suggested in section 6.7. Various direct child measures were modified, as described in section 4.1.2, and used in this programme evaluation. Direct child measures are less vulnerable to bias than adult ratings and, therefore, their use in these studies was a strength of the present study, which contributes to knowledge in the area of programme evaluation.

The fact that the results of two programme trials supported the programme’s theoretical and empirical foundations gives credibility to Me and My Mates. In two trials, pre-primary children who participated in the Me and My Mates programme had enhanced emotional and social competence at a significantly higher rate over time and these changes were sustained three months after the programme. Additionally, children’s emotional and social competencies in both experimental groups were significantly higher than the control groups at both post-intervention and three-month follow-up. On average, children who participated in Me and My Mates had significantly greater emotional and social competence at post-intervention and three-month follow-up. The study contributes to the limited whole-of-class programmes that target emotional and social competence in pre-primary school-aged children. Moreover, improvements were made to Me and My Mates that resulted in significantly greater emotional and social competence in children who participated in Trial Two compared to Trial One.

Overall, this programme evaluation comprised two trials, the results of which provided evidence that the Me and My Mates emotional and social competence programme for pre-primary school students from low SES suburbs is effective. This Western Australian pre-primary programme clearly benefits children by increasing emotional knowledge, emotional regulation, sympathy, empathy and prosocial
behaviour and by decreasing hostile attribution of intent and aggressive behaviour. Me and My Mates has the potential to be implemented successfully across more schools in Western Australia. It will be the goal of future research to investigate longer term outcomes for children who completed the programme in their pre-primary years.
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Appendices
Appendix A

‘Me and My Mates’ Programme Manual
Session One: Week 1, (50 minutes)

Introduction: (10 minutes)
Good Morning Pre-primary. I have a club called, “Me and My Mates,” and you all get to be in the “Me and My Mates” club. Facilitator and volunteer are going to come in every week this Term and when I come in, we are going to do activities about feelings and friends or in other words Me and My Mates.

First I’d like to go through some rules about when we come in, I would like everyone to feel safe:

1. **Everyone feels safe.**
   - One person talks at a time
   - Everyone listens when someone is talking
   - No teasing, put downs
   - When I ring Betsy the Bell everyone is quiet and looks at me

4 stations

Make a badge: (10 minutes) *Colour in and decorate with pencils*
To be in the “Me and My Mates” club we all need a badge to wear for whenever I come in. Just like mine 😊 So I have printed all your names on badge paper. You all get to decorate your badge however you would like to. (laminate, hole punch & thread cotton)

Decorate a sock puppet: (10 minutes) decorate with texta’s
*I puppet per a child with Google Eyes, Nose & hair*
I have a special friend. This is my puppet and her name is Rosey. Rosey has two eyes, a nose, and some hair. You all get to make a special friend and puppet. Once you are done, put your hand up & we will write your name on your puppet.

Make a thermometer: (10 minutes)
*1 Pop stick a child
Blue tac
Colour in 4 thermometers*
This is Thermo, the feelings thermometer. Thermo shows us that sometimes we feel a little happy, which is a 1 on a happiness scale, a little more happy, which is 5 on a happiness scale and very happy, which is 10 on a happiness scale, lets count up the thermometer together; go through all emotions. (give children folders)

Fantastic Feeling Fingers (10 minutes)
Put your hand up if you have ever felt sad, angry, scared? We all feel sad, angry and scared at times. When we are feeling sad, angry or scared what are something’s we can do to make ourselves feel happy? I’ve got something very special we can to feel happy. I feel happy when I play on swings. I want you all to think of a time you feel happy. When you have thought of a time, I want you to put up your fantastic feeling fingers up like this facing me. Breathe in for 5, Breathe out for 5. You can use your fantastic feeling fingers wherever you are, so you feel happy.

Give each child a sticker for learning FFF.
MODULE 1:
Emotional Competence
**Session 2: Week 1 (50 minute session)**

**Learning Outcomes**

**Happy**
- “what does happy look like, feel like, sound like, act like?”
- “When I feel happy, when others feel happy?”

**Put DVD and CD in players. Put body maps and pencils on tables.**

Good Morning Pre-primaries. Welcome to the Me and My Mates club. We post our mail in the Australia post-box & then the postman collects it & we get mail at home. Has anyone ever posted a letter in the mail box or received mail? You are all going to receive mail today. Please raise your hand as I call out your name & volunteer will hand you your Me and My Mates Club Badge from the post. Our topic for today is feeling happy (show mood dude). First we are going to watch feeling happy with Barney and Friends.

**TV show: Barney & Friends “Happy section” (0 - 5 minutes)**

Barney and Friends showed us how we feel when we are happy. Barney also showed us how we all can feel happy, sad, angry and scared (use hand puppet). Barney also said we can feel many feelings all in one day. It is important not to stay, angry, scared or sad for long as feeling happy is much better (do facial expressions).

We are now going to do some activities. **2 Groups for role play & flash cards**

**Flash cards: Blank levels of questioning (5 minutes)**
What is the bear/person doing?
How do you think the bear/person feels when (girl is eating icecream)?
How do we know the bear/person is feeling happy? (body clues such as smiling).
How do we show we are happy?

**Discuss & role play happy behaviours in TV show: (5 minutes)**

**When you are happy:**
Face: smile, big happy eyes, laugh, sing
Body: head high, skip

**3 Happy Role Plays standing in a circle**
**Give children a number 1 or 2, everyone will get a turn at all roles.**

Put your hand up if you feel happy when it’s your birthday and you get a present? Put your hand up if you feel happy to give your friend a present on their birthday?

**Volunteer & facilitator act together**

1) Pretend it’s your birthday and you get a present
2) Pretend it’s your friend’s birthday and you give them a present.
   You know I am happy, as I am smiling, I speak excitedly, my eyes light up, my hands go up.
   Volunteer and facilitator go around & give children a present, praise each child’s acting happy.
   Put children in 2 lines & all together
   Number 1’s pretend it’s your birthday and number 2’s pretend that you have a present to give your friend for their birthday, then swap.

   Volunteer & facilitator act together
   Now change roles.

4) Pretend that you are playing with a ball and you ask a friend to play with you & your friend says yes (time)

5) Pretend that you get a merit certificate and your friend says well done (time)

Read Story: Now I am going to read a story called: “When I’m feeling happy.”
Trace Moroney (5 minutes)

Levels of questioning
What is the rabbit doing?
How do you think the rabbit feels when the rabbit is bouncing?
How do we know the rabbit is feeling happy? (body clues such as smiling, hands in air).
How do we show we are happy?

Barney sang if you are happy & you know it. Do you know if you are happy & you know it? Lets sing together.

SING: If You’re Happy And You Know It (5 minutes)

If you’re happy and you know it clap your hands.
If you’re happy and you know it clap your hands.
If you’re happy and you know it and you really want to show it,
If you’re happy and you know it clap your hands.
(show a smile)
If you’re happy and you know it show a smile.
If you’re happy and you know it show a smile.
If you’re happy and you know it and you really want to show it,
If you’re happy and you know it show a smile.
(laugh out loud, hahaha)
If you’re happy and you know it laugh out loud, hahaha
If you’re happy and you know it laugh out loud, hahaha
If you’re happy and you know it and you really want to show it,
If you’re happy and you know it laugh out loud, hahaha
(say hooray)
If you’re happy and you know it say “Hooray!”
If you’re happy and you know it say “Hooray!”
If you’re happy and you know it and you really want to show it,
If you’re happy and you know it say “Hooray!”

Hand out folders and divide class into 2 Groups: Puppets and Drawings
**Play Game in a circle:**
Rosey feels a ‘little happy’ when she watches a show she likes on tv, ‘a little more happy’ when she plays with her friends and “very happy” when she shares her toys with her brother.

Everyone tell me what makes your sock puppet happy?

How much happy? Show number range on thermometer. (5 minutes)

**Drawing activity** (5 minutes)
Now we are going to do some drawing. I want you all to think of a time you felt happy. I feel happy when I play on swings. Show my body map.

Body Mapping “what does happy look like, feel like, sound like, act like?”
Facial Expressions: For example: Smile, laugh, big eyes up, head up, rosey cheeks, singing
Feels: For example: Warm, colourful, jumping, skipping
Thoughts:
Behaviour: For example: Do nice things for self & others

**SING:** Zip-a-dee-doo-dah (4 minutes)
I am going to teach you all a song called Zip-a-dee-doo-dah. This song is a happy song, so whenever you are not feeling happy or want to feel very happy you can sing this song.

Zip-a-dee-doo-dah, zip-a-dee-ay,
My, oh, my, what a wonderful day.
Plenty of sunshine headin’ my way,
Zip-a-dee-doo-dah, zip-a-dee-ay!

**END:** Fantastic Feeling Fingers (1 minute)
I feel happy when I play on swings. I want you all to think of a time you feel happy. When you have thought of a time, I want you to put up your fantastic feeling fingers up like this facing me. Breathe in for 5, Breathe out for 5. You can use your fantastic feeling fingers wherever you are, so you feel happy.

Now it is time to post your badges. When you post your badges, you will all get a sticker for showing me how you all feel when you are feeling happy.

Well done, on showing me how you all feel when you are happy today. Good Afternoon Pre-primarys.
Session 3: Week 2 (50 minutes)

Learning Outcomes

Sad
- “what does sad look like, feel like, sound like, act like?”
- “When I feel sad, when others feel sad?”

Good Afternoon Pre-primarys. Welcome to the Me and My Mates club. As I call out your name collect your Me and My Mates Club Badge from the post. Our topic for today is feeling sad (sad mood dude). First, we are going to watch feeling sad with Barney & Friends.

TV shows: Barney & Friends “Sad section” (5 minutes: 12:30min – 16:45)

Baby Bop was sad as she lost her favourite yellow blanket. Who feels sad when they lose there favourite toy? Baby Bop had her friends to help her find her blanket, and she felt happy when she found it again. We can feel many feelings all in one day. It is important not to stay, angry, scared or sad for long as feeling happy is much better (puppet).

We are now going to do some activities. 2 Groups for role play & flash cards

Go through Flash cards asking questions for each card: Blank levels of questioning (5 minutes)
What is the bear/person doing?
How do you think the bear/person feels when (boy has broken leg & can’t swim)?
How do we know the bear/person is feeling sad? (body clues such as frown, tears, crossed arms).
How do we show we are sad?

Discuss & role play sad behaviours (5 minutes)

Sad Role Plays standing in a circle
Put your hand up if you feel sad when you lose your favourite toy?
Watch me act like I lost my teddy bear, sad, then sing Zipa-dee-doo-dah

You know I am sad, as I am frowning, I speak softly, my head and eyes are looking down, my arms are crossed.

We all get a turn at being actors, let’s do it together
Volunteer: I lost my favourite toy
Facilitator: I will help you look for your favourite toy
Volunteer: Thank you Mrs Coci, that is so nice of you
Facilitator: I found it!
Volunteer: Yay, thank you!
Facilitator & volunteer act together, go around circle, praise children on sad & happy expressions. Say good work on showing me that you are sad, great manners.
If time permits
1) Lost favourite toy and friend helps you find it. (sing / hum zipa-dee-doo-dah)
2) Feeling sick and not being able to play. Friend makes sick friend a card
3) Friend changes schools. Another friend says that you can play with them

Read Story: “When I’m feeling sad.” Trace Moroney (5 minutes)

SING: If You’re Sad And You Know It (5 minutes)

If you’re happy and you know it clap your hands.
If you’re happy and you know it clap your hands.
If you’re happy and you know it and you really want to show it,
If you’re happy and you know it clap your hands.

If you’re sad and you know it show a sad face.
If you’re and you know it show a sad face.
If you’re sad and you know it and you really want to show it,
If you’re sad and you know it show a sad face.

If you’re sad and you know it say I’m sad.
If you’re sad and you know it say I’m sad.
If you’re sad and you know it and you really want to show it,
If you’re sad and you know it say I’m sad.

If you’re happy and you know it say “Hooray!”
If you’re happy and you know it say “Hooray!”
If you’re happy and you know it and you really want to show it,
If you’re happy and you know it say “Hooray!”

After singing: Hand out folders & divide class into 2 Groups: Puppets and Drawings

Drawing activity (5 minutes)
Drawing: Body Mapping “what does sad look like, feel like, sound like, act like?”
Facial Expressions: For example: frown, cry, look down
Feels:
Thoughts:
Behaviour:

Puppets:
Use thermometer to show range of sad (sad to miserable). Rosey feels a little sad when its raining & she can’t play outside, Rosey feels a little more sad when she is feeling sick, Rosey feels very sad when she has no friends to play with. When Rosey feels sad because she has no friends to play with, Rosey can ask another puppet to play with her. Or another puppet can ask Rosey to play with her.
When does your sock puppet feel sad? How much sad? What can the sock puppet do to make itself happy? What can your sock puppet do to make the sad sock puppet happy? (5 minutes)

SING: Zip-a-dee-doo-dah (4 minutes)
Do you remember the song Zip-a-dee-doo-dah. This song is a happy song, so whenever you are not feeling happy or want to feel more happy you can sing this song.

Zip-a-dee-doo-dah, zip-a-dee-ay,
My, oh, my, what a wonderful day.
Plenty of sunshine headin' my way,
Zip-a-dee-doo-dah, zip-a-dee-ay!

We are going to learn the next part of Zip-a-dee-doo-dah:

Mister Bluebird's on my shoulder,
It's the truth, it's "actch'll"
Everything is "satisfactch'll."
Zip-a-dee-doo-dah, zip-a-dee-ay,
Wonderful feeling, wonderful day!

END: Fantastic Feeling Fingers (1 minute)
I feel happy when I play on swings. I want you all to think of a time you feel happy. When you have thought of a time, I want you to put up your fantastic feeling fingers up like this facing me. Breathe in for 5, Breathe out for 5. You can use your fantastic feeling fingers wherever you are, so you feel happy.

Now it is time to post your badges. When you post your badges, you will all get a sticker for showing me how you feel when you are sad and how you can change your mood from sad to happy.
Session 4: Week 2 (50 minutes)

Learning Outcomes

Angry
- “what does angry look like, feel like, sound like, act like?”
- “When I feel angry, when others feel angry?”
- “feeling angry isn’t wrong, but letting my anger hurt someone is”

Good Morning Pre-primarys. Welcome to the Me and My Mates club. As I call out your name collect your Me and My Mates Club Badge from the post. Our topic for today is feeling angry (show angry mood dude). First, we are going to watch feeling angry with Barney & Friends.

TV shows: Barney & Friends “Angry section” (5 minutes: scene 4: 7:40-12:20)

Baby Bop got angry as she felt that BJ did not understand her. BJ got angry as he felt that Baby Bop did not understand her. They told us that when we are angry we can tell a friend, our teacher, our mum or dad. It is ok to feel angry, we all do at times, but letting our anger hurt someone is not ok. Remember, we all can feel happy, sad, angry and scared (use hand puppet) all in one day. It is important not to stay, angry, scared or sad for long as feeling happy is much better.

We are now going to do some activities. 2 Groups for role play & flash cards

Go through Flash cards asking questions for each card: Blank levels of questioning (5 minutes)
- What is the bear/person doing?
- How do you think the bear/person feels when (boy has broken leg & can’t swim)?
- How do we know the bear/person is feeling angry? (body clues such as frown, raised eyebrows, red face).
- How do we show we are angry?

Discuss & role play angry behaviours in TV show: (10 minutes)

Angry Role Plays standing in a circle
1) Friend broke toy on purpose “I’m very angry as my friend broke my favourite toy on purpose – use fantastic feeling fingers.
You know I am angry, as I am frowning, I speak loudly, my head and eyebrows and eyes are scrouched up, my arms are on my hips. Showing you are angry is ok, but letting your anger hurt somebody is not ok. We all get a turn at being actors, let’s do it together

Facilitator: “I’m very angry at you, you broke my favourite toy on purpose.”
Volunteer: “I’m sorry, it was an accident, let’s fix the toy together.”
Facilitator: “It’s ok we all make mistakes.”
Facilitator & Volunteer act together, go around circle, praise children on angry and happy expressions. Say good work on showing me that you are angry, great manners.

Read Story: “When I am feeling Angry” By Trace Moroney (5 minutes)

SING: If You’re Angry And You Know It (5 minutes)
If you’re angry and you know it show an angry face.
If you’re angry and you know it show an angry face.
If you’re angry and you know it and you really want to show it,
If you’re angry and you know it show an angry face.

If you’re angry and you know it blow hot air.
If you’re angry and you know it blow hot air.
If you’re angry and you know it and you really want to show it,
If you’re angry and you know it blow hot air.

If you’re happy and you know it say “Hooray!”
If you’re happy and you know it say “Hooray!”
If you’re happy and you know it and you really want to show it,
If you’re happy and you know it say “Hooray!”

If you’re angry and you know it count to 5.
If you’re angry and you know it count to 5.
If you’re angry and you know it and you really want to show it,
If you’re angry and you know it count to 5.

If you’re happy and you know it clap your hands.
If you’re happy and you know it clap your hands.
If you’re happy and you know it and you really want to show it,
If you’re happy and you know it clap your hands.

After singing: Hand out folders & divide class into 2 Groups: Puppets and Drawings

Drawing activity (5 minutes)
Children need to think of a time they have felt angry & how their body feels when they are sad
Facial Expressions: red cheeks
Feels: For example: Sweaty palms, shortness of breath, hot, tense muscles, loud voices, clench jaw

Puppets:
Use thermometer to show range of angry (angry to furious).
- Rosie feels a little angry when she was going to play a game with her friend, but her friend decided to play with someone else instead.
- Rosie feels a little more angry when her friend broke her favourite toy on purpose.
- Rosie feels very angry when she gets teased because she is green.
Some things Rosie can do to make herself feel better are: fantastic feeling fingers, count to ten, sing zipa-dee-doo-dah.

When does sock puppet feel angry? what can u do to make the sock puppet next to you happy, what can the sock puppet do to make itself happy? (10 minutes)

**SING: Zip-a-dee-doo-dah** (5 minutes)
Do you remember the song Zip-a-dee-doo-dah. This song is a happy song, so whenever you are not feeling happy or want to feel more happy you can sing this song.

Zip-a-dee-doo-dah, zip-a-dee-ay,
My, oh, my, what a wonderful day.
Plenty of sunshine headin' my way,
Zip-a-dee-doo-dah, zip-a-dee-ay!

Mister Bluebird's on my shoulder,
It's the truth, it's "actch'll"
Everything is "satisfactch'll."
Zip-a-dee-doo-dah, zip-a-dee-ay,
Wonderful feeling, wonderful day!

**END: Fantastic Feeling Fingers** (1 minute)
I feel happy when I play on swings. I want you all to think of a time you feel happy. When you have thought of a time, I want you to put up your fantastic feeling fingers up like this facing me. Breathe in for 5, Breathe out for 5. You can use your fantastic feeling fingers wherever you are, so you feel happy.

Now it is time to post your badges. When you post your badges, you will all get a sticker for showing me how you feel, how your puppet feels and your body feels when you are angry and what you can do to feel happy.
Session 5: Week 3 (50 minutes)

Learning Outcomes

Scared
- “what does scared look like, feel like, sound like, act like?”
- “When I feel scared, when others feel scared?”
- Protective behaviour skills

Good Morning Pre-primarys. Welcome to the Me and My Mates club. As I call out your name collect your Me and My Mates Club Badge from the post. Our topic for today is feeling scared (show scared mood dude). First we are going to watch feelingscared with our Sesame Street Friends.

TV show: Play with me Sesame (5 minutes: Chpt 3 then FFWD to 10:55 – 14min)
Sometimes you can scare people for fun, but sometimes you can get really scared. When we are feeling scared what can we do to feel happy? FFF, song, (tell someone – protective hand, 5 people)

We are now going to do some activities. 2 Groups for role play & flash cards

Go through Flash cards asking questions for each card: Blank levels of questioning (5 minutes)
What is the bear/person doing?
How do you think the bear/person feels when (broken window accidentally)?
How do we know the bear/person is feeling angry? (body clues such as frown, raised eyebrows, red face).
How do we show we are scared?

Discuss & role play scared behaviours in show: (5 minutes)

Scared Role Plays standing in a circle
1) Monster under table, fantastic feeling fingers.
You know I am scared, as my mouth is open in a circle, my body is shaking, my eyebrows are raised, my arms are in the air. We all get a turn at being actors, let’s do it together
2) A bad stranger wants to give you a lolly - Scream No and tell a grown up (who can we tell?)
Volunteer: Would you like a lolly little girl?
Facilitator: Nooo (run) and then I am going to think who can I tell)

Read Story: “When I’m feeling scared.” Trace Moroney (5 minutes)
If You’re Scared And You Know It (5 minutes)
If you’re scared and you know it show a scared face.
If you’re scared and you know it show a scared face.
If you’re scared and you know it and you really want to show it,
If you’re scared and you know it show a scared face.

If you’re scared and you know it scream no.
If you’re scared and you know it scream no.
If you’re scared and you know it and you really want to show it,
If you’re scared and you know it scream no.

If you’re scared and you know it go find help.
If you’re scared and you know it go find help.
If you’re scared and you know it and you really want to show it,
If you’re scared and you know it go find help.

If you’re happy and you know it say “Hooray!”
If you’re happy and you know it say “Hooray!”
If you’re happy and you know it and you really want to show it,
If you’re happy and you know it say “Hooray!”

After singing: Hand out folders & divide class into 2 Groups: Puppets and Drawings

Play Game in circle:
Rosey feels a little scared when it is dark
Rosey feels a little more scared when she is lost and by herself
Rosey feels very scared when a puppet she doesn’t know is chasing her.
Use thermometer to show range of scared (scared to terrified).
When does sock puppet feel scared? what can u do to make the sock puppet next to you happy, what can the sock puppet do to make itself happy? (10 minutes)

Drawing Activity (15 minutes)
Drawing / Activity: Body Mapping “what does scared look like, feel like, sound like, act like?”
Facial Expressions: circle mouth, raised eyebrows
Feels: For example: butterflies in stomach, frog in throat, jelly knees, sweaty feet, heart beats fast

Please put your puppets / drawings in your folders & collect
ME AND MY MATES

SING: Zip-a-dee-doo-dah (5 minutes)
Do you remember the song Zip-a-dee-doo-dah. This song is a happy song, so whenever you are not feeling happy or want to feel more happy you can sing this song.

Zip-a-dee-doo-dah, zip-a-dee-ay,
My, oh, my, what a wonderful day.
Plenty of sunshine headin' my way,
Zip-a-dee-doo-dah, zip-a-dee-ay!

Mister Bluebird's on my shoulder,
It's the truth, it's "actch'll"
Everything is "satisfactch'll."
Zip-a-dee-doo-dah, zip-a-dee-ay,
Wonderful feeling, wonderful day!

END: Fantastic Feeling Fingers (2 minutes)
I feel happy when I play on swings. I want you all to think of a time you feel happy. When you have thought of a time, I want you to put up your fantastic feeling fingers up like this facing me. Breathe in for 5, Breathe out for 5. You can use your fantastic feeling fingers wherever you are, so you feel happy.

Now it is time to post your badges. When you post your badges, you will all get a sticker for showing me how you feel when you are scared and what you can do to feel happy when you are feeling scared.
Session 6: Week 3 (50 minutes)

REVISION:
Good Morning Pre-primary. Welcome to the Me and My Mates club. As I call out your name collect your Me and My Mates Club Badge from the post. Our topic for today is feeling happy, sad, angry and scared all in one day.

TV Shows: Barney & Friends, Chpt 3: 3:55min – 5:10 min; FFWD Chpt 4: 7:20min – 9min; FFWD chpt 6 17:10 – 19min) (15 minutes with discussions)

Chpt 3: We can feel, happy, sad, angry and scared all in one day, it is important not to stay sad, angry, scared for too long (use hand puppet). How can we feel happy again? Fantastic Feeling Fingers, sing or hum zipa-dee-doo-dah, use protective hand.

Chpt 4: It is important to show how we are feeling. Our bodies are our friends, which help let us how we feel, when we are happy, sad, angry and scared – We made our own bodies, go through each feeling.

Role play feeling happy, sad, scared, and angry in one day: (5 minutes)
Feel happy, sad, angry and scared all in one day.
Do in sequence:
1) 2 friends are happy to go play on the swings.
2) When you get to the playground one swing is broken, so you feel sad.
3) You both try to sit on the swing at the same time and you both fall off, so you feel angry. Sing Zipa-dee-doo-dah
4) A big, scary, looking dog comes running to where you are playing. Both of you get on top of the slide. Do fantastic feeling fingers.
5) The dog runs away and you both go back to playing happily

PLAY FEELINGS MUSICAL STATUES

Chpt 6: Now we are going to read a book called my many coloured days.
Read story: “My many coloured days” by Dr Seuss (5 minutes)
We can feel, happy, sad, angry and scared all in one day, it is important not to stay sad, angry, scared for too long (hand puppet).

Sing “If you are (happy, sad, angry, scared) & you know it (5 minutes)

4 Flashcards, one of each emotion:
What is the bear/person doing?
How do you think the bear/person feels when (broke window accidentally with ball)?
How do we know the bear/person is feeling scared? (body clues such as open mouth, raised eyebrows, hands in air).
How do we show we are scared?

REVISION (5 minutes) We have another friend, Thermo, which reminds us how much, happy, sad, angry or scared we feel.
Conversations: Rosey

HAPPY: when she watches a show she likes on tv, ‘when she plays with her friends and when she shares her toys with her brother;

SAD: Rosey feels a little sad when it’s raining & she can’t play outside, when she is feeling sick, when she has no friends to play with;

ANGRY: Rosie feels a little angry when she was going to play a game with her friend, but her friend decided to play with someone else instead, when her friend broke her favourite toy on purpose, very angry when she gets teased because she is green;

SCARED: Rosey feels a little scared when it is dark, when she is lost and by herself, when a puppet she doesn’t know is chasing her.

Drawing Activity (5 minutes)
When we do not feel safe, there are grown ups we can talk too. I have drawn a protective hand for us all & on this hand we can stick 5 grown ups on each finger that we can talk too if something makes us sad or angry. Listen carefully, red says parent which means your Mum or Dad, yellow means grandparent, which means grandma or grandpa or nana and pop, blue is for your teacher which means______. Green means friends parent and yellow means aunty or uncle. Bright Green means Doctor or someone else you will put on your safety hand. Volunteer and I will come to each table and help you with what it says on each colour

Play Games:
Facilitator says show me a happy, sad, angry or scared face (5 minutes)
Feelings Musical Statues (5 minutes)
Pass the feeling (15 minutes)
Feelings Bingo

SING: Zip-a-dee-doo-dah (5 minutes)

END: Fantastic Feeling Fingers (2 minutes)
I feel happy when I play on swings. I want you all to think of a time you feel happy. When you have thought of a time, I want you to put up your fantastic feeling fingers up like this facing me. Breathe in for 5, Breathe out for 5. You can use your fantastic feeling fingers wherever you are, so you feel happy.

When you post your badges, you will all get a sticker for showing me how you feel when you are happy, sad, angry and scared & also what you can do to feel happy, when you are sad, angry and scared.
Module 2:
Social Competence
Session 7: Week 4 (50 minutes)

Learning Outcomes

- Friendly behaviours: turn taking, using manners
- How your actions impact on other people’s feelings, caring, sharing

Good Morning Pre-primarys. Welcome to the Me and My Mates club. As I call out your name collect your Me and My Mates Club Badge from the post. Our topic for today is being Friendly.

TV shows: Barney & Friends, “Turn taking.” (2 minutes: Chpt 9: 32min – 34:25; pause to 37:45)

1) It is important to take turns, when we talk, when we play with toys (Q)

2) You can never have too many friends (Q)

Groups for flashcards and roleplays:

Flashcards and Blanks Questioning

Discuss & role play friendly behaviours in TV show (10 minutes)

1) In role play friendly behaviour and friendly greetings.
   1. Eye Contact
   2. Facial expression - smile
   3. body language – shake hand
   4. tone of voice - friendly
   5. Turn taking
   6. Manners

Hello, my name is Volunteer
Hello Volunteer my name is Facilitator
Would you like to play with me Facilitator?
Yes, I would Volunteer, I like having many friends

2) What will you do if you wanted to play blocks with someone and they said you can’t play? You could be friendly and ask to share blocks.

Volunteer, can I play blocks with you?
No, you can’t play with me.
Volunteer, can we please share the blocks?
Yes, ok.

Read Story: “Franklin Makes a new friend”
“Puddles Makes Friends,” Rebecca Johnson (5 minutes)
SING: If You’re Friendly And You Know It (5 minutes)
If you’re friendly and you know it show a smile.
If you’re friendly and you know it show a smile.
If you’re friendly and you know it and you really want to show it,
If you’re friendly and you know it show a smile.

If you’re friendly and you know it listen.
If you’re friendly and you know it listen.
If you’re friendly and you know it and you really want to show it,
If you’re friendly and you know it listen.

If you’re friendly and you know it take turns, say you first / after you.
If you’re friendly and you know it take turns, say you first.
If you’re friendly and you know it and you really want to show it,
If you’re friendly and you know it take turns, say you first.

If you’re friendly and you know it say please and thank you.
If you’re friendly and you know it say please and thank you.
If you’re friendly and you know it and you really want to show it,
If you’re friendly and you know it say please and thank you.

Groups for Drawing and puppets:

Drawing Activity: Colour in & circle favourite way of making a friend

Play Game in circle: How does your puppet make a new friend? (5 minutes)
Rosey makes a new friend by smiling, sharing, turn taking, listening, hugging

SING: Zip-a-dee-doo-dah (4 minutes)

END: Fantastic Feeling Fingers (1 minute)

Now it is time to post your badges. When you post your badges, you will all get a sticker for being friendly pre-primary’s today.

Teacher to reward friendly behaviour that week
Session 8: Week 5 (50 minutes)

Learning Outcomes
- “What does being kind look like, feel like, sound like, act like?
- How your actions impact on other people’s feelings, caring, sharing

Good Morning Pre-primaries. Welcome to the Me and My Mates club. Collect your Me and My Mates Club Badge. Our topic for today is being kind.

TV shows: Winnie The Pooh, number 3 (10 minutes)
Winnie the Pooh upset his friends. Then he was very kind to them and did something nice for his friends, that was important to them.

Groups for flashcards and roleplay:
1) I am feeling sad today as my favourite toy broke.
I am sorry that you are sad today, would you like to play with me, I will share my favourite toy with you. That makes me feel happy, thank you.

Read Story “When I’m feeling kind.” Trace Moroney (5 minutes)

SING: If You’re Kind And You Know It (5 minutes)
If you’re kind and you know it show a smile.
If you’re kind and you know it show a smile.
If you’re kind and you know it and you really want to show it,
If you’re kind and you know it show a smile.

If you’re kind and you know it share a toy.
If you’re kind and you know it share a toy.
If you’re kind and you know it and you really want to show it,
If you’re kind and you know it share a toy.

If you’re kind and you know it hold a friends hand.
If you’re kind and you know it hold a friends hand.
If you’re kind and you know it and you really want to show it,
If you’re kind and you know it hold a friends hand.

If you’re kind and you know it help a friend.
If you’re kind and you know it help a friend.
If you’re kind and you know it and you really want to show it,
If you’re kind and you know it help a friend.

Being Kind & giving of friendship hand (10 minutes)
Being kind – sitting around in a circle – say something that is kind about each person, eye contact (eg, you are a good friend, you are nice, you have a nice smile).

- SING: Zip-a-dee-doo-dah (4 minutes)
- END: Fantastic Feeling Fingers(1 minute)

Now it is time to post your badges. When you post your badges, you will all get a sticker for being such kind pre-primary’s today.
Teacher to reward kind behaviour that week
Session 9: Week 6 (50 minutes)

Learning Outcomes

- “What does empathy look like, feel like, sound like, act like?”
- Another person’s view
- How your actions impact on other people’s feelings, caring, sharing

Good Morning Pre-primaryps. Welcome to the Me and My Mates club. As I call out your name collect your Me and My Mates Club Badge. Our topic for today is being caring.

TV show: Dumbo (8 minutes: scene 6, 16:15 – 24:05)
Dumbo felt very sad that everyone was being mean to him. Did you all feel sad for Dumbo? Dumbo’s Mum felt angry and she got in trouble for hurting people. Dumbo’s new friend felt sad for Dumbo, so was nice to Dumbo, offered him a peanut and became friends with Dumbo. Superman is a hero because he cares about others feelings when they are in danger, or sad and helps them. Just like Superman or the mouse who helped Dumbo we can all be heroes by caring about others feelings and doing something nice to help our friends and families. Use x-ray vision to help see how other people are feeling.

Groups for flashcards and roleplay

Discuss & role play empathy behaviours (5 minutes)
Volunteer, I feel really happy today
Facilitator, I am feeling sick today, I can’t play.
I am sorry that you are feeling sick today, I can lend you my favourite dvd to watch while you rest at home.

Read Story “Jamaica's Blue Marker” D. Havill and A. S. O'Brien. (5 minutes)
Jamaica is angry at her classmate Russell as he scribbles all over her special drawing; but when she learns that he’s moving away, she imagines how sad he must feel and is kind to him.

Superman is a hero because he cares about others feelings when they are in danger, or sad and helps them. Just like Superman or Jamaica in the story we can all be heroes by caring about others feelings and doing something nice to help our friends and families. Use x-ray vision to help see how other people are feeling.

Friend going to another country – how you feel and how friend feels. What can you do to show your friend you care and help them feel better?
ME AND MY MATES

SING: If you’re caring and You Know It (5 minutes)
If you’re caring and you know it say I care.
If you’re caring and you know it say I care.
If you’re caring and you know it and you really want to show it,
If you’re caring and you know it say I care.

If you’re caring and you know it be nice to others.
If you’re caring and you know it be nice to others.
If you’re caring and you know it and you really want to show it,
If you’re caring and you know it be nice to others.

If you’re caring and you know it hold a friends hand.
If you’re caring and you know it hold a friends hand.
If you’re caring and you know it and you really want to show it,
If you’re caring and you know it hold a friends hand.

If you’re caring and you know it help a friend.
If you’re caring and you know it help a friend.
If you’re caring and you know it and you really want to show it,
If you’re caring and you know it help a friend.

Groups for Drawings and Puppets

Drawing Activity: Sick friend, circle favourite way of being caring
2 part drawing & write on paper:
Friend Falls. You are a hero and give your friend a hug / bandaid
Friend Sick. You are a hero and lend them your favourite dvd
Friend leaving school. You are a hero and make them a card

Puppets: What does your sock puppet do to show that they care about others feelings? (10 minutes) Rosey cares when a friend is sick, so to show she cares she makes them a card or shares her favourite toy with them.

Mood Dudes: Happy, Sad, Angry, Scared & Sick. What can you do to show your friend you care and help them feel better?

SING: Zip-a-dee-doo-dah (4 minutes)

END: Fantastic Feeling Fingers (1 minute)

Now it is time to post your badges. When you post your badges, you will all get a sticker for being such caring pre-primary’s today.

Teacher reward empathy for a week
Session 10: Week 7 (50 minutes)

Learning Outcomes

- “What does sympathy look like, feel like, sound like, act like?”
- Attribution of Intent
- We all make mistakes
- How to say sorry

Good Morning Pre-primarys. Welcome to the Me and My Mates club. As I call out your name collect your Me and My Mates Club. Our topic for today is making a mistake and saying sorry.

TV show: “Shrek” 5 minutes (Chpt 16, 108 min to 111 min)

Shrek made a mistake and says sorry to donkey. Donkey forgave him and they were friends again. We all make mistakes sometimes, it is important to say sorry when we make a mistake and hurt someone’s feelings. Now I will read you a story called:

Divide groups for flashcards and roleplay

Discuss & role play saying sorry (10 minutes)
I am feeling sad, what you did hurt my feelings.
I am sorry, what I did was wrong as it hurt your feelings, I made a mistake, can you forgive me and can we be friends again?
That’s ok, we all make mistakes, we can be friends again.

Read Story: “Mabel’s Magical Garden,” Paula Metcalf (5 minutes)
Mabel got angry as she wrongly thought that her friends were stealing her flowers. We need to be very careful about blaming others for things that make us feel angry when we don’t know for sure what happened.

Facts: flowers grew in friends garden
Unfriendly thoughts: friends stole flowers
Friendly thoughts: there has to be another way flowers grew in my friends garden, my friends wouldn’t steal my flowers because they care about me and they are my friends.

Facts: Let’s pretend that you had some chocolate in your bag to share with the class. When you went to your bag, you couldn’t find the chocolate in your bag.
Unfriendly thoughts: someone took my chocolate
Friendly thoughts: It fell out of my bag

Facts: You are playing outside and a ball hits you in the back.
Unfriendly thoughts: someone wanted to hit me with the ball.
Friendly thoughts: someone playing soccer, and ball accidentally hit me

When Mabel realised she was wrong she said sorry, and to show how sorry she was, she made her friends a picnic. We all make mistakes sometimes but when
we do it is important to see if we have hurt someone’s feelings and to say sorry if we did and do something to show we care.

**SING: If You’ve Made a Mistake And You Know It** (5 minutes)
If you’ve made a mistake and you know it say sorry.
If you’ve made a mistake and you know it say sorry.
If you’ve made a mistake and you know it and you really want to show it, say sorry.
If you’ve made a mistake and you know it say sorry.
If you’ve made a mistake and you know it be friendly.
If you’ve made a mistake and you know it be friendly.
If you’ve made a mistake and you know it and you really want to show it, say sorry.
If you’ve made a mistake and you know it be friendly.
If you’ve made a mistake and you know it say it was a mistake.
If you’ve made a mistake and you know it say it was a mistake.
If you’ve made a mistake and you know it and you really want to show it, say it was a mistake.
If you’ve made a mistake and you know it say you care.
If you’ve made a mistake and you know it say you care.
If you’ve made a mistake and you know it and you really want to show it, say you care.

**Divide groups for Drawing and Puppets**

**Drawing Activity:** Assist and support children colouring in favourite way of showing prosocial behaviour when someone accidentally upsets them and apologises.
(Mabel having a picnic with her friends showing she is sorry.) Want to play alone, happy to share blocks, or play together.

**Puppets:** What does your sock puppet do to show it cares when it has made a mistake? Rosey says sorry and to show she cares, she gives a friendship band (5 minutes).

**SING: Zip-a-dee-doo-dah** (4 minutes)

**END: Fantastic Feeling Fingers** (1 minute)

Now it is time to post your badges. When you post your badges, you will all get a sticker for being such caring pre-primary’s today.

Teacher reward saying sorry for a week
Session 11: Week 8 (50 minutes)

REVISION of Module 2: Good Morning Pre-primarists. Welcome to the Me and My Mates club. As I call out your name collect your Me and My Mates Club Badge. Our topic for today is being heroes that are friendly, kind, caring and forgiving and saying sorry when they make a mistake or hurt someone’s feelings (5 minutes).

STORY: “The Little Engine that could” (12 minutes)
The passenger engine, the freight engine, the old engine were strong enough to carry the little engine but had unfriendly thoughts, “I cannot, I cannot, I cannot.” and said that they wouldn’t help. The little train and the toys did not give up hope. The little blue engine was very small and had never carried anything before or it had never been over the mountain but had friendly thoughts about herself, she really thought she could do it and also she was very kind and caring and really wanted to help, so she did. The friendly thoughts the little engine had were, “I think I can, I think I can, I think I can” Then when the little blue engine delivered all the toys and food to the little boys and girls over the mountain, she said, “I thought I could, I thought I could”.

Play Engine Game (15 minutes):
We can be a hero like the Little Blue Engine, by thinking friendly thoughts about ourselves and being caring and kind to others. To help us think friendly thoughts about ourselves and others. Make circle. Put right arm on elbow of child in front and move arms in circular motion (demonstrate). Walk around in circle saying, “I think I can, I think I can.”

Last week we spoke about friendly and unfriendly thoughts

Walk around in circle saying, “I think I can, I think I can.”
Volunteer, can I play blocks with you?
No, you can’t play with me.
What is a friendly thought? - Volunteer, wants to play alone, maybe I can ask her if we please share the blocks?
What is an unfriendly thought? Volunteer, doesn’t like me. Volunteer is being mean.
By thinking friendly thoughts – this is what happens in this situation.
Volunteer, can I play blocks with you?
No, you can’t play with me.
Volunteer, can we please share the blocks?
Yes, we can share.
Walk around in circle saying, “I thought I could, I thought I could.”

Walk around in circle saying, “I think I can, I think I can.”
I am feeling sad today as my favourite toy broke.
What is a friendly thought? – maybe a friend will share their toy with me.
What is an unfriendly thought? I will have no toys to play with
I am feeling sad today as my favourite toy broke.
I am sorry that you are sad today, would you like to play with me, I will share my favourite toy with you.
That makes me feel happy, thank you.
Walk around in circle saying, “I thought I could, I thought I could.”
Walk around in circle saying, “I think I can, I think I can.”

I am feeling sick today, I can’t play.
What is a friendly thought? – When I get better, I will be able to play again
What is an unfriendly thought? I am sick and I will miss out playing with my friends, my friends won’t like me anymore.
Volunteer, I feel really happy today
Facilitator, I am feeling sick today, I can’t play.
I am sorry that you are feeling sick today, I can lend you my favourite dvd to watch while you rest at home.
Walk around in circle saying, “I thought I could, I thought I could.”

Walk around in circle saying, “I think I can, I think I can.”

I am feeling sad, what you did hurt my feelings.
What is a friendly thought? It was an accident
What is an unfriendly thought? My friend hurt my feelings on purpose

I am feeling sad, what you did hurt my feelings.
I am sorry, what I did was wrong as it hurt your feelings, I made a mistake, can you forgive me and can we be friends again?
That’s ok, we all make mistakes, we can be friends again.
Walk around in circle saying, “I thought I could, I thought I could.”

Change between singing “If you are (friendly, kind, caring, made a mistake) and you know it” (5 minutes)

Role play being friendly, kind, caring and making a mistake: (5 minutes)
Feel happy, sad, angry, scared all in one day and Be friendly, kind, caring and sorry.
Do in sequence:
1) 2 friends are happy to go play on the swings.
2) When you get to the playground one swing is broken, so you feel sad.
3) You both try to sit on the swing at the same time and you both fall off, so you feel angry. Sing Zipa-dee-doo-dah.
4) You both say sorry to each other
5) You ask each other if you got hurt. You are both not hurt.
6) You both say that you can take turns on the swing and the slide.
7) Take turns on the swing and the slide
8) A big, scary, looking dog comes running to where you are playing. Both of you get on top of the slide. Do fantastic feeling fingers.
9) The dog runs away and you both go back to playing happily

REVISION (5 minutes) 4 Flash cards. Superman is a hero because he cares about others feelings when they are in danger, or sad and helps them. Just like Superman we can all be heroes by caring about others feelings and doing something nice to help our friends and families.
Discuss Graduation meaning
SING: Zip-a-dee-doo-dah (4 minutes)
END: Fantastic Feeling Fingers (1 minute)

Now it is time to post your badges. When you post your badges, you will all get a sticker for being such friendly, kind, caring, forgiving pre-primary’s today.
Session 12: Week 9 & Booster Session (60 minutes)
Good Morning Pre-primarys. Welcome to the Me and My Mates club. As I call out your name collect your Me and My Mates Club Badge. Our topic for today is feelings and friends, me and my mates! Also, today you will all graduate.


Chpt 3: We can feel, happy, sad, angry and scared all in one day, it is important not to stay sad, angry, scared for too long (use hand puppet). How can we feel happy again? Fantastic Feeling Fingers, sing or hum zipa-dee-dooh-dah, use protective hand.

We have another friend, Thermo, which reminds us how much, happy, sad, angry or scared we feel.

Conversations: Rosey
HAPPY: when she watches a show she likes on tv, ‘when she plays with her friends and when she shares her toys with her brother;
SAD: Rosey feels a little sad when it’s raining & she can’t play outside, when she is feeling sick, when she has no friends to play with;
ANGRY: Rosie feels a little angry when she was going to play a game with her friend, but her friend decided to play with someone else instead, when her friend broke her favourite toy on purpose, very angry when she gets teased because she is green;
SCARED: Rosey feels a little scared when it is dark, when she is lost and by herself, when a puppet she doesn’t know is chasing her.

Chpt 4: It is important to show how we are feeling. Our bodies are our friends, which help let us how we feel, when we are happy, sad, angry and scared – We made our own bodies, go through each feeling. Feeling flashcards.

Chpt 9: Friends take turns, kind, caring, say sorry. Flash cards:
1) what is the bear doing?
2) How do you think bear feels when (hugging sad friend)?
3) How do we know the bear is sad?
4) How do we show we are sad?

Discuss & role play being friendly, kind, caring and making a mistake: (5 minutes)
Feel happy, sad, angry, scared all in one day & friendly, kind, empathy and sorry.

Do in sequence:
1) 2 friends are happy to go play on the swings.
2) When you get to the playground one swing is broken, so you feel sad.
3) You both try to sit on the swing at the same time and you both fall off, so you feel angry. Sing Zipa-dee-doo-dah.
4) You both say sorry to each other
5) You ask each other if you got hurt. You are both not hurt.
6) You both say that you can take turns on the swing and the slide.
7) Take turns on the swing and the slide
8) A big, scary, looking dog comes running to where you are playing. Both of you get on top of the slide. Use fantastic feeling fingers.
9) The dog runs away and you both go back to playing happily

Revise the Little Engine That Could (10 minutes)
The passenger engine, the freight engine, the old engine were strong enough to carry the little engine but had unfriendly thoughts, “I cannot, I cannot, I cannot.” and said that they wouldn’t help. The little train and the toys did not give up hope. The little blue engine was very small and had never carried anything before or it had never been over the mountain but had friendly thoughts about herself, she really thought she could do it and also she was very kind and caring and really wanted to help, so she did. The friendly thoughts the little engine had were, “I think I can, I think I can, I think I can” Then when the little blue engine delivered all the toys and food to the little boys and girls over the mountain, she said, “I thought I could, I thought I could”.

We spoke about friendly and unfriendly thoughts

Engine game – 2 role plays

Hero Game (15 minutes):
We can be a hero like the Little Blue Engine, by thinking friendly thoughts about ourselves and being caring and kind to others. Superman is a hero because he cares about others feelings when they are in danger, or sad and helps them. Just like Superman we can all be heroes by caring about others feelings and doing something nice to help our friends and families. I want you all to think of a time when you did something kind, caring, friendly for someone – it could be sharing toys, hugging someone & we are going to go around one at a time then clap each person and say well done on being a hero!

Feelings Musical Statues (5 minutes)

SING: Zip-a-dee-doo-dah (4 minutes)

END: Fantastic Feeling Fingers (1 minute)

Graduation Ceremony:

Present Certificate (10 minutes)
Session 12: Week 9 & Booster Session (50 minutes)
Good Morning Pre-primar ies. Welcome to the Me and My Mates club. Our topic for today is feelings and friends, me and my mates!


Chpt 3: We can feel, happy, sad, angry and scared all in one day, it is important not to stay sad, angry, scared for too long (use hand puppet). How can we feel happy again? Fantastic Feeling Fingers, sing or hum zipa-dee-dooh-dah, use protective hand.

We have another friend, Thermo, which reminds us how much, happy, sad, angry or scared we feel.

Conversations: Rosey
HAPPY: when she watches a show she likes on tv, ‘when she plays with her friends and when she shares her toys with her brother;
SAD: Rosey feels a little sad when it’s raining & she can’t play outside, when she is feeling sick, when she has no friends to play with;
ANGRY: Rosie feels a little angry when she was going to play a game with her friend, but her friend decided to play with someone else instead, when her friend broke her favourite toy on purpose, very angry when she gets teased because she is green;
SCARED: Rosey feels a little scared when it is dark, when she is lost and by herself, when a puppet she doesn’t know is chasing her.

Chpt 4: It is important to show how we are feeling. Our bodies are our friends, which help let us how we feel, when we are happy, sad, angry and scared – We made our own bodies, go through each feeling. Feeling flashcards.

Chpt 9: Friends take turns, kind, caring, say sorry. Flash cards:
1. what is the bear doing?
2. How do you think bear feels when (hugging sad friend)?
3. How do we know the bear is sad?
4. How do we show we are sad?

SING IF U R HAPPY, SAD, ANGRY and SCARED and KNOW IT: (5 minutes)

Discuss & role play being friendly, kind, caring and making a mistake: (5 minutes)
Feel happy, sad, angry, scared all in one day & friendly, kind, empathy and sorry.
Do in sequence:
1) 2 friends are happy to go play on the swings.
2) When you get to the playground one swing is broken, so you feel sad.
3) You both try to sit on the swing at the same time and you both fall off, so you feel angry. Sing Zipa-dee-doo-dah.
4) You both say sorry to each other
5) You ask each other if you got hurt. You are both not hurt.
6) You both say that you can take turns on the swing and the slide.
7) Take turns on the swing and the slide
8) A big, scary, looking dog comes running o where you are playing. Both of you get on top of the slide. Use fantastic feeling fingers.
9) The dog runs away and you both go back to playing happily

Read and discuss the Little Engine That Could (15 minutes)
The passenger engine, the freight engine, the old engine were strong enough to carry the little engine but had unfriendly thoughts, “I cannot, I cannot, I cannot.” and said that they wouldn’t help. The little train and the toys did not give up hope. The little blue engine was very small and had never carried anything before or it had never been over the mountain but had friendly thoughts about herself, she really thought she could do it and also she was very kind and caring and really wanted to help, so she did. The friendly thoughts the little engine had were, “I think I can, I think I can, I think I can” Then when the little blue engine delivered all the toys and food to the little boys and girls over the mountain, she said, “I thought I could, I thought I could”.

We spoke about friendly and unfriendly thoughts: Engine game – 3 role plays

Hero Game (15 minutes):
We can be a hero like the Little Blue Engine, by thinking friendly thoughts about ourselves and being caring and kind to others. Superman is a hero because he cares about others feelings when they are in danger, or sad and helps them. Just like Superman we can all be heroes by caring about others feelings and doing something nice to help our friends and families. I want you all to think of a time when you did something kind, caring, friendly for someone – it could be sharing toys, hugging someone & we are going to go around one at a time then clap each person and say well done on being a hero!

TIME? Feelings Musical Statues (5 minutes)

SING: Zip-a-dee-doo-dah (4 minutes)

END: Fantastic Feeling Fingers (1 minute)
**Booster Session (50 minutes)**

Good Morning Pre-primarys. Welcome to the Me and My Mates club. Our topic for today is feelings and friends, me and my mates!

**TV Shows:** Barney & Friends, Chpt 3: 3:55min – 5:10 min; FFWD Chpt 4: 7:20min – 9min; FFWD: “Turn taking.” Chpt 9: 32min – 34:25

(15 minutes with discussions)

**Chpt 3:** We can feel, happy, sad, angry and scared all in one day, it is important not to stay sad, angry, scared for too long (use hand puppet). How can we feel happy again? Fantastic Feeling Fingers, sing or hum zipa-dee-doo-dah, use protective hand.

We have another friend, Thermo, which reminds us how much, happy, sad, angry or scared we feel.

**Conversations: Rosey**

**HAPPY:** when she watches a show she likes on tv, ’when she plays with her friends and when she shares her toys with her brother;

**SAD:** Rosey feels a little sad when its raining and she can’t play outside, when she is feeling sick, when she has no friends to play with;

**ANGRY:** Rosie feels a little angry when she was going to play a game with her friend, but her friend decided to play with someone else instead, when her friend broke hr favourite toy on purpose, very angry when she gets teased because she is green;

**SCARED:** Rosey feels a little scared when it is dark, when she is lost and by herself, when a puppet she doesn’t know is chasing her.

**Chpt 4:** It is important to show how we are feeling. Our bodies are our friends, which help let us how we feel, when we are happy, sad, angry and scared – We made our own bodies, go through each feeling. Feeling flashcards.

**Chpt 9:** Friends take turns, kind, caring, say sorry. Flash cards

**Split in 2 groups, teacher assistance, then change groups.**

**Play Engine Game** (10 minutes):

Revision of book

We can be a hero like the Little Blue Engine, by thinking friendly thoughts about ourselves and being caring and kind to others. To help us think friendly thoughts about ourselves and others. Make circle. Put right arm on elbow of child in front and move arms in circular motion (demonstrate). Walk around in circle saying, “I think I can, I think I can.”

**Volunteer, can I play blocks with you?**

No, you can’t play with me.

*What is a friendly thought?*
Volunteer wants to play alone, maybe I can ask her if we can please share the blocks?
Unfriendly thought?
Volunteer, doesn’t like me
By thinking friendly thoughts, this is what happens in this situation:

Volunteer, can I play blocks with you?
No, you can’t play with me.
Volunteer, can we please share the blocks?
Yes, we can share.

Remember we all can be friendly heroes, by thinking friendly thoughts…I think I can, I think I can…

I am feeling sad today as my favourite toy broke.

What is a friendly thought? Maybe a friend will share their toy with me
Unfriendly thought? I will have no toys to play
By thinking friendly thoughts, this is what happens in this situation:

I am feeling sad today as my favourite toy broke.
I am sorry that you are sad today, would you like to play with me, I will share my favourite toy with you.
That makes me feel happy, thank you.

I think I can, I think I can…

I am feeling sick today, I can’t play.

What is a friendly thought? When I get better, I will be able to play again.
By thinking friendly thoughts, this is what happens in this situation:

Volunteer, I feel really happy today
Facilitator, I am feeling sick today, I can’t play.
I am sorry that you are feeling sick today, I can lend you my favourite dvd to watch while you rest at home.
Thank you for caring

I think I can, I think I can…

I am feeling sad, what you did hurt my feelings.

What is a friendly thought? It was an accident.
What is an unfriendly thought? My friend hurt my feelings on purpose.
By thinking friendly thoughts, this is what happens in this situation:

I am feeling sad, what you did hurt my feelings.
I am sorry, what I did was wrong as it hurt your feelings, I made a mistake, can you forgive me and can we be friends again?
That’s ok, we all make mistakes, we can be friends again.
Remember we all can be friendly heroes, by thinking friendly thoughts...I think I can, I think I can...

Stand up and do train, tell children to think of time they were friendly heroes. Give sticker to each child when they tell us when they were friendly heroes.

**In a circle discuss & role play being friendly, kind, caring and making a mistake: (5 minutes)**

Say we can feel happy, sad, angry, scared, friendly, kind, caring and sorry all in one day.

Say in sequence:
1) 2 friends are happy to go play on the swings (children show happy faces)
2) When you get to the playground one swing is broken, so you feel sad. (children show sad faces)
3) You both try to sit on the swing at the same time and you both fall off (oops, children drop to the ground), so you feel angry. (children show angry faces).
When we feel angry, to feel better we can sing a song that makes us feel happy like, Zipa-dee-doo-dah (Sing first verse of Zipa-dee-doo-dah)
4) You both say sorry to each other (I’m sorry)
5) You ask each other, did you get hurt? You are both not hurt.
6) You say let’s take turns on the swing and the slide.
8) A big, scary, looking dog comes running to where you are playing. Both of you get on top of the slide (climb to top of slide so stand up, children show scared faces). When we are scared to feel better we can use our fantastic feeling fingers (use fantastic feeling fingers)
9) The dog runs away and you both go back to playing happily (children feel happy)

**Feelings Musical Statues (5 minutes):** When music stops, freeze with happy, sad, angry or scared face.

**SING:** Zip-a-dee-doo-dah (4 minutes)

**END:** Fantastic Feeling Fingers (1 minute)
Change between singing “If you are (happy, sad, mad, scared) & you know it (10 minutes)

If you’re happy and you know it clap your hands.
If you’re happy and you know it clap your hands.
If you’re happy and you know it and you really want to show it,
If you’re happy and you know it clap your hands.

If you’re sad and you know it show a sad face.
If you’re sad and you know it show a sad face.
If you’re sad and you know it and you really want to show it,
If you’re sad and you know it show a sad face.

If you’re sad and you know it say I’m sad.
If you’re sad and you know it say I’m sad.
If you’re sad and you know it and you really want to show it,
If you’re sad and you know it say I’m sad.

If you’re angry and you know it show an angry face.
If you’re angry and you know it show an angry face.
If you’re angry and you know it and you really want to show it,
If you’re angry and you know it show an angry face.

If you’re angry and you know it blow hot air.
If you’re angry and you know it blow hot air.
If you’re angry and you know it and you really want to show it,
If you’re angry and you know it blow hot air.

If you’re angry and you know it count to five.
If you’re angry and you know it count to five.
If you’re angry and you know it and you really want to show it,
If you’re angry and you know it count to five.

If you’re scared and you know it show a scared face.
If you’re scared and you know it show a scared face.
If you’re scared and you know it and you really want to show it,
If you’re scared and you know it show a scared face.

If you’re scared and you know it say no.
If you’re scared and you know it say no.
If you’re scared and you know it and you really want to show it,
If you’re scared and you know it say no.

If you’re happy and you know it shout “Hooray!”
If you’re happy and you know it shout “Hooray!”
If you’re happy and you know it and you really want to show it,
If you’re happy and you know it shout “Hooray!”
If you are friendly, kind, caring and made a mistake and you know it (10 minutes)

If you're friendly and you know it say please and thank you.
If you're friendly and you know it say please and thank you.
If you’re friendly and you know it and you really want to show it,
If you’re friendly and you know it say please and thank you.

If you're friendly and you know it take turns, say you first.
If you're friendly and you know it take turns, say you first.
If you’re friendly and you know it and you really want to show it,
If you’re friendly and you know it take turns, say you first.

If you're kind and you know it say share a toy.
If you're kind and you know it say share a toy.
If you’re kind and you know it and you really want to show it,
If you’re kind and you know it say share a toy.

If you're kind and you know it say help a friend.
If you're kind and you know it say help a friend.
If you’re kind and you know it and you really want to show it,
If you’re kind and you know it say help a friend.

If you’re caring and you know it say I care.
If you’re caring and you know it say I care.
If you’re caring and you know it and you really want to show it,
If you’re caring and you know it say I care.

If you’re caring and you know it say be nice to others.
If you’re caring and you know it say be nice to others.
If you’re caring and you know it and you really want to show it,
If you’re caring and you know it say be nice to others.

If you’ve made a mistake and you know it say it was a mistake.
If you’ve made a mistake and you know it say it was a mistake.
If you’ve made a mistake and you know it and you really want to show it,
If you’ve made a mistake and you know it say it was a mistake.

If you’ve made a mistake and you know it say sorry.
If you’ve made a mistake and you know it say sorry.
If you’ve made a mistake and you know it and you really want to show it,
If you’ve made a mistake and you know it say sorry.
**Zip-a-dee-doo-dah, zip-a-dee-ay (Disney, 1946)**

Zip-a-dee-doo-dah, zip-a-dee-ay,
My, oh, my, what a wonderful day.
Plenty of sunshine headin' my way,
Zip-a-dee-doo-dah, zip-a-dee-ay!

Mister Bluebird's on my shoulder,
It's the truth, it's "actch'll"
Everything is "satisfactch'll."
Zip-a-dee-doo-dah, zip-a-dee-ay,
Wonderful feeling, wonderful day!

Zip-a-dee-doo-dah, zip-a-dee-ay,
My, oh, my, what a wonderful day.
Plenty of sunshine headin' my way,
Zip-a-dee-doo-dah, zip-a-dee-ay!

Mister Bluebird's on my shoulder,
It's the truth, it's "actch'll"
Everything is "satisfactch'll."
Zip-a-dee-doo-dah, zip-a-dee-ay,
Wonderful feeling, feeling this way!

Mister Bluebird's on my shoulder,
It's the truth, it's "actch'll"
Everything is "satisfactch'll."
Zip-a-dee-doo-dah, zip-a-dee-ay,
Wonderful feeling, wonderful day!
“If you are (happy, sad, angry and scared) & you know it

If you're happy and you know it clap your hands.
If you're happy and you know it clap your hands.
If you're happy and you know it and you really want to show it,
If you're happy and you know it clap your hands.

If you're sad and you know it show a sad face.
If you're sad and you know it show a sad face.
If you're sad and you know it and you really want to show it,
If you're sad and you know it show a sad face.

If you're sad and you know it say I’m sad.
If you're sad and you know it say I’m sad.
If you're sad and you know it and you really want to show it,
If you're sad and you know it say I’m sad.

If you're angry and you know it show an angry face.
If you're angry and you know it show an angry face.
If you're angry and you know it and you really want to show it,
If you're angry and you know it show an angry face.

If you're angry and you know it blow hot air.
If you're angry and you know it blow hot air.
If you're angry and you know it and you really want to show it,
If you're angry and you know it blow hot air.

If you're angry and you know it count to five.
If you're angry and you know it count to five.
If you're angry and you know it and you really want to show it,
If you're angry and you know it count to five.

If you're scared and you know it show a scared face.
If you're scared and you know it show a scared face.
If you're scared and you know it and you really want to show it,
If you're scared and you know it show a scared face.

If you're scared and you know it say no.
If you're scared and you know it say no.
If you're scared and you know it and you really want to show it,
If you're scared and you know it say no.

If you're happy and you know it shout “Hooray!”
If you're happy and you know it shout “Hooray!”
If you're happy and you know it and you really want to show it,
If you're happy and you know it shout “Hooray!”
Change between singing “If you are (friendly, kind, made a mistake) & you know it” (10 minutes)

If you're friendly and you know it take turns, say after you.
If you’re friendly and you know it take turns, say after you.
If you’re friendly and you know it and you really want to show it, say after you.
If you’re friendly and you know it take turns, say after you.

If you're friendly and you know it say please and thank you.
If you’re friendly and you know it say please and thank you.
If you’re friendly and you know it and you really want to show it, say please and thank you.
If you’re friendly and you know it say please and thank you.

If you're kind and you know it share a toy.
If you’re kind and you know it share a toy.
If you’re kind and you know it and you really want to show it, share a toy.
If you're kind and you know it share a toy.

If you're kind and you know it help a friend.
If you’re kind and you know it help a friend.
If you’re kind and you know it and you really want to show it, help a friend.
If you’re kind and you know it help a friend.

If you're caring and you know it say I care.
If you’re caring and you know it say I care.
If you’re caring and you know it and you really want to show it, say I care.
If you’re caring and you know it say I care.

If you're caring and you know it be nice to others.
If you’re caring and you know it be nice to others.
If you’re caring and you know it and you really want to show it, be nice to others.
If you’re caring and you know it be nice to others.

If you’ve made a mistake and you know it say it was a mistake.
If you’ve made a mistake and you know it say it was a mistake.
If you’ve made a mistake and you know it and you really want to show it, say it was a mistake.
If you’ve made a mistake and you know it say it was a mistake.

If you’ve made a mistake and you know it say sorry.
If you’ve made a mistake and you know it say sorry.
If you’ve made a mistake and you know it and you really want to show it, say sorry.
If you’ve made a mistake and you know it say sorry.
Additional Reading:

Sad

“The Red Tree” Shaun Tan

Angry

“When Sofie gets angry, really, really angry.” Molly Bang

Scared

“Pog” Lyn Lee and Kim Gamble

“Supposing” Francis Thomas and Ross Collins

“Max’s creepy crawly slimy things”

Love

“When I’m Feeling Loved” Trace Moroney

“I love you forever” Robert Munsch

Worried

“The Huge Bag of Worries” Virginia Ironside

Sorry

“I’m Sorry” Sam McBratney
Appendix B

Links between ‘Me and My Mates’ and Western Australian pre-primary school curriculum
The, “Me and My Mates,” programme has the following curriculum links to learning and teaching focus in each programme session.

**Health & Phys Ed – Self Management Skills SMS 1**
Uses basic self-management skills in familiar health situations

**Health & Phys Ed – Knowledge and Understanding KU 1**
The student recognises what it means to be healthy and the actions that they can take to optimise personal health and safety. Shows concern for and sensitivity to others, with some direction takes action to care for others.

**Health and Phys Ed – Interpersonal Skills IS 1**
Uses basic communication and cooperation skills when interacting with familiar people.

**English – Listening and Speaking LS 1.1**
Uses expressions for routine social interaction correctly; recounts and discusses personal experiences; and conveys key information or ideas on a familiar topic.

**English – Reading R 1**
Makes connections between own knowledge and experience, and the ideas, events and information in texts read aloud. Recognises and uses cues to predict and construct meaning in texts.

**English – Viewing V 1**
Makes simple interpretations from visual texts. Recognises and uses cues, including background knowledge, to predict and make meaning from visual text.

**English – Writing W 1**
Recognises that writing is used by people to convey meaning to others.

**Society and Environment – Investigation, Communication, Participation ICP 1**
Contributes relevant ideas and suggestions from direct experience or stimulus provided. Sorts information into simple categories and talks about ways of organizing information. Expresses a personal view of the information when communicating findings.

**Society and Environment – Active Citizenship: Social Justice**
Shows concern for and sensitivity to others in their class, with some direction takes action to care for others. Shows respect for others in their class, including those of different opinion.

**Society and Environment – Active Citizenship: Democratic Process**
Participates with willingness in group activities

**The Arts – Art Ideas AI 1**
Creating, exploring and expressing through role-play
The Arts-Arts, Skills and Processes ASP 1
Uses skills, techniques, processes, and conventions in role-play

The Arts-Arts Ideas AI 1
Uses ideas and sensory experiences as the basis for making and sharing activities.

Mathematics – Number N6
Says whole numbers, using them to say how many things there are, makes collections of a given size, and describes order.

Mathematics – Chance and Data C&D 13b1
Displays objects and pictures and describes data in words and numbers.

Mathematics – Chance and Data C & D 12
Shows some recognition of the element of chance in familiar daily activities and uses and responds to the familiar everyday language of chance.
Appendix C

‘Me and My Mates’ Graduation Certificate
Me and My Mates

Congratulations

John

You have learned how to:
- understand your feelings
- manage your feelings
- make new friends
- show kindness
- care about others feelings
- forgive and say sorry when you have made a mistake

Well done and remember to practice your new skills!

Mrs Yajna Coci
Term 2, 2009
Appendix D

Cartoon Faces Questionnaire
**Cartoon Faces**

“Let’s make sure that you know what feelings are on these faces.”

*Lay down the 4 faces on the table in front of the child and leave all of them down as you point to each face, one at a time. Overt the course of testing multiple children, the experimenter should randomize the order these test items are administered.*

**Scoring**

2 item is correct

1 positive or negative emotion word (example: “good” for “happy” would receive 1 point)

0 entirely miss item

### Expressive

<table>
<thead>
<tr>
<th>Child’s Response</th>
<th>Score (0-1-2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How does she/he feel? (angry)</td>
<td>□ 0 □ 1 □ 2</td>
</tr>
<tr>
<td>How does she/he feel? (scared)</td>
<td>□ 0 □ 1 □ 2</td>
</tr>
<tr>
<td>How does she/he feel? (happy)</td>
<td>□ 0 □ 1 □ 2</td>
</tr>
<tr>
<td>How does she/he feel? (sad)</td>
<td>□ 0 □ 1 □ 2</td>
</tr>
</tbody>
</table>

**Total: /8**

Pick up the faces, rearrange them, and place them back on the table in front of the child. Again over the course of testing multiple children, randomize the order.

**Scoring**

2 item is correct

1 positive or negative emotion face (example: “angry” for “sad” would receive 1 point)

0 entirely miss item

### Receptive

<table>
<thead>
<tr>
<th>Child’s Response</th>
<th>Score (0-1-2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Show me the face that feels happy</td>
<td>□ 0 □ 1 □ 2</td>
</tr>
<tr>
<td>Show me the face that feels sad</td>
<td>□ 0 □ 1 □ 2</td>
</tr>
<tr>
<td>Show me the face that feels angry</td>
<td>□ 0 □ 1 □ 2</td>
</tr>
<tr>
<td>Show me the face that feels scared</td>
<td>□ 0 □ 1 □ 2</td>
</tr>
</tbody>
</table>

On the second set of faces, praise the child’s correct responses. If the child misidentifies a face, mark them incorrect and correct the mistake by pointing to matching face. Do not label the face that the child used incorrectly. After testing the child on the remaining faces, return to re-administer any faces that were identified incorrectly the first time through until the child is able to correctly identify all 4 faces. If the child is unable to master the feeling faces after several corrections and practice trials, then discontinue the test.

**Total: /8**
Appendix E

Emotion Recognition Questionnaire
Emotion Recognition Questionnaire

“I’m going to read you some stories about (a girl named Susie/a boy named Johny).

Each story will be about something that happened to Susie/Johny. I want you to tell me how you think Susie/Johny feels about what happened to her/him.” Children can indicate the answer by pointing or by saying the emotion. Display story pictures. Johnny is wearing blue / Suzie is wearing pink. For item 1, Read the story and then lay down the faces in front of the child as you then ask the child: “Did Johnny/ Suzie feel happy, sad, angry or scared.” Leave the faces in place for items 2-16, point to the feelings as you say them for several items until you are confident that the child understands the task. Circle the number corresponding to child’s response for each item. ***NOTE: If the child begins to give the same response for each item read all four feeling responses before accepting the child’s response but then take whatever answer is given.
<table>
<thead>
<tr>
<th></th>
<th>Johnny/ Susie wanted his/her friends to come over to play. So he/she asked them, and they came to play with him/her at his/her house.</th>
<th>Happy</th>
<th>Sad</th>
<th>Angry</th>
<th>Scared</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Johnny’s/ Susie’s little brother broke his/her favorite toy on purpose.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>2.</td>
<td>It is Johnny’s/Susie’s birthday. He/she is given a party with lots of cake and fun games to play, and presents, too.</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3.</td>
<td>Johnny/ Susie and his/her little sister have a pet dog. The dog is sick and is going to die.</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4.</td>
<td>Johnny/ Susie went to the zoo, and his/her aunt bought him/her a real nice balloon that he/she liked a lot.</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5.</td>
<td>Johnny/ Susie made his/her dad a bowl for his birthday. Johnny/ Susie told his/her baby brother not to touch it, but his/her brother did and the bowl broke.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>6.</td>
<td>Johnny/ Susie’s favourite jumper that he/she liked a lot was very old and worn out. He/she had to throw it away and gave it to his/her mom to get rid of it.</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>7.</td>
<td>A bad man was chasing after Johnny/Susie.</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8.</td>
<td>Johnny/ Susie was dreaming about a monster in his/her nightmare.</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9.</td>
<td>Johnny/ Susie and his/her little sister were in their room at night. It was dark, and they saw a tree outside that looked like a person with his hand about to come in the window.</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>10.</td>
<td>When Johnny/ Susie went to bed, he/she thought there was something in his/her closet trying to get him/her.</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>11.</td>
<td>Johnny/Susie was trying to tell his/her mom about something exciting, but his/her little brother kept interrupting.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>12.</td>
<td>Johnny/Susie let his/her best friend use his/her new ball. His/her friend wasn’t careful and lost the ball and wouldn’t give Johnny/ Susie another one.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>13.</td>
<td>Johnny’s/Susie’s friend, who he/she really liked to play with, moved away. Johnny/ Susie couldn’t play with his/her friend anymore.</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>14.</td>
<td></td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
Appendix F

Hostile Attribution of Intent Questionnaire
Hostile Attribution of Intent

Situation 1:

“Pretend that you are playing with a ball. A boy you know throws the ball and it hits you on the back.”

(1) Did the boy hit you in the back by accident?
   0
   or
(2) Did the boy want to hit you in the back?
   1

Situation 2:

“Pretend that you are playing with some other kids outside and you decide to go back inside. You walk by a girl and you trip over her leg.”

(1) Did the girl trip you by accident?
   0
   or
(2) Did the girl want to trip you?
   1

Situation 3:

“Pretend that you are eating a snack quietly with some other children. A boy sitting next to you is drinking orange juice. He spills his orange juice all over you.”

(1) Did the boy want to get you wet and so he spilled the orange juice on purpose?
   1
   or
(2) Did the boy spill the orange juice by accident?
   0

Situation 4:

“Pretend that you are in the playground. You are eating an ice cream when a girl bumps your arm and the ice cream falls on your shirt and your shirt gets dirty.”

(1) Did the girl want to get you dirty and so she bumped your arm on purpose?
   1
   or
(2) Did the girl bump your arm by accident?
   0

Total: /4
Appendix G

Eisenberg and Bryant Empathy Index
Eisenberg and Bryant Empathy Index

“I will read you a story, and I would like you to let me know how you think or feel by pointing to a feeling face or telling me the name of the feeling.”

For example, When you eat ice cream how do you feel?
Happy (pause) ☐ 0
Sad (pause) ☐ 0
Angry (pause) ☐ 0
Scared ☐ 0

1. When you see a girl you don’t know who can’t find anyone to play with, how do you feel?
   Sad (pause) ☐ 2
   Angry (pause) ☐ 1
   Scared (pause) ☐ 0
   Happy ☐ 0

2. When you see people who don’t have the things you do, how do you feel?
   Angry (pause) ☐ 1
   Scared (pause) ☐ 0
   Happy (pause) ☐ 0
   Sad ☐ 2

3. When you see a girl being hurt, how do you feel?
   Scared (pause) ☐ 1
   Happy (pause) ☐ 0
   Sad (pause) ☐ 2
   Angry ☐ 1

4. When you see someone being picked on, how do you feel?
   Happy (pause) ☐ 0
   Sad (pause) ☐ 2
   Angry (pause) ☐ 1
   Scared ☐ 0

5. When you see a boy you don’t know who can’t find anyone to play with, how do you feel?
   Sad (pause) ☐ 2
   Angry (pause) ☐ 1
   Scared (pause) ☐ 0
   Happy ☐ 0

6. When you see other children who are sad or are in trouble, how do you feel?
   Angry (pause) ☐ 1
   Scared (pause) ☐ 0
   Happy (pause) ☐ 0
   Sad ☐ 2
7. When you see a boy being hurt, how do you feel?

- Scared (pause) □ 1
- Happy (pause) □ 0
- Sad (pause) □ 2
- Angry □ 1

Total: /14
Appendix H

Challenging Situations Task
Challenging Situations Task

**Part 1: Baseline**

1. Choose the appropriate set of feeling faces based on the child’s gender and race/ethnicity.
2. Choose the appropriate situation set based on the child’s gender (pink shirt for girls; blue shirt for boys)

Introduce the activity as follows:

_________ (child’s name), what is your favourite toy?

I have some faces that show how children can feel—the different feelings they can have. This child feels happy (put down HAPPY face). This child feels sad (put down SAD face) This child feels angry (put down ANGRY face). This child feels scared (put down SCARED face).

1) Which one would you feel if you got a brand new _______? (fill in with child’s favourite toy).

Point to each face while asking: Would you feel HAPPY, SAD, ANGRY OR SCARED? Great! □ correct □ incorrect

- If child does not say “happy”, say Yeah, you’d feel_____ (emotion they chose). Some children would feel happy. Have you ever felt happy? Great! Ok

2) Which one would you feel like if you lost your _______? (child’s favourite toy).

Point to each face while asking: Would you feel HAPPY, SAD, ANGRY OR SCARED? Ok. □ correct □ incorrect

- If child does not say “sad”, say Yeah, you’d feel_____ (emotion they chose). Some children would feel sad. Have you ever felt sad? Ok

3) Which one would you feel like if someone smashed your new _______ (child’s favourite toy) and broke it?

Point to each face while asking: Would you feel HAPPY, SAD, ANGRY OR SCARED? Ok. □ correct □ incorrect

- If child does not say “angry”, say Yeah, you’d feel_____ (emotion they chose). Some children would feel angry. Have you ever felt angry? Ok

4) Which one would you feel like if a big mean looking dog was barking at you?

Point to each face while asking: Would you feel HAPPY, SAD, ANGRY OR SCARED? Ok. □ correct □ incorrect
• If child does not say “scared”, say **Yeah, you’d feel_____** (emotion they chose). **Some children would feel scared. Have you ever felt scared? Ok**

**Part 2: Challenging Situations**

Now we are going to play a pretending game. I’m going to tell you some stories. I’d like you to pretend that these stories really happened to you.

If the child is a girl, say: I’m going to show you some pictures for the story and I want for you to pretend that you are the child with the pink shirt. Her name is Jane.

If the child is a boy, say: I’m going to show you some pictures for the story and I want for you to pretend that you are the child with the blue shirt. His name is John.

**SITUATION A**

**John/Jane was building a very tall tower of blocks** (point to John/Jane – coloured shirt).

**Bobby knocked it down** (point to Bobby)

If someone knocked your tower down, how would you feel?

Label emotion as you lay out the cards. **Would you feel…**

**Happy** (pause)  □ 0

**Sad** (pause)  □ 1

**Angry** (pause) □ 2

**Scared**  □ 1

What would you do if someone knocked down your tower of blocks?

Wait until I put all the pictures down before you pick one.

Label as you lay down each card. **Would you…**

1. Tell Bobby “Let’s fix it.” □ P
2. Hit Bobby or yell at him. □ Ag
3. Go tell on Bobby. □ AD
4. Find something else to do. □ Av

**SITUATION B**

**John/Jane is having a good time playing in the sandbox** (point to John/Jane – coloured shirt).

**Bobby hits him/her** (point to Bobby)

If someone hit you, how would you feel?

Label emotion as you lay out the cards. **Would you feel…**

**Sad** (pause) □ 1

**Angry** (pause) □ 2

**Scared** (pause) □ 1

**Happy** □ 0

What would you do if someone hit you?

Wait until I put all the pictures down before you pick one.

Label as you lay down each card. **Would you…**

1. Hit him/her back. □ Ag
2. Tell the teacher. □ AD
3. Play somewhere else. □ Av
4. Tell him/her, “That’s not nice.” □ P
SITUATION C
John/Jane (point to John/Jane – coloured shirt) saw Bobby (point to Bobby) building a castle with Legos. He wanted to build too. He asked Bobby, “Can I play too?” Bobby said, “No! I don’t want you to play here. If you wanted to play with another child and he wouldn’t let you, how would you feel?” Label emotion as you lay out the cards. **Would you feel…**

- **Angry** (pause)  □ 1
- **Scared** (pause)  □ 0
- **Happy** (pause)  □ 0
- **Sad**  □ 2

If you wanted to play Legos and someone said, “No,” Would you… (Wait until I put all the pictures down before you pick one.) Label as you lay down each card.

1. Ask if you could use some of the Legos to build something else □ P
2. Grab a bunch of Legos so you could build your own castle. □ Ag
3. Go tell the teacher he wouldn’t share. □ AD
4. Go play with something else. □ Av

SITUATION D
John/Jane (point to John/Jane – coloured shirt) was kicking a soccer ball. Bobby (point to Bobby) came and took the soccer ball. How would you feel if someone took your ball when you were kicking it?

Label emotion as you lay out the cards. **Would you feel…**

- **Scared** (pause) □ 1
- **Happy** (pause) □ 0
- **Sad** (pause) □ 0
- **Angry** □ 2

If someone took your ball what would you do? Would you… (Wait until I put all the pictures down before you pick one.) Label as you lay down each card.

1. Go play something else. □ Av
2. Say “Lets play soccer together.” □ P
3. Grab the ball back □ Ag
4. Go tell the teacher □ AD

**Total Baseline:** /4
**Total Emotions:** /8
**Total Category:** /4 Prosocial /4 Adult Dependent /4 Avoidant /4 Aggressive
Appendix I

Children’s Transcribed Maintenance of Emotional Regulation Techniques
Do you still use Fantastic Feeling Fingers?” If children respond with a yes, they were next asked, “When do you use Fantastic Feeling Fingers?”

A1: When I’m angry

A2: When I’m scared at home

A3: When my tummy feels funny

A4: At home

A5: When I’m angry at home

A6: A lot, everyday to feel happy

A7: When my brother licks my hair and when I’m sad

A8: When I am scared to feel happy.

A9: At my house, when I am sad like when I banged myself.

A10: When I’m sad

A11: When I’m sad, I taught my sister

A12: At home to feel happy

A13: When I don’t get to go on a swing

A14: When I’m upset coz my brother won’t let me play with him

A15: When someone is chasing me, like a bully

A16: When I am sad

A17: When I’m sad

A18: I used it on the weekend

A19: At home

A20: When I am feeling sad

A21: At home

A22: When I’m sad

A23: At home

A24: At home
A25: When I feel sad
A26: At school and on weekends when feeling sad, angry or scared
A27: When I want to feel happy
A28: At bedtime
A29: Yesterday to feel happy
A30: When I’m scared or lost
A31: When feeling sad
A32: When my mum does it with me
A33: When I’m angry
A34: When I’m scared
A35: At home to feel happy
A36: When someone broke my favourite toy
A37: On Wednesday at home when I lost my toys
A38: When I’m sad
A39: When I feel sad
A40: When I’m with mum, dad and babysitter
A41: When my dad yells at me
A42: At home
A43: When I’m sad
A44: When I’m scared
A45: At home
A46: When I am bored
A47: When I’m sad
A48: When I’m on my bed and my brother takes my things
A49: At home to feel happy
A50: When I’m sad
A51: When someone hits me
A52: When I’m on the trampoline and my brother picks on me
A53: Sometimes during the week and weekend, I feel really happy
A54: At home to feel happy
A55: Showed her cousins in kindy how to do it, so they can feel happy
A56: When I’m scared
A57: When I get sad
A58: To feel happy
A59: At home
A60: At home to feel happy
A61: When I’m getting teased
A62: When I’m hurt
A63: When I’m sad
A64: When I’m sad
A65: When I’m lonely and sad
A66: When people are doing things to upset me
A67: When I’m angry
A68: When I fight
A69: Outside the home
A70: When I’m sad, angry or scared
A71: When I went to the zoo
A72: Said still uses, did not say where
A73: When I’m scared
A74: When people are mean to me and when I’m scared
A75: Before bed
A76: When I’m sad, angry, scared
A77: At home
A78: When I’m sad
A79: When I have a party, to show friends
A80: After Zipa-dee-doo-dah, when I’m sad
A81: When I’m feeling lonely
A82: At home
A83: When I’m in bed
A84: When I’m angry
A85: In the car
A86: Everyday
A87: When my grandfather died
A88: Before dinner, when I’m sad
A89: To feel happy
A90: When I’m sad
A91: When I’m angry
A92: When I’m sad, angry or scared

Children were also asked, “Do you still sing Zipa-dee-doo-dah?” If children respond with a yes, they were next asked, “When do you sing Zipa-dee-doo-dah?”

B1: At home
B2: At home
B3: At home
B4: At home and at school
B5: At home
B6: Sometimes
B7: When I am sad and happy
B8: I sing another song when I am sad
B9: At my house
B10: When I am having a rest
B11: At the shop
B12: At home
B13: When I’m scared
B14: When I’m sad
B15: At home
B16: At my house
B17: When I am sad
B18: At home
B19: During the day
B20: At home
B21: When I’m at home
B22: At home
B23: At home
B24: At home
B25: At home
B26: At home
B27: When I feel sad
B28: On weekends
B29: When I’m sad
B30: At home
B31: At home, all the time
B32: When feeling sad
B33: At home to feel happy
B34: When I’m sad
B35: When I’m sad
B36: At home to feel happy
B37: With my brother
B38: At home when I cry and when I get hurt by my brothers
B39: When I feel sad
B40: When I’m with mum, dad and babysitter
B41: When I go to bed, with mum
B42: At home
B43: At home
B44: When I get sad
B45: I always sing it
B46: When I am bored
B47: At home
B48: At home
B49: Outside
B50: When I’m happy
B51: With my toys
B52: Everyday I feel happy when I see it
B53: At home to feel happy
B54: All day, all the time
B55: When I’m angry
B56: When I’m sad
B57: In the car
B58: At home
B59: When I’m angry with my brother
B60: When I’m angry or sad
B61: At home
B62: At home
B63: At home
B64: When someone pushes me over, when I get angry
B65: To feel friendly and happy
B66: At home
B67: At home
B68: When I’m scared
B69: In the house
B70: When I’m scared
B71: When I’m angry or scared
B72: At shop
B73: When I’m sad, angry, scared
B74: At home
B75: To feel happy
B76: When my sister is annoying me
B77: When I’m sad
B78: When I feel sad
B79: At home
B80: At home
B81: At home
B82: At home
B83: Everyday
B84: When I’m sad, like when I tripped over everything
B85: When I’m sad
B86: When I’m sad
B87: All the time
B88: When I’m sad
B89: When I’m angry or sick
B90: When I’m sad
Appendix J

Emotional and Social Skills Questionnaire
Children's Name: _______________________

**Instructions:** Please circle the number that shows how well your child expresses each of the following emotions (for example, being able to say that they feel this emotion or being able to express this emotion without hurting another person).

<table>
<thead>
<tr>
<th>Emotion</th>
<th>Unable to Judge</th>
<th>Almost Never/Never</th>
<th>Not Often</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost Always/Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Happiness</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sadness</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anger</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fear</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Instructions:** Please read each statement and circle the number that shows how well your child is doing in each area.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Unable to Judge</th>
<th>Almost Never/Never</th>
<th>Not Often</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost Always/Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Labels emotions: happy, sad, scared and angry in self (for example, says, “I’m sad”)</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Identifies emotions in others (for example, can tell when others are feeling: happy, sad, scared &amp; angry)</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Tries to understand how people feel when they are angry, sad or scared</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Able to understand situations where others might feel happy, sad, scared &amp; angry (for example, at a birthday, birthday child is usually happy)</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Can identify happy, sad, scared and angry people</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Expresses feelings of happiness, sadness, fear and anger appropriately (for example, not hurting someone when angry)</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Understands variation from mild to strong of a particular emotion (for example, from happy to excited)</td>
<td>0 1 2 3 4 5</td>
<td></td>
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<tr>
<td>8. Able to identify bodily sensations associated with feeling happy, sad, scared &amp; angry (for example, when scared, sweaty palms, butterflies in stomach)</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>9. Can identify happy, sad, scary and angry situations (for example, being alone in the dark is scary).</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>10. Able to identify emotions associated with music, tone of voice or other sounds.</td>
<td>0 1 2 3 4 5</td>
<td></td>
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<tr>
<td>11. Does not stay sad, scared or angry for long</td>
<td>0 1 2 3 4 5</td>
<td></td>
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</tr>
<tr>
<td>12. When sad, scared or angry seeks comfort (for example asks for a hug)</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Tells others when sad, angry or scared</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Asks for help when sad, angry or scared</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Appropriately manages anger or hurt feelings when denied own way</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Does not slap or hit when angry</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Listens when someone else is speaking and talks in turn</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Instructions:** Please read each statement and circle the number that shows how well your child is doing in each area:

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<thead>
<tr>
<th></th>
<th></th>
<th>Unable to Judge</th>
<th>Almost Never / Never</th>
<th>Not Often</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost Always / Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>Says “please” when asking for something</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Says “thank you” when it is appropriate to do so</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Looks at people when they are speaking</td>
<td>0 1 2 3 4 5</td>
<td></td>
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<td></td>
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<td>21</td>
<td>Smiles, waves or nods at people that he/her knows</td>
<td>0 1 2 3 4 5</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>22</td>
<td>Can make other people laugh (for example, tell jokes or funny stories)</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Helps a friend who is sad, scared, hurt or angry</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Comforts or cheers up others who are sad, scared or angry</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Does nice things for others who are nice to him/her</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Shares toys or possessions with others</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Considerate of other peoples’ feelings</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>28</td>
<td>Feels sorry when he/her hurts others</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Feels sorry for others when something bad happens to them</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Feels sorry for other children who are being teased</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Feels sympathy for other children who are sad or angry</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Thinks people are picking on him/her when they are not</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Understands that accidents sometimes happen (for example, a ball accidentally hitting child when playing a ball game)</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Understands that people sometimes make mistakes (for example, another child takes your school bag as it looks like theirs.)</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Apologizes for unintentional mistakes (for example, burping or bumping into someone)</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Apologizes for mistakes or errors in judgment (for example, says, “I made a mistake for saying you did that, sorry.”)</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Is friendly to new people that he/she meets</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>Makes friends easily</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Has many friends of his/her own age</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>Acts like a bully</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>Joins in games with other children</td>
<td>0 1 2 3 4 5</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Appendix K

Strengths and Difficulties Questionnaire
# Strengths and Difficulties Questionnaire

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. Please give your answers on the basis of your child’s behaviour over the last six months.

<table>
<thead>
<tr>
<th>Item</th>
<th>Not True</th>
<th>Somewhat True</th>
<th>Certainly True</th>
</tr>
</thead>
<tbody>
<tr>
<td>Considers other people's feelings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restless, overactive, cannot stay still for long</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often complains of headaches, stomach-aches or sickness</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Shares readily with other children, for example toys, treats, pencils</td>
<td></td>
<td></td>
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<tr>
<td>Often loses temper</td>
<td></td>
<td></td>
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<tr>
<td>Rather solitary, prefers to play alone</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generally well behaved, usually does what adults request</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Many worries or often seems worried</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helpful if someone is hurt, upset or feeling ill</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constantly fidgeting or squirming</td>
<td></td>
<td></td>
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<tr>
<td>Has at least one good friend</td>
<td></td>
<td></td>
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<tr>
<td>Often fights with other children or bullies them</td>
<td></td>
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<tr>
<td>Often unhappy, depressed or tearful</td>
<td></td>
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<tr>
<td>Generally liked by other children</td>
<td></td>
<td></td>
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<tr>
<td>Easily distracted, concentration wanders</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Nervous or clingy in new situations, easily loses confidence</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Kind to younger children</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Often lies or cheats</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Picked on or bullied by other children</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often volunteers to help others (parents, teachers, other children)</td>
<td></td>
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<td></td>
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<tr>
<td>Thinks things out before acting</td>
<td></td>
<td></td>
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<tr>
<td>Steals from home, school or elsewhere</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gets along better with adults than with other children</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Many fears, easily scared</td>
<td></td>
<td></td>
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<tr>
<td>Good attention span, sees chores or homework through to the end</td>
<td></td>
<td></td>
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</tbody>
</table>

Do you have any other comments or concerns?

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Please turn over - there are a few more questions on the other side
Appendix L

School Information Sheet
Dear Principal

My name is Yajna Coci and I have had the pleasure to work collaboratively with children, families and schools for 7 years in various roles. For the latter 3 years I worked in a government setting which fuelled my interest and passion to return to Murdoch University to undertake my Masters and PhD in Clinical Psychology. Research shows that primary school children who have better emotional and behaviour skills do respond better when faced with adversity and are less prone to mental illness. But very little is known about pre-primary school children. Therefore, for my PhD, under the supervision of Dr Suzanne Dziurawiec and Kristy Johnstone, I have designed an emotion and social skills programme called, “Me and My Mates,” for Pre-Primary children that can be easily incorporated into the daily school curriculum. We would like to involve your school in the programme. There are two options for schools to be involved; programme delivery in either 2008 or 2009 with assessment tasks undertaken in 2008 with parental and child consent for all schools to compare the effectiveness of the programme.

In 2008, we will begin the “Me and My Mates” Programme at the end of Term 2, with the programme concluding at the end of Term 4. I, Yajna Coci will be facilitating this programme, commencing in Term 2 with tasks that will consist of several activities to determine children’s level of emotion and behaviour regulation, such as looking at pictures to identify emotions, their feelings and actions in various situations. Parents will be given short questionnaires to complete both prior to and at the completion of the programme. The pre-primary teacher will be asked to complete questionnaires regarding children’s behavioural and social skills. All information obtained will remain confidential and information will not be shared without parental consent.

For schools which participate in programme delivery in 2008, in Term 3, I will come in weekly to deliver 13, 90 minute sessions. During these sessions teachers will be asked to stay in the classroom, however, they are able to do other work during this time.

Children generally find these activities interesting and enjoyable and children will be provided with breaks and diversions to make sure they stay engaged. Each child gets one-on-one attention to ensure they do as well as possible in the tasks and find the experience pleasant.

This is an opportunity for your school to be involved in important research that promotes emotional and social well-being in pre-primary school children. A general summary of the outcome of the programme will be available to all families and to all the schools involved.

Your support in this project, that has the potential to help children create better futures, will be greatly appreciated. I will contact you via telephone to discuss further and offer an optional presentation detailing the programme. In the mean time, you are welcome to contact me on the above contact details.

Yours Sincerely

Yajna Coci
Appendix M

School Consent Form
I have read the information provided to me about the Me and My Mates project and fully understand the nature of my school’s participation.

I understand that this Project is conducted by Murdoch University, School of Psychology, in association with Pre-Primary School.

☐ I AGREE to allow my pre-primary school to take part in this project (please tick box and provide the details requested below)

Schools Name……………………………………………………………………

Principals Name…………………………………………………………………

Principals signature:………………………………………………………………

Date:………………

School Address……………………………………………………………………

Work Phone…………………………

THANK YOU FOR YOUR PARTICIPATION IN THIS IMPORTANT RESEARCH.
Appendix N

Parent Information Sheet
Project Title:
Me and My Mates

Yajna Coci, will be implementing the, “Me and My Mates Programme.” Yajna has worked with children, families and schools for 7 years in various roles and is currently undertaking her Masters and PhD in Clinical Psychology at Murdoch University under the supervision of Dr Suzanne Dziurawiec and Dr Kristy Johnstone.

What this Research is about?
With the support of your principal and the pre-primary teacher, we are trying to learn which social and emotional skills are necessary for children’s well-being. Research shows that children who have better emotional and behaviour skills do respond better when faced with adversity and are less prone to mental illness. Therefore, we have designed an emotion and social skills programme called, “Me and My Mates,” for Pre-Primary children that can be easily incorporated into the daily school curriculum. We would like to involve your child in the programme.

What exactly are we doing?
We will begin the “Me and My Mates” Programme at the end of Term 2, with the programme concluding at the end of Term 4, in 2008 for some schools and 2009 for others. All pre-primary children at your school will be given the opportunity to participate. With your consent, your child will be given a series of enjoyable tasks to complete during class time. Your children will represent the “typical” child in a regular pre-primary setting. The tasks will consist of several activities to determine your child’s level of emotion and behaviour regulation, such as looking at pictures to identify emotions, their feelings and actions in various situations. Parents will be given short questionnaires to complete both prior to and at the completion of the programme. Your child’s pre-primary teacher will be asked to complete questionnaires regarding children’s behavioural and social skills. All information obtained will remain confidential and information will not be shared without your consent. Information is stored in a secure environment for a minimum of five years and at the end of this period, is disposed of in a manner that maintains the privacy and confidentiality of all participants.

Are there any risks?
No. Children generally find these activities interesting and enjoyable and children will be provided with breaks and diversions to make sure they stay engaged. Each child gets one-on-one attention to ensure they do as well as possible in the tasks and find the experience pleasant. We would appreciate it if you could please talk with your child about whether they would like to participate. Please complete and return the attached form to your child’s teacher.
What if I change my mind?
We value your participation, but it is very important that you and your child participate voluntarily. You can withdraw your child at any time, for any reason, with no questions asked. In cases in which consent is withdrawn, any record of the participant is destroyed unless otherwise agreed by the participant.

Are there any benefits?
Yes. You and your child will be involved in important research that promotes emotional and social well-being that will benefit future years of children at your school and others. A general summary of the outcome of the programme will be available to all families and to all the schools involved, in the school newsletter.

More information?
Schools will be randomly assigned to receive the programme in either 2008 or 2009. Schools that do not get the programme in 2008 will get the programme in 2009. The reason for this is to test the effectiveness of the programme in promoting social and emotional skills beyond those that would ordinarily be expected in pre-primary children. This research was granted ethical approval (Permit No: 2008/012) by the Research Ethics Office at Murdoch University (ph: 9360 6677). For more information on any aspects of the programme, please phone Yajna Coci, on 9360 2290 or email Yajna.Coci@murdoch.edu.au
Appendix O

Parent Consent Form
ME AND MY MATES
REGISTRATION AND CONSENT FORM

- I have read the information provided to me about the Me and My Mates project and fully understand the nature of my child’s participation.
- I understand that this Project is conducted by Murdoch University, School of Psychology, in association with Pre-Primary School.
- I understand that all information obtained will remain confidential and will not be shared without my consent.
- I have discussed with my child what it means to participate in this project, and he/she has explicitly indicated a willingness to take part, as indicated by his/her completion of the child consent form.
- I understand my child’s involvement in this project is voluntary and that we can withdraw at any time without consequence to my child or the researcher.
- I consent to be contacted by phone should the researchers require any further information regarding my child’s participation.

☐ I AGREE to allow my son/daughter to take part in this project (please tick box and provide the details requested below)

Parent/Guardian’s Name...........................................................................................................

Parent signature:...................................................................................................................

Date:...................

Child’s Name......................................................... My child is a (please circle)

Date of Birth……/……/………..   Boy / Girl

Address....................................................................................................................................

Home Phone..............................................    Work Phone..............................................

THANK YOU FOR YOUR PARTICIPATION IN THIS IMPORTANT RESEARCH.
Appendix P

Child Information Sheet
Hello

My name is Yajna and I have a project called, ‘Me and My Mates,’ about friends and feelings that you might like to help me with.

Would you like to help me do some fun tasks? If you want to stop at anytime, that’s OK, you can stop.

I won’t tell anyone what you say while helping me with the project, except I might need to tell someone like your teacher if you tell me that you have hurt someone or someone has hurt you.

Your mum or dad, or the person who looks after you, has talked with you about whether you would like to help with the ‘Me and My Mates’ project or not, and now you get to say for yourself.

If you do want to help with the ‘Me and My Mates’ project, please draw a circle around the word YES, on the next page.

Remember, if you don’t want to help with the ‘Me and My Mates’ project – that’s OK too.
Appendix Q

Child Consent Form
ME AND MY MATES

Consent Form for Children

- I know that I don’t have to help with the ‘Me and My Mates’ project, but I would like to.
- I know that I can stop whenever I want.
- I understand that I need to draw a circle around the word YES, on this page before I can help with the ‘Me and My Mates’ project.

YES
I would like to help with the project

NO
Not this time

Name of Child______________________  Today’s Date:___________
Appendix R

Parents’ and Teachers’ Transcribed Feedback
Parent’s feedback

Post-intervention

C1: She is more relaxed and able to understand what I am feeling

C2: It appears that she has been able to walk away if someone is being mean to her and find other friends to play with.

C3: She is able to tell me when she is getting bullied

C4: He appears more confident

C5: He is certainly a bit more aware of friends

C6: I found it helped in improving feelings, social skills and behaviour

C7: Understanding his feelings and the impact his actions have on others.

Expressing his feelings more easily.

C8: Learnt to distinguish between emotions

C9: She learnt more about emotions and how to be happy all the time

C10: I want to thank you for the me and my mates work that you did with my daughter’s pre primary class. I am pleased to say that she talks regularly about her feelings and how she has feelings, sometimes she will ask me what I am feeling or will offer to share how she is feeling. She can now recognise and explain physical changes felt depending on how she is feeling emotionally.

C11: She seems to get on well with the little ones better

C12: Since doing your programme he also has gained maturity with it. He has a much better understanding of other people’s feelings. I think you are doing a marvelous job. Thank you

C13: He has improved in his behaviour a lot at home since “Me and My Mates.” Even his grandparents noticed 😊
C14: Gives children ways and words to express emotions
C15: She is not as clingy as before and has more confidence in new situations
C16: She is more aware and concerned of others feelings. Tries to take control over the situation by being kind and there for others.
C17: Helped in developing interpersonal skills.
C18: The Me and My Mates programme has been helpful. Child’s feelings, social skills and behaviour have gotten a bit better.

**Three-month follow-up**

D1: She has changed a little bit with her attitude
D2: She talks about things more
D3: Better behaviour at night time
D4: Helped my daughter distinguish between different emotions
D5: Not scared about things she was before 😊
D6: She lets us know when she is being bullied
D7: Yes, with her mates she understands what she can get and what she cannot have.
D8: Has made her more aware of feelings
D9: He comes to me with his problems and shares how he is feeling.
D10: Seems happier and calm in general
D11: Has learnt to understand right from wrong
D12: Developed Social Skills, willingness to share toys/food/treats
D13: Social Development: learnt to care and share
Teachers have noticed that children have been trying things taught in the role plays.

“Students understand emotions better, and this has been especially good for students with behavioural problems.”

Teachers have noted that many parents have positively commented on the changes in their children. Such as telling parents how they are feeling, talking about feelings and more prosocial behaviour.
Appendix S

Programme Integrity
‘Me and My Mates’ Session
If you rate an area less than 4 please provide constructive feedback on the line below:

<table>
<thead>
<tr>
<th></th>
<th>Poor</th>
<th>Below average</th>
<th>OK</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>DVD’s</td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Storybooks</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Role Plays</td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
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<td>5</td>
</tr>
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<td>Singing</td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Flashcards</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Drawings</td>
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Did you follow my notes on flashcard activity: 1 No 2 sort of 3 Yes
If circled 1 or 2 what did you do differently?___________________________

Did you follow my notes on drawing activity: 1 No 2 sort of 3 Yes
If circled 1 or 2 what did you do differently?___________________________
Main strength about the ‘Me and My Mates’ programme

Other suggestions / Ideas / Future Directions / Comments

Thank you so much for your time and support in my PhD project, ‘Me and My Mates.’