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Externalising Behaviour Problems and the Influence of Classroom Environments in the Early School Years

Student-Teacher Relationships and Teacher Discipline: Their Relation to the Externalising Behaviours of Kindergarten to Year 1 Students

## Emma Spencer

A Report Submitted in Partial Fulfilment of the Requirements for the Award of Bachelor of Science (Psychology) Honours, Faculty of Computing. Health and Science,

Edith Cowan University

Submitted (August, 2007)

I declare that this written assignment is my own work and does not include:

- (i) material from published sources used without proper acknowledgement; or
  - (ii) material copied from the work of other students.

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Student-Teacher Relationships ii

Declaration

I certify that this literature review and research project does not incorporate, without acknowledgement, any material previously submitted for a degree or diploma in any institution of higher education and that, to the best of my knowledge and belief, it does not contain any material previously published or written by another person except where

due reference is made in the text.

Signed:\_

Dated: 24th Jan 2008.

## Acknowledgements

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Student-Teacher Relationships 1
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Externalising Behaviour Problems and the Influence of Classroom Environments in the
Early School Years
Emma Spencer

Externalising Behaviour Problems and the Influence of Classroom Environments in the Early School Years

## Abstract

Some of the most influential people in a child's life are the teachers who aid them in their transition into the education system and the complex social environment that it brings (Blancher & Eisenhower, 2006). Children who display externalising behaviours early in childhood often experience greater difficulties than other children when entering school and throughout their education experience (Hinshaw, Lahey & Hart, 1993; Liu, 2004). The student-teacher relationship established within the classroom and the disciplinary measures utilized by the teachers can have a profound impact on the child's development both academically and socially (Galen & Underwood, 1997; Hamre & Pianta, 2001). Interventions focusing on these areas within the classroom can be essential resources in assisting to redirect the externalising behaviour problems displayed by children before more severe disorders develop later in adolescence and adulthood (Gottfredson & Hirschi, 1990; Moffitt, 1993).

Emma Spencer

Dr Kevin Runions

Submitted August 2007

Externalising Behaviour Problems and the Influence of Classroom Environments in the Early School Years

Externalising behaviours can become very detrimental to a child's social and academic development (Hinshaw, Lahey, & Hart, 1993; Liu, 2004). A child with a difficult temperament and learning and developmental difficulties along with damaging environmental influences is at high risk for developing externalising behaviour problems (Gottfredson & Hirschi, 1990; Moffitt, 1993). The reciprocal relationship between these factors can gradually progress the child's problem behaviours into more serious disorders later on in life including conduct disorders and antisocial disorders. These can persist throughout the child's life (Gottfredson & Hirschi, 1990; Moffitt, 1993). Within a nurturing environment the problem behaviours that a child displays can often be corrected and any developmental difficulties they experience can be overcome (Haberstick, Schmitz, Young, & Hewitt, 2005; Snyder, Cramer, Afrank, & Patterson, 2005).

Unfortunately children who typically develop externalising behaviour problems tend to be exposed to difficult family environments with ineffective parental care and discipline (Gottfredson & Hirschi, 1990; Moffitt, 1993). When these problems occur within a child's family environment the experiences within a child's classroom can become invaluable resources in the redirection of the externalising behaviours that the child has developed (Birch & Ladd, 1998; Blacher & Eisenhower, 2006). Teachers become the authority figures within the classroom and may become role models for the children within the unique situations in schools as compared to within the home setting. Not only do teachers provide guidance in academic achievement they also supply

children with social and emotional support (Galen & Underwood, 1997; Hamre & Pianta, 2001). Students form emotional bonds with their teachers. When these relationships are warm and supportive a positive learning environment is created (Crosnoe, Kirkpatrick Johnson, & Elder, Jr., 2004; Donlevy, 2001). Disciplinary methods teachers engage in also influence the students' learning environments (Derogene, 2007; Tremlow & Fonagy, 2005). The student-teacher relationship and the disciplinary methods used within the classroom can be essential in interventions to overcome the externalising behaviour problems that some children have developed (Tremblay, Vitaro, Gagnon, Piche, & Royer, 1992).

Externalising Behaviours: Origins and Educational Challenges

Externalising behaviour problems in early childhood have been given considerable attention as precursors for later behaviour problems in adolescence and adulthood (Haberstick et al., 2005). These types of behaviour problems can cause many developmental disruptions and create great difficulties for a child throughout their schooling experience and consequently throughout the rest of their lives (Snyder et al., 2005). The developmental difficulties experienced from externalising behaviours affect children's academic and social achievements once they enter the educational system (Miller-Lewis, Baghurst, Sawyer, Prior, Clark, Arney, & Carbone, 2006).

The construct of externalising behaviour problems represents a group of behaviours that are identified as reflecting the child's negative reactions towards their external environment and are manifested as outward behaviours (Buhs, Ladd, & Herald, 2005; Hinshaw et al., 1993; Liu, 2004). These behaviours include conduct problems,

oppositional behaviours, aggression and attention deficit and hyperactivity (Hinshaw et al., 1993; Liu, 2004). Externalising behaviours are commonly identified as negative, hostile and defiant behaviour, defined as oppositional behaviours and physical and verbal behaviours that harm or threaten to harm others, various forms of aggression including those that exclude others from social groups (Bjorkquist, Lagerspetz, & Kaukianen, 1992; Crick, Casas, & Mosher, 1997). Externalising behaviours are identified more prominently in boys rather than in girls as boys tend to display more physically aggressive behaviour than their female counterparts where as girls tend to be more inclined towards such forms of aggression as relational aggression, which refers to types of behaviours in which others are excluded or teased by their peers (Bjorkquist et al., 1992; Buhs et al., 2005; Crick et al., 1997).

Many theories have been developed as to the origins of externalising behaviour problems. These theories mainly include both biological and genetic factors in combination with environmental factors (Haberstick et al., 2005). Moffitt (1993) has theorised that a child displaying externalising behaviours may have had neural development disruptions. These disruptions are thought to be caused by such things as maternal drug abuse, poor pre-natal nutrition or pre or post-natal exposure to toxic agents (Moffitt, 1993). It is suggested that these biological and heritable differences in the child's neuropsychological health can leave them vulnerable to developing externalising behaviour problems. It is also noted that the children who are more at risk of these developmental difficulties are often the children who are frequently exposed to difficult family environments (Moffitt, 1993). Miller-Lewis and colleagues identified three major domains of risk factors for children developing externalising behaviours (Miller-Lewis et

al., 2006). The first factor refers to the characteristics of the child, including genetic risk and temperament, the second factor emphasises parenting techniques and the third factor involves family adversities (Miller-Lewis et al., 2006).

The environmental factors influencing the development of externalising behaviour problems are also greatly emphasised by Gottfredson and Hirschi (1990). Gottfredson and Hirschi (1990) highlight the absence of appropriate nurturance, discipline and training in the parenting and family environments of children displaying prominent externalising behaviour problems. Research within the area of the origins of these types of behavioural problems is strongly directed towards early child temperaments and ineffective parental discipline as the larger contributors and that the process of developing externalising behaviours is a reciprocal relationship between the child and their environment. This is in reference to the child's behaviours interacting with their environment and consequently the ways in which others react to them (Snyder et al., 2005).

A child with a difficult temperament combined with an inappropriate environment can be left with fewer opportunities for both cognitive and social development (Gottfredson & Hirschi, 1990; Moffitt, 1993). Externalising behaviour problems are often accompanied by developmental deficits, learning difficulties and inappropriate social adjustments (Haberstick et al., 2005). These behaviour problems can impede a child's receptive listening and reading, problem solving, expressive speech and writing and memory (Moffitt, 1993). The inattention and impulsivity displayed with hyperactivity and attention deficit can also contribute to neurological maldevelopments such as comportmental learning disabilities in which the areas of the frontal lobe do not develop

appropriately (Moffitt, 1993). Due to the reciprocal nature of the development of externalising behaviours and the interactions formed between the child and their environment, the opportunities for the child to develop appropriately are diminished. As the process continues the opportunities for correcting the child's developmental difficulties also diminishes (Snyder et al., 2005). The earlier the intervention, the more likely a successful outcome for the child when entering or continuing into the educational system and indeed for occupational and interpersonal experiences outside of the schooling system (Miller-Lewis et al., 2005).

Conduct Disorder, Antisocial Behaviours and other Potential Consequences of Externalising Behaviours

More serious developmental maladaptions noticed in adolescent and adult behavioural problems usually receive considerate community and legal attention as compared to the externalising behaviours noticed within the early childhood years (Bennett et al., 1998; Gottfredson & Hirschi, 1990). Unsuccessful attempts at correcting later life behavioural issues have lead to many investigative endeavours towards the discovery of the origins of these disorders (Moffitt, 1993). Behavioural problems such as conduct disorder and antisocial behaviours have been given a disproportionate amount of attention due to the nature of the consequences of these disorders (Bennett et al., 1998; Gottfredson & Hirschi, 1990). The criminal activities and disruptive behaviours associated with these disorders and the unsuccessful rehabilitation interventions at such late stages in development have redirected attempts towards the younger childhood years (Moffit, 1993). Many studies have been directed to the early childhood years from as

early as infancy to the preschool years where externalising behaviour problems have been implicated as origins in the progression of these later life disorders (Galen & Underwood, 1997; Moffitt, 1993).

As with externalising behaviour problems, the origins of conduct disorder and antisocial behaviours have been traced back to a genetic or biological predisposition combined with environmental factors (Miller et al., 2006; Storch & Ledley, 2005). Externalising behaviour problems have also been identified as important indicators in the development of conduct disorder and antisocial behaviours. Subsequently they have become important focal points for interventions in the correction of these later life behavioural disorders (Gottfredson & Hirschi, 1990; Moffitt, 1993). Those externalising behaviours that are not effectively overcome in early childhood development are gradually elaborated by the reciprocal relationship between the child and their environment creating the more serious disorders in adolescence and adulthood (Snyder et al., 2005).

Externalising behaviours that persist into adolescence and adulthood have the tendency to undermine appropriate group relations and the ability to achieve collective ends (Gottfredson & Hirschi, 1990). This progression further reduces the opportunities for these individuals to correct their behaviours and often leads to the destruction of their interpersonal relationships and also affects their physical and emotional health as well as their economic well being (Haberstick et al., 2005). Persistent disorders developed through externalising behaviours are often linked very closely with criminal and delinquent behaviours (Moffit, 1993). Offenders who are identified as having displayed externalising behaviours in early childhood have been connected with the highest rates of

re-offending and have the least success rates in rehabilitation interventions (Gottfredson & Hirschi, 1990; Moffitt, 1993).

## Transition into the Education System

The transition into kindergarten and subsequently into preschool and primary school can be a difficult and challenging one for children (Bartholomew & Gustafsson, 1997; Jewett, Tertell, King-Taylor, & Parker, 1998). The new experiences and situations in which children find themselves can be difficult to negotiate without any prior introduction to these situations (Pianta, Cox, Taylor, & Early, 1999; Schulting, Malone, & Dodge, 2005). Not only are children placed into classrooms with large numbers of other children who they are likely not to have met before, but they are also faced with only one or two adults in these large classrooms (Bartholomew & Gustafsson; Jewett et al.). Most of the situations that these children would have faced outside the classroom situation would have been experienced in the company of their parents (Pianta et al., 1999). The new responsibilities placed on these children to follow the rules, listen to the teacher and work independently can be quite challenging. Especially as their parents would have been the only people the child was to answer to before class (Bartholomew & Gustafsson; Jewett et al.). The children would not have been able to familiarise themselves with the teacher before they are expected to listen to instructions and follow class rules without causing too much disruption. This change in authority can be very difficult for both the child and the teacher (Schulting et al., 2005; Walker, Cheney, Stage, & Blum, 2005).

Common challenges that face any child within the transition into the education system can be exaggerated for children with externalising behaviour problems as the behaviour problems the child displays can interfere with their transition into the classroom (Hinshaw et al., 1993; Liu, 2004). The characteristics of the child, including their aggressive tendencies towards other children and their inappropriate responses to authority figures, will interact with their school environment subsequently creating a more difficult situation for the child (Rimm-Kaufman, La Paro, Downer, & Pianta, 1999). The externalising behaviours may make it more difficult for the child to engage in effective social interactions with their peers and their teachers and may also interfere with their ability to concentrate on their work and listen to the teacher's instructions (Gottfredson & Hirschi, 1990; Moffitt, 1993). The reciprocal relationships formed between the child and their teachers and peers will also influence the way in which others interact with the child and how teachers approach the inappropriate behaviours the child displays (Haberstick et al., 2005; Snyder et al., 2005). With these added difficulties, a child with externalising behaviour problems may inadvertently create an environment within their school that decreases their opportunities for developmental improvements (Gottfredson & Hirschi, 1990; Moffitt, 1993). Student-teacher relationships with problem behaviour children are often not as nurturing and supportive as what is needed for these children (Galen & Underwood, 1997; Hamre & Pianta, 2001). Oppositional and aggressive behaviours may hinder the teacher's efforts to create a sufficient bond with the child and disciplinary measures applied to attend to the child's behaviours may not be as effective for the child without an adequate connection with their teacher (Tremblay et al.,

1992). A more detailed discussion covering the importance of student-teacher relationships and disciplinary approaches is provided below.

Externalising behaviour problems not only affect a child when they are entering the education system, their transitions into various classrooms and their developmental opportunities within these differing classrooms can also be greatly hindered (Clark, Prior, & Kinsella, 2002; Miller-Lewis et al. 2006). Those children who eventually begin to overcome minor behavioural problems throughout the course of the year often experience reoccurrences of problems when entering the next classroom with new challenges and different teachers. The transition between teachers and academic challenges can be affected by the child's ongoing behavioural issues, that had not been resolved through their first year in the school (Fergusson, 1998; Clark et al., 2002). A new teacher who has not yet had a chance to form the appropriate relationship with the child may not adequately approach the new situations that the child needs to readapt to (Carpenter & Nangle, 2006; Cote, Vaillancourt, LeBlanc, Nagin, & Tremblay, 2006). Adequate relationships that are needed for children displaying externalising problems often take a little longer for teachers to develop as compared with those with children not displaying these particular behavioural challenges. Children displaying externalising behaviours are often those most in need of a close and supportive relationship with their teacher and are often the most unlikely to develop them due to the negative interactions between the child's behaviours and their environment (Romano, Tremblay, Boulerice, & Swisher, 2005; Cote et al, 2006).

The continued struggle between the child's behaviours and attempts to correct them throughout the child's educational experiences in the early school years greatly

affects their development in both their academic and social challenges (Bennett, Lipman, Racine, & Offord, 1998; Romano et al, 2005). In addition to these issues, the inappropriate behaviours developed by these children in areas regarding their relationships with adults and authority figures can further affect their progression through adolescence and adulthood with many children falling into problems with the legal system (Bennett et al, 1998; Schumann, 2007). These problem behaviours that persist into adolescence and adulthood are those that are more prominently noticed by the community and usually receive much more attention.

## Family Environments and Parental Influences

The unsuccessful attempts in later life to counteract the problems originating from externalising behaviour problems from early childhood appear to be quite simple to correct in the early years when compared to the difficulties experienced with later attempts (Miller-Lewis et al., 2006). The most positively influential strategies in early childhood are those that focus on the family environment. It has been noted that the family environment has a large influence in the development of externalising behaviours therefore concentration on this area within a child's development appears to be the most effective direction for interventions (Haberstick et al., 2005). Gottfredson and Hirschi (1990) state that effective socialization that is essential in correcting a child's problem behaviours can be achieved through appropriate discipline, supervision and affection. Moffitt (1993) also states that in a nurturing environment toddler's behaviour problems can often be easily corrected. Behavioural regulation capacities are usually accepted as part of the normal developmental pathways for the redirection of many behaviours that

toddlers normally display (Tremblay, Vitaro, Gagnon, Piche, & Royer, 1992). Issues within the family environment that need to be addressed are the attachment between parent and child, parental supervision, the recognition of deviant behaviours and the punishment of deviant acts (Gottfredson & Hirschi, 1990; Miller-Lewis et al., 2006). With the assistance of willing parents and a supportive and cooperative family environment externalising behaviours can be effectively corrected before more severe behavioural problems are established.

The deceivingly simple interventions necessary for redirection of the child's behavioural issues are not often as obtainable as implied. Infants with a genetic or biological predisposition for developing externalising behaviours are disproportionately found within environments that are not conducive to the progression of healthy neural development (Moffitt, 1993). Genetic or biological predispositions for externalising behaviours have been identified as being highly heritable (Huesmann, Eron, Lefkowitz, & Walder, 1984). Therefore, the familial environment in which the child is usually exposed to is generally associated with disadvantage and deviance due to the traits displayed within the child's parents (Moffitt, 1993; Snyder et al., 2005).

A study conducted by Huesmann, Eron, Lefkowitz and Walder (1984) identified intergenerational transmission of externalising behaviours throughout three generations of participants. Similar temperaments and personality traits were identified between grandparents, parents and children. Huesmann and colleagues highlighted the influence of heritable traits within externalising behaviours and the influence of these traits on the family environment in which the most vulnerable children are exposed to. Those children who have the highest risk of developing externalising behaviours are often exposed to

environments in which their parents are unlikely to possess the necessary psychological or physical resources to be able to constructively cope with their children's difficult behaviours (Huesmann et al., 1984; Moffitt, 1993). Although this hindrance to a vulnerable child's development appears to be a difficult factor to overcome, various other adult role models within a child's life can have a large impact on a child and can prove to be an essential resource in the correction of maladaptive development (Hamre & Pianta, 2001; La Paro, Rimm-Kaufman, & Pianta, 2006).

## The Student-teacher Relationship

A child's first transition into a classroom is not usually with the comforting company of their parents (Birch & Ladd, 1998; Schulting et al., 2005). Within the classroom, a parent's authority is substituted for that of the teacher who is the guiding adult and role model for the students in the class. Teachers spend a considerable amount of time with their students both in the classroom, in the playground and also on school excursions (Crosnoe et al., 2004; Marshall & Weinstein, 1986). The various experiences and situations that the students encounter within the school setting are often unique with the teacher becoming the person in whom the students will look towards for guidance on how to behave and react when they are unsure of what is expected of them (Howes, Hamilton, & Matheson, 1994). Teachers not only provide guidance and support in students' academic challenges and achievements, they also have integral roles in their students' social, emotional and behavioural development (Crosnoe et al., 2004; Howes et al., 1994).

The multifaceted role of the teacher within the classroom and the large amount of time that the teacher spends with each child creates an emotional bond, which can be either positive or negative, between the teacher and the child (Birch & Ladd, 1998; Marshall & Weinstein, 1986). The bond that develops between the student and the teacher is often referred to as the student-teacher relationship. As with the interactions between a child's behaviour and their environment, the student-teacher relationship is a reciprocal process (Birch & Ladd, 1998; Howes et al., 1994). Characteristics of both the student and the teacher, in addition to their environment, interact to influence the type of relationship that is developed.

Behaviours displayed by the student within the classroom and the interactions that take place between the child and their peers can initiate certain reactions from their teachers (Birch & Ladd, 1998; Marshall & Weinstein, 1986). Teachers' responses are individualised in reflection of each student within their class. Activities, interactions, rewards and punishments are attempted to be kept relatively constant across all children within the classroom so as not to disadvantage some children in comparison to others (Birch & Ladd, 1998; Crosnoe et al., 2004). However, the characteristics of each child can either positively or negatively influence these processes. Children with externalising behaviour problems are often more difficult to manage (Birch & Ladd, 1998; Howes et al., 1994). Therefore, these children may experience relatively harsher punishments that do not assist in correcting their behaviours and are not appropriate for their development as well as receiving less support and affection from their teachers (Marshall & Weinstein, 1986).

The student-teacher relationship is also a reflection of the characteristics of the teacher. A teacher's sense of self efficacy in their teaching abilities and their particular beliefs of their role as a teacher can significantly impact on the relationships they form with their students (Birch & Ladd, 1998). Prior experience with problem behaviours and their opinions on the reasons behind the child's externalising behaviours can also have a substantial impact on the student-teacher relationship (Crosnoe et al., 2004; Howes et al., 1994). The individual aspect of both the student and the teacher influence the type of relationship or bond they will develop as does the environment in which the two interact (Birch & Ladd, 1998; Marshall & Weinstein, 1986).

The classroom environment, including the physical and emotional arrangement of the class, can be an influential factor within the student-teacher relationship that often goes unnoticed (Marshall & Weinstein, 1986). A select amount of research has focused on issues within the classroom environment on a more physical level. Knight, Keifer-Boyd and Amburgy (2004) highlighted the impact of the arrangement of the classroom and how various physical arrangements can impact on the power relationships within the class and how this influences the connections teacher form with their students. Liu (1997) related back to experiences within classrooms in Chinese schools where students and teachers were able to develop closer emotional bonds due to the emotional arrangement of the classes. Instead of changing classrooms and teachers, students stayed within their particular classroom throughout the day for the entire year forming a sense of belonging and closer, more supportive relationships with their teachers. Within these classroom environments students displayed more positive school attitudes, higher academic achievements and more appropriate emotional and social behaviours (Liu, 1997).

Behaviours and interpersonal interaction styles identified in children as they enter kindergarten have displayed significant predictive abilities towards the types of relationships that are formed between these children and their teachers (Birch & Ladd, 1998; Crosnoe et al., 2004). Children who do not display externalising behaviours and whom are relatively easier for teachers to connect to are more likely to form closer and more supportive relationships with their teachers (Birch & Ladd, 1998; Howes et al., 1994). Close and supportive student-teacher relationships have been associated with positive child outcomes including positive attitudes towards school, increased participation in classroom activities and academic competence (Howes et al, 1994). In contrast to this, children with externalising behaviour problems are more likely to develop student-teacher relationships that are characterised with conflict (Birch & Ladd, 1998; Marshall & Weinstein, 1986). These relationships are associated with negative child outcomes including unfavourable school attitudes, school avoidance, disengagement in the classroom and poor academic performance.

The student-teacher relationships that are formed may be reflections of the children's behaviours and in particular the externalising behaviour problems of some children, but conflictual relationships can be redirected to be beneficial for the child (Crosnoe et al., 2004; Marshall & Weinstein, 1986). Student-teacher relationships are important aspects of the school environment and essential to appropriate development. The quality of the student-teacher relationship has been associated with the child's ability to engage in the instructional resources presented within the classroom (Hamre & Pianta, 2001; Twemlow & Fonagy, 2005). The experience of a sense of belonging and supportive relationships with teachers and peers motivates a child to actively and

appropriately participate in classroom activities (Birch & Ladd, 1998; Hughes & Kwok, 2007). Without this positive environment the children do not have appropriate access to the resources they need to enhance appropriate academic and psychological development (Marshall & Weinstein, 1986; Hamre & Pianta, 2001).

Positive student-teacher relationships and the quality of the classroom environment influences the child's behaviour within the classroom and can also serve as a protective factor against the environments they are exposed to outside the classroom (Hamre & Pianta, 2001; Hughes & Kwok, 2007). Unsupportive and disruptive home environments can affect a child's academic performance and their social behaviours (Hamre & Pianta, 2001; Howes et al., 1994). An appropriate learning environment established within the classroom can give the child the much needed support and encouragement that they do not receive outside the classroom (Birch & Ladd, 1998; Hamre & Pianta, 2001).

Teachers can often be unaware of the importance and influence that the student-teacher relationship can have on their students (Craig, 1999; Marshall & Weinstein, 1986). A conscious awareness of the importance of the student-teacher relationship and how it develops and progresses is essential in creating effective interventions within the classroom in the redirection of problem behaviours (Craig, 1999; Howes et al., 1994). Obstacles and inhibitions can arise within these relationships from habitual patterns of resistance, avoidance and denial in which past experiences have shaped reactions to painful experiences (Birch & Ladd, 1998; Craig, 1999). These processes occur on both sides of the relationship, from students' past experiences and teachers' (Craig, 1999; Donlevy, 2001). Teachers whom have encountered children with externalising

behaviours in previous classrooms and in which have been unsuccessful in managing their problem behaviours may have preconceived ideas on the likely outcomes of these children (Craig, 1999; Marshall & Weinstein, 1986). Past experiences can influence the teacher's responses to the children presently in their class and can affect the approaches they choose to utilise to manage the problem behaviours (Howes et al., 1994). These processes can hinder the development of positive and appropriate student-teacher relationships and need to be identified and understood for effective relationships to develop (Craig, 1999; Marshall & Weinstein, 1986).

With full awareness of the processes behind the development of the student-teacher relationship and how both the teacher and the child influence the relationship effective measures can be initiated to assist in creating a more positive environment within the classroom (Craig, 1999). Positive student-teacher relationships create a trusting and supportive learning environment that encourages the student's appropriate development both academically and emotionally (Hamre & Pianta, 2001). Within these environments the close and supportive relationships that are formed subsequently influence the disciplinary methods utilised within the classroom forming more individualised approaches according to the children's needs (Howes et al., 1994). As the positive relationships between the students and the teachers progress the teachers develop a greater understanding of the child's behaviours and how they are best approached. The knowledge gained from these relationships shapes the disciplinary measures that are implemented for each child to form more appropriate and effective ways of correcting the externalising behaviour problems that the children display (Donlevy, 2001; Marshall & Weinstein, 1986).

Classroom Discipline and Correctional Measures for Externalising Behaviours

The quality of the classroom environment and the disciplinary approaches that teachers apply often predict any behavioural changes in their students (Rimm-Kaufman, La Paro, Downer, & Pianta, 2005). Students that are ineffectively managed in the early school years tend to sustain their externalising behaviour problems throughout school and into adolescence and adulthood (Farmer, Goforth, Hives, & Aaron, 2006). Students who are managed with disciplinary approaches that indirectly reinforce their externalising behaviours have decreased opportunities to develop appropriately and to overcome their problem behaviours (Farmer et al., 2006; Rimm-Kaufman et al., 2005). Children will model the behaviours of their teachers. With negative approaches a child is less likely to learn any alternative approaches to challenging situations. If only negative approaches are shown the child will reflect these interactions in their own behaviours (Bickley-Green, 2007; Rimm-Kaufman et al., 2005).

Positive approaches to discipline that assist in teaching and reinforcing appropriate behaviours are more effective in correcting externalising problems (Farmer et al., 1006). However, children displaying externalising behaviours often do not receive these positive approaches as their behaviours influence more negative reactions from their teachers (Farmer et al., 2006; Rimm-Kaufman et al., 2005). These negative reactions are more likely to reinforce the externalising behaviours especially as these children often experience more complex family environments with negativity in their home lives (Buhs, Ladd, & Herald, 2005; Dodge & Coie, 1987). Therefore, these children will not benefit from constant negative interactions. They are less likely to

experience positive modelling at home extenuating the necessity for a positive environment within the classroom (Buhs et al., 2005; Crick et al., 1997).

Positive schooling environments and caring relationships with teachers are essential for successful development both educationally and socially (Strahan, Cope, Hundley, & Faircloth, 2005). Teachers can create warm supportive environments through demonstrating a deep knowledge of individual students, linking enquiry and collaboration within assignments and classroom tasks and by creating an environment where students are actively involved in classroom decisions on a continuous basis (Rimm-Kaufman et al., 2005; Strahan et al., 2005). This type of environment promotes autonomy and creative thinking and encourages students to develop prosocial behaviours towards authority figures and peers (Derogene, 2007; Hendley, 2007).

Unfortunately many negative and inappropriate approaches towards problem behaviours are usually established within classrooms due to the difficult nature of these behaviours (Bickley-Green, 2007; Farmer et al., 2006). Children's externalising behaviours are often managed with methods that attempt to control the child (Farmer et al., 2006; Strahan et al., 2005). Students are regularly redirected without the addition of any elaboration on their behaviours to assist them in understanding why their behaviours are considered to be inappropriate (Bickley-Green, 2007; Derogene, 2007). These children are also rarely acknowledged for their good behaviours and seldom receive any praise (Farmer et al., 2006; Rimm-Kaufman et al., 2005). Subsequently, children displaying externalising behaviours are also less likely to become actively engaged in classroom tasks (Derogene, 2007; Strahan et al., 2005).

Children who are excluded from classroom activities, either by themselves or by others, are often more likely to develop negative expectations of others and are more inclined to feel offended and insecure (Derogene, 2007; Strahan et al., 2005). These children are usually unsuccessful in developing appropriate inferences about their environment, as they have not been shown alternative thoughts or behaviours on how to interact in these situations (McMasters, Jr., Hearn, Georgi, & Bentley, 2006; Strahan et al., 2005). Punishments and rewards involving extrinsic motivators are not appropriate for children with externalising behaviours as these techniques do not assist in their development of internal concepts of prosocial behaviour (Bickley-Green, 2007; Derogene, 2007).

Concentrating on the positive achievements of these children without acknowledgement or punishment of their deviant behaviours can also reinforce the externalising behaviour problems (Bickley-Green, 2007; Rimm-Kaufman et al., 2005). Ignoring inappropriate behaviours can send the wrong messages to both the child whom engaged in the deviant behaviour and the children who saw the child go unpunished (Farmer et al., 2006; Strahan et al., 2005). Although the teachers are attempting to retain a positive atmosphere by encouraging the good behaviour, they are modelling inappropriate behaviour through ignoring the deviant acts (Bickley-Green, 2007; Derogene, 2007). The deviant behaviour may become accepted as normal by the child who was not corrected and also the children who witnessed the deviant behaviour (McMasters, Jr., Hearn, Georgi, & Bentley, 2006).

Positive discipline aims to give praise for appropriate behaviour as well as giving reasoning and consequences for the inappropriate behaviours (Bickley-Green, 2007;

Strahan et al., 2005). Positive discipline can involve withholding privileges and sessions of time out with the addition of teaching the appropriate social skills for the students to initiate better behavioural choices (Farmer et al., 2006; McMasters, Jr. et al., 2006). Successful classroom management not only focuses on encouraging academic achievement it also promotes the development of self-discipline in an emotionally safe environment (Hundley, 2007; Strahan et al., 2005).

The Role of Teachers in Assisting Children with Externalising Behaviour Problems

A combined focus on student-teacher relationships and disciplinary approaches within the classroom are the most effective interventions within the classroom to redirect the externalising behaviour problems that some students display (Farmer, Goforth, Hives, & Aaron, 2006). Proactive and prevention strategies concentrating on supporting students and rearranging their environments so as to avoid difficult situations where the children are more likely to misbehave have already shown great success when they have been implemented within schools (Bohanon, Fenning, Carney, & Minnis-Kim, 2006; Hawken, MacLeod, & Rawlings, 2007). Interventions including positive behaviour supports (Bohanon et al., 2006; Hendley, 2007), competence enhancement behaviour management (Farmer et al., 2006) and behaviour education programs (Hawken et al., 2007) have lead to improvements in academic achievement and an increase in appropriate behaviour when applied to classrooms where there are children who have externalising behaviour problems (Farmer et al., 2006; Hendley, 2007).

Effective interventions, such as the positive behaviour supports from Bohanon and colleagues (2006) and Hendley (2007), focus on assessing the classroom

environment and rearranging both the physical and emotional aspects of the classroom to attempt to reduce the students externalising behaviours. These interventions are individualised to the students and their classroom so that the factors influencing those particular children's behaviours are assessed and managed in the most effective and appropriate manner for the individual student (Bohanon et al., 2006; Hendley, 2007). The positive behaviour supports intervention highlights the importance of identifying maladaptive behaviours with educators collaborating to develop more effective proactive interventions that aim to prevent externalising behaviours rather than concentrating on how to punish them (Bohanon et al., 2006; Hendley, 2007).

Competence enhancement behaviour management and behaviour education programs also highlight the importance of preventing externalising behaviour problems so that punishments are not necessary (Farmer et al., 2006; Hawken et al., 2007). However, these interventions do not ignore the importance of appropriate punishment when the preventions strategies are ineffective (Farmer et al., 2006; Hawken et al., 2007). In particular, the behaviour education program encompasses a school-wide behaviour support system with primary, secondary and tertiary level to the intervention. The primary level is focused on prevention strategies. When these are not successful the secondary level introduces disciplinary measures and when these are not successful the tertiary level introduces stronger penalties (Hawken et al., 2007). Prevention and proactive measures of managing externalising behaviour problems create effective interventions with the inclusion of appropriate discipline and penalties to help support this system (Bohanon et al., 2006; Farmer et al., 2006; Hendley, 2007).

#### Conclusion

Externalising behaviour problems that children develop before entering the education system can greatly influence their development both academically and socially within the classroom context and can persist throughout school and into adolescence and adulthood (Dodge & Coie, 1987; Fergusson, 1998; Pianta et al., 1999). The developmental difficulties that these children encounter can lead to more severe behavioural disorders in their later life that are quite difficult to correct (Moffitt, 1993; Schumann, 2007). When the externalising behaviours are correctly identified and managed within the early school years many of the developmental problems these children may encounter can be effectively redirected (Gottfredson & Hirschi, 1990; Storch & Ledley, 2005).

The classroom environments in which these children spend a large amount of their early childhood years can greatly influence the children's development (Rimm-Kaufman et al., 2005; Schulting, Malone, & Dodge, 2005). The relationships the children develop with their teachers and the strategies in which the teachers create to manage the externalising behaviours can be utilised to create effective interventions for implementation within the classrooms (La Paro, Rimm-Kaufman, & Pianta, 2006; McMasters et al., 2006). Creating warm and supportive student-teacher relationships and approaching externalising behaviours with proactive disciplinary approaches in a positive learning environment can effectively redirect children's externalising behaviour problems before more difficult behavioural disorders are developed (Crosnoe, Kirkpatrick Johnson, & Elder Jr., 2004; Derogene, 2007).

### References

- Bartholomew, L., & Gustafsson, U. (1997). Transition from nursery to primary school:

  Conductive to learning? The story of 'O'. *International Journal of Early*Childhood, 29, 1-8.
- Bennett, K.J., Lipman, E.L., Racine, Y., & Offord, D.R. (1998). Annotation: Do measures of externalising behaviour in normal populations predict later outcome?:
   Implications for targeted interventions to prevent conduct disorder. *Journal of Child Psychology and Psychiatry*, 39, 1059-1070.
- Bickley-Green, C. (2007). Visual arts education: Teaching a peaceful response to bullying. *Art Education*, 60, 6-13.
- Birch, S.H., & Ladd, G.W. (1998). Children's interpersonal behaviours and the teacherchild relationship. *Developmental Psychology*, *34*, 934-946.
- Blacher, J., & Eisenhower, A. (2006). Better than the teacher's pet: Building relationships with teachers in the early school years. *The Exceptional Parent*, *36*, 69-72.
- Björkquist, K., Lagerspetz, K.M., & Kaukianen, A. (1992). Do girls manipulate and boys fight? Developmental trends in regard to direct and indirect aggression.

  \*Aggressive Behaviour, 18, 117-127.
- Bohanon, H., Fenning, P., Carney, K.L., & Minnis-Kim, M.J. (2006). School wide application of positive behaviour support in an urban high school: A case study. *Journal of Positive Behaviour Interventions*, 8, 131-146.
- Buhs, E.S., Ladd, G.W., & Herald, S.L. (2005). Peer exclusion and victimisation:

  Processes that mediate the relation between peer group rejection and children's

- classroom engagement and achievement? *Journal of Educational Psychology*, 98, 1-13.
- Clarke, C., Prior, M., & Kinsella, G. (2002). The relationship between executive function abilities, adaptive behaviour and academic achievement in children with externalising behaviour problems. *Journal of Child Psychology and Psychiatry*, 43, 785-796.
- Craig, R.P. (1996). Student-teacher relationship: A Buddhist perspective. *The Clearing House*, 69, 285-287.
- Crick, N.R., Casas, J.F., & Mosher, M. (1997). Relational and overt aggression in preschool. *Developmental Psychology*, 33, 579-588.
- Crosnoe, R., Kirkpatrick Johnson, M., & Elder Jr., G.H. (2004). Intergenerational bonding in school: The behavioural and contextual correlates of student-teacher relationships. *Sociology of Education*, 77, 60-82.
- Derogene, L.P. (2007). Scolding: Why it hurts more than it helps. *Childhood Education*, 83, 330-332.
- Dodge, K.A., & Coie, J.D. (1987). Social information processing factors in reactive and proactive aggression in children's peer groups. *Journal of Personality and Social Psychology*, 53, 1146-1158.
- Donlevy, J. (2001). High-stakes environments and effective student-teacher relationships:

  Some lessons from special education. *International Journal of Instructional Media*, 28, 1-8.
- Farmer, T.W., Goforth, J.B., Hives, J., & Aaron, A. (2006). Competence enhancement behaviour management. *Preventing School Failure*, 50, 39-45.

- Fergusson, D.M. (1998). Stability and change in externalising behaviours. *European Archives of Psychiatry and Clinical Neuroscience*, 248, 4-13.
- Galen, B.R., & Underwood, M.K. (1997). A developmental investigation of social aggression among children. *Developmental Psychology*, 33, 589-600.
- Gottfredson, M., & Hirschi, T. (1990). *A general theory of crime*. Stanford, CA: Stanford, University Press.
- Haberstick, B.C., Schmitz, S., Young, S.E., & Hewitt, J.K. (2005). Contributions of genes and environments to stability and change in externalising and internalising problems during elementary and middle school. *Behaviour Genetics*, *35*, 381-396.
- Hamre, B.K., & Pianta, R.C. (2001). Early teacher-child relationships and the trajectory of children's school outcomes through eighth grade. *Child Development*, 72, 625-638.
- Hawken, L.S., MacLeod, K.S., & Rawlings, L. (2007). Effects of the behaviour education program (BEP) on office discipline referrals of elementary school students.

  \*\*Journal of Positive Behaviour Interventions, 9, 94-102.
- Hendley, S.L. (2007). Use positive behaviour support for inclusion in the general education classroom. *Intervention in School and Clinic*, 42, 225-229.
- Hinshaw, S.P., Lahey, B.B., & Hart, E.L. (1993). Issues of taxonomy and co morbidity in the development of conduct disorder. *Development of Psychopathology*, 5, 31-49.
- Howes, C., Hamilton, C.E., Matheson, C.C. (1994). Children's relationships with peers:

  Differential associations with aspects of the teacher-child relationship. *Child*Development, 65, 253-263.

- Huesmann, L.R., Eron, L.D., Lefkowitz, M.M., & Walder, L.O. (1984). Stability of aggression over time and generations. *Developmental Psychology*, 20, 1120-1134.
- Huges, J., & Kwok, O. (2007). Influence of student-teacher and parent-teacher relationships on lower achieving readers' engagement and achievement in the primary grades. *Journal of Educational Psychology*, 99, 39-51.
- Jewett, J., Tertell, L., King-Taylor, M., & Parker, D. (1998). Four early childhood teachers reflect on helping children with special needs make the transition to kindergarten. *The Elementary School Journal*, *98*, 329-339.
- Knight, W.B., Keifer-Boyd, K., & Amburgy, P.M. (2004). Revealing power: A visual culture orientation to student-teacher relationships. *Studies in Art Education*, 45, 270-274.
- La Paro, K.M., Rimm-Kaufman, S.E., & Pianta, R.C. (2006). Kindergarten to first grade: Classroom characteristics and the stability and change of children's classroom experiences. *Journal of Research in Childhood Education*, 21, 189-202.
- Liu, J. (1997). The emotional bond between teachers and student: Multi-year relationships. *Phi Delta Kappan*, 79, 156-158.
- Liu, J. (2004). Childhood externalising behaviour: Theory and implications. *Journal of Child and Adolescent Psychiatric Nursing*, 17, 93-103.
- Marshall, H.H., & Weinstein, R.S. (1986). Classroom context of student-perceived differential teacher treatment. *Journal of Educational Psychology*, 78, 441-453.
- McMasters Jr., D.N., Hearn, T., Georgi, R., & Bentley, C.J. (2006). When does an incident of student academic misconduct, within a professional preparation

- program, pass from "ignore", to "reprimand", to "expel"? *Journal of Physical Education, Recreation and Dance, 77*, 13-16.
- Miller-Lewis, L.R., Baghurst, P.A., Sawyer, M.G., Prior, M.R., Clark, J.J., Arney, F.M.,
  & Cabone, J.A. (2006). Early childhood externalising behaviour problems: Child,
  parenting, and family-related predictors over time. *Journal of Abnormal Child Psychology*, 34, 891-906.
- Moffitt, T.E. (1993). Adolescence-limited and life-course persistent behaviour: A developmental taxonomy. *Psychological Review*, *100*, 674-701.
- Pianta, R.C., Cox, M.J., Taylor, L., & Early, D. (1999). Kindergarten teachers' practices related to the transition to school: Results of a national survey. *The Elementary School Journal*, 100, 71-86.
- Rimm-Kaufman, S.E., La Paro, K.M., Downer, J.T., & Pianta, R.C. (2005). The contribution of classroom setting and quality of instruction to children's behaviour in kindergarten classrooms. *The Elementary School Journal*, 105, 377-394.
- Schulting, A.B., Malone, P.S., & Dodge, K.A. (2005). The effect of school-based kindergarten transition policies and practices on child academic outcomes. Developmental Psychology, 41, 860-871.
- Schumann, D. (2007). Punishment in schools in post war West Germany, 1945-1975.

  German History, 25, 192-218.
- Snyder, J., Cramer, A., Afrank, J., & Patterson, G.R. (2005). The contributions of ineffective discipline and parental hostile attributions of child misbehaviour to the

- development of conduct problems at home and school. *Developmental Psychology*, 41, 30-41.
- Storch, E.A., & Ledley, D.R. (2005). Peer victimisation and psychosocial adjustment in children: Current knowledge and future directions. *Clinical Pediatrics*, 44, 29-38.
- Strahan, D.B., Cope, M.H., Hundley, S., & Faircloth, C.V. (2005). Positive discipline with students who need it most: lessons learned in an alternative approach. *The Clearing House*, 79, 25-32.
- Tremblay, R.E., Vitaro, F., Gagnon, C., Piche, C., & Royer, N. (1992). A prosocial scale for the preschool behaviour questionnaire: Concurrent and predictive correlates.

  International Journal of Behavioural Development, 15, 227-245.
- Twemlow, S.W., & Fonagy, P. (2005). The prevalence of teachers who bully students in school with differing levels of behavioural problems. *The American Journal of Psychiatry*, 162, 2387-2390.
- Walker, B., Cheney, D., Stage, S., & Blum, C. (2005). School wide screening and positive behaviour supports: Identifying and supporting students at risk for school failure. *Journal of Positive Behaviour Interventions*, 7, 194-205.

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Student-Teacher Relationships and Teacher Discipline: Their Relation to the

Externalising Behaviours of Kindergarten to Year 1 Students

Emma Spencer

Student-Teacher Relationships and Teacher Discipline: Their Relation to the Externalising Behaviours of Kindergarten to Year 1 Students

#### Abstract

Children who display externalising behaviour problems often face difficulties in their academic and social development within the education system. Student-teacher relationships and teacher disciplinary techniques can be essential components of intervention strategies to redirect these externalising behaviours. This study used a cross-sectional, correlational design to examine the influence of student-teacher relationships and teacher disciplinary techniques on students' externalising behaviours. Results indicated student-teacher relationships as a significant predictor with closeness/warmth student-teacher relationships and intrinsic disciplinary techniques negatively correlating with externalising behaviours and conflict/negative interaction positively correlating with externalising behaviours. However, extrinsic disciplinary techniques unexpectedly negatively correlated with students' externalising behaviours. Further research is needed on the relationships between student-teacher relationships and teacher disciplinary techniques.

Emma Spencer
Dr Kevin Runions

Student-Teacher Relationships and Teacher Discipline; Their Influences on the Externalising Behaviours of Kindergarten to Year 1 Students

The redirection of externalising behaviour problems can be a vital component for the appropriate social and academic development of a child (Hinshaw, Lahey, & Hart, 1993; Liu, 2004). When children who have difficult temperaments and who display learning and developmental difficulties are exposed to damaging environmental influences they are at an increased risk for developing externalising behaviour problems (Gottfredson & Hirschi, 1990; Moffitt, 1993). These predispositions to externalising behaviour problems exist in a reciprocal relationship where each factor further contributes to the other factors (Gottfredson & Hirschi, 1990; Moffitt, 1993). Due to this cyclical relationship the temperament and developmental difficulties of the child in combination with their environment can gradually progress the child's externalising behaviours into more severe disorders later in their lives (Hinshaw, Lahey, & Hart, 1993; Liu, 2004). These can include conduct disorder and anti-social behaviours that can persist throughout the child's adult life (Gottfredson & Hirschi, 1990; Moffitt, 1993). Within a nurturing environment the problem behaviours that a child displays can often be corrected and any developmental difficulties they experience can be overcome (Haberstick, Schmitz, Young, & Hewitt, 2005; Snyder, Cramer, Afrank, & Patterson, 2005).

Unfortunately children who typically develop externalising behaviour problems tend to be exposed to difficult family environments with ineffective parental care and discipline (Gottfredson & Hirschi, 1990; Moffitt, 1993). Children exposed to these damaging environments can greatly benefit from a supportive and caring school

environment (Birch & Ladd, 1998; Blacher & Eisenhower, 2006). Within the classroom the teacher can create this essential environment. Teachers provide guidance and direction in academic achievements and supply children with social and emotional support throughout the novel challenges that a school can produce (Galen & Underwood, 1997; Hamre & Pianta, 2001). Since teachers are large influential factors within a child's early development, students often form strong emotional bonds with their teachers (Birch & Ladd, 1998; Blacher & Eisenhower, 2006). Through warm and supportive relationships a positive learning environment can be created (Crosnoe, Kirkpatrick Johnson, & Elder, Jr., 2004; Donlevy, 2001). Disciplinary methods engaged within the classroom form part of this learning environment and can also greatly influence the type of environment that is created (Derogene, 2007; Tremlow & Fonagy, 2005). The relationship between the student and the teacher along with the disciplinary methods utilised within the classroom can both be directed towards creating the warm and supportive environment that is essential in the redirection of externalising behaviour problems (Tremblay, Vitaro, Gagnon, Piche, & Royer, 1992).

The construct of externalising behaviour problems represents a group of behaviours that are identified as reflecting the child's negative reactions towards their external environment and are manifested as outward behaviours (Buhs, Ladd, & Herald, 2005; Hinshaw et al., 1993; Liu, 2004). These behaviours include conduct problems, oppositional behaviours, aggression and attention deficit and hyperactivity (Hinshaw et al., 1993; Liu, 2004). Externalising behaviours are commonly identified as negative, hostile and defiant behaviour, defined as oppositional behaviours and physical and verbal behaviours that harm or threaten to harm others, various forms of aggression including

those that exclude others from social groups (Bjorkquist, Lagerspetz, & Kaukianen, 1992; Crick, Casas, & Mosher, 1997). Externalising behaviours are more commonly displayed amongst boys although aggression in the form of the exclusion of others, termed relational aggression, is more commonly displayed amongst girls (Bjorkquist et al., 1992; Buhs et al., 2005; Crick et al., 1997).

The origins of externalising behaviours have attracted numerous theories including biological and genetic factors in combination with environmental influences (Haberstick et al., 2005). It has been suggested that biological and heritable differences in children's neuropsychological health in combination with the absence of appropriate nurturance, discipline and training in the parenting and family environments of children could leave them vulnerable to developing externalising behaviour problems (Gottfredson & Hirschi, 1990; Moffitt, 1993). Miller-Lewis and colleagues identified three major domains of risk factors for children developing externalising behaviours (Miller-Lewis et al., 2006). The first factor refers to the characteristics of the child, including genetic risk and temperament, the second factor emphasises parenting techniques and the third factor involves family adversities (Miller-Lewis et al., 2006).

A child with a difficult temperament combined with an inappropriate environment can be left with fewer opportunities for both cognitive and social development (Gottfredson & Hirschi, 1990; Moffitt, 1993). Externalising behaviour problems are often accompanied by developmental deficits, learning difficulties and inappropriate social adjustments (Haberstick et al., 2005). These behaviour problems can impede a child's receptive listening and reading, problem solving, expressive speech and writing and memory (Moffitt, 1993). Due to the reciprocal nature of the development of externalising

behaviours and the interactions formed between the child and their environment, the opportunities for the child to develop appropriately academically and socially are diminished. As the process continues the opportunities for correcting the child's developmental difficulties also diminishes (Snyder et al., 2005). The earlier the intervention, the more likely a successful outcome for the child when entering or continuing into the educational system and indeed for occupational and interpersonal experiences outside of the schooling system (Miller-Lewis et al., 2005).

Externalising behaviours that persist into adolescence and adulthood have the tendency to undermine appropriate group relations and the ability to achieve collective ends (Gottfredson & Hirschi, 1990). This progression further reduces the opportunities for these individuals to correct their behaviours and often leads to the destruction of their interpersonal relationships and also affects their physical and emotional health as well as their economic well being (Haberstick et al., 2005). Persistent disorders developed through externalising behaviours are often linked very closely with criminal and delinquent behaviours. Offenders who are identified as having displayed externalising behaviours in early childhood have been connected with the highest rates of re-offending and have the lowest success rates in rehabilitation interventions (Gottfredson & Hirschi, 1990; Moffitt, 1993).

The unsuccessful attempts in later life to counteract the problems initiated by externalising behaviour problems from early childhood appear to be quite simple to correct in the early years when compared to the difficulties experienced with later attempts (Miller-Lewis et al., 2006). The most positively influential strategies in early childhood are those that focus on the family environment. It has been noted that the

family environment has a large influence in the development of externalising behaviours therefore concentration on this area within a child's development appears to be the most effective direction for interventions (Haberstick et al., 2005). Issues within the family environment that need to be addressed are the attachment between parent and child, parental supervision, the recognition of deviant behaviours and the punishment of deviant acts (Gottfredson & Hirschi, 1990; Miller-Lewis et al., 2006). With the assistance of willing parents and a supportive and cooperative family environment externalising behaviours can be effectively corrected before more severe behavioural problems are established.

The deceivingly simple interventions necessary for redirection of the child's behavioural issues are not often as obtainable as implied. Infants with a genetic or biological predisposition for developing externalising behaviours are disproportionately found within environments that are not conducive to the progression of healthy neural development (Moffitt, 1993). Genetic or biological predispositions for externalising behaviours have been identified as being highly heritable (Huesmann, Eron, Lefkowitz, & Walder, 1984). Therefore, the familial environment in which the child is usually exposed to is generally associated with disadvantage and deviance due to the behaviours displayed by the child's parents (Moffitt, 1993; Snyder et al., 2005). Although this hindrance to a vulnerable child's development appears to be a difficult factor to overcome, various other adult role models within a child's life can have a large impact on a child and can prove to be an essential resource in the correction of maladaptive development (Hamre & Pianta, 2001; La Paro, Rimm-Kaufman, & Pianta, 2006).

Teachers, as the adult role models within the classroom, can greatly assist students with externalising behaviour problems in overcoming the difficulties that they encounter when entering the schooling system, although, this may still be a complicated journey. (Rimm-Kaufman, La Paro, Downer, & Pianta, 1999). Common challenges that face any child within the transition into the education system can be exaggerated for children with externalising behaviour problems (Hinshaw et al., 1993; Liu, 2004). The characteristics of the child, including their aggressive tendencies towards other children and their inappropriate responses to authority figures, will interact with their school environment subsequently creating a more difficult situation for the child (Rimm-Kaufman, La Paro, Downer, & Pianta, 1999). The externalising behaviours may make it more difficult for the child to engage in effective social interactions with their peers and their teachers and may also interfere with their ability to concentrate on their work and listen to the teacher's instructions (Gottfredson & Hirschi, 1990; Moffitt, 1993).

The reciprocal relationships formed between the child and their teachers and peers will also influence the way in which others interact with the child and how teachers approach the inappropriate behaviours the child displays (Haberstick et al., 2005; Snyder et al., 2005). With these added difficulties, a child with externalising behaviour problems may inadvertently create an environment within their school that decreases their opportunities for developmental improvements (Gottfredson & Hirschi, 1990; Moffitt, 1993). The relationship between teachers and students with problem behaviours are often not as nurturing and supportive as what is needed for these children (Galen & Underwood, 1997; Hamre & Pianta, 2001). Oppositional and aggressive behaviours may hinder the teacher's efforts to create a sufficient bond with the child and disciplinary

measures applied to attend to the child's behaviours may not be as effective for the child without an adequate connection with their teacher (Tremblay et al., 1992).

The emotional bond that is created between the student and the teacher through the role of the teacher within the classroom and the large amount of time that the teacher spends with each child can be either positive or negative (Birch & Ladd, 1998; Marshall & Weinstein, 1986). This emotional bond is often referred to as the student-teacher relationship. As with the interactions between a child's behaviour and their environment, the student-teacher relationship is a reciprocal process (Birch & Ladd, 1998; Howes et al., 1994). Characteristics of both the student and the teacher, in addition to their environment, interact to influence the type of relationship that is developed.

Behaviours and interpersonal interaction styles identified in children as they enter kindergarten have displayed significant predictive abilities towards the types of relationships that are formed between these children and their teachers (Birch & Ladd, 1998; Crosnoe et al., 2004). Children who do not display externalising behaviours and whom are relatively easier for teachers to connect to are more likely to form closer and more supportive relationships with their teachers (Birch & Ladd, 1998; Howes et al., 1994). Close and supportive student-teacher relationships have been associated with positive child outcomes including positive attitudes towards school, increases participation in classroom activities and academic competence. In contrast to this, children with externalising behaviour problems are more likely to develop student-teacher relationships that are characterised with conflict (Birch & Ladd, 1998; Marshall & Weinstein, 1986). These relationships are associated with negative child outcomes including unfavourable school attitudes, school avoidance, disengagement in the

classroom and poor academic performance (Birch & Ladd, 1998; Marshall & Weinstein, 1986).

The student-teacher relationships that are formed may be reflections of the children's behaviours and in particular the externalising behaviour problems of some children, but conflictual relationships can be redirected to be beneficial for the child (Craig, 1999; Crosnoe et al., 2004; Marshall & Weinstein, 1986). Student-teacher relationships are important aspects of the school environment and essential to appropriate development. The quality of the student-teacher relationship has been associated with the child's ability to engage in the instructional resources presented within the classroom (Hamre & Pianta, 2001; Twemlow & Fonagy, 2005). The experience of a sense of belonging and supportive relationships with teachers and peers motivates a child to actively and appropriately participate in classroom activities (Birch & Ladd, 1998; Hughes & Kwok, 2007). Without this positive environment the children do not have appropriate access to the resources they need to enhance appropriate academic and psychological development (Marshall & Weinstein, 1986; Hamre & Pianta, 2001).

The quality of the classroom environment and the disciplinary approaches that teachers apply often predict any behavioural changes in their students (Rimm-Kaufman, La Paro, Downer, & Pianta, 2005). Students that are ineffectively managed in the early school years tend to sustain their externalising behaviour problems throughout school and into adolescence and adulthood (Farmer, Goforth, Hives, & Aaron, 2006). Students who are managed with disciplinary approaches that indirectly reinforce their externalising behaviours have decreased opportunities to develop appropriately and to overcome their problem behaviours (Farmer et al., 2006; Rimm-Kaufman et al., 2005). With negative

approaches a child is less likely to learn any alternative approaches to challenging situations. If only negative approaches are shown the child will reflect these interactions in their own behaviours (Bickley-Green, 2007; Rimm-Kaufman et al., 2005).

Positive approaches to discipline that assist in teaching and reinforcing appropriate behaviours are more effective in correcting externalising problems (Farmer et al., 1006). However, children displaying externalising behaviours often do not receive these positive approaches as their behaviours influence more negative reactions from their teachers (Farmer et al., 2006; Rimm-Kaufman et al., 2005). These negative reactions are more likely to reinforce the externalising behaviours especially as these children often experience more complex family environments with negativity in their home lives (Buhs, Ladd, & Herald, 2005; Dodge & Coie, 1987). Therefore, these children will not benefit from constant negative interactions. They are less likely to experience positive modelling at home extenuating the necessity for a positive environment within the classroom (Buhs et al., 2005; Crick et al., 1997).

This study focused on establishing whether the student-teacher relationship and the teacher's disciplinary techniques predict student's externalising behaviour scores. Positive student-teacher relationships and intrinsic disciplinary techniques, praise and induction, were hypothesised to be negatively correlated with scores on the externalising behaviours subscale of the social behaviour questionnaire (Pianta, 1992; Temblay, Vitaro, Gagnon, Piche, & Royer, 1992). In reflection of this, it was also hypothesised that negative student-teacher relationships along with extrinsic disciplinary techniques, punishment and reward, would positively correlate with scores on the externalising

behaviours subscale of the social behaviour questionnaire (Pianta, 1992; Temblay et al., 1992).

#### Method

# Research Design

This study was conducted as a part of a larger study directed by Dr Kevin Runions, the Childhood Aggression Prevention (CAP) Project. Data was collected for use within the larger CAP Project although data from both the parent and teacher assessments were utilised within this study to examine hypotheses about the relationship between aspects of the teacher-student relationship (i.e., warmth and negative interactions), teacher disciplinary methods and the externalising behaviours of their students. A cross-sectional correlational research design was used.

### **Participants**

128 students' externalising behaviours were assessed by their teachers with 98 of these students assessed by their parents as well. The teachers and parents were of students in kindergarten, pre-primary and year 1 classes. A maximum of twelve students were selected for teacher assessments, through the return of consent forms, from each classroom with approximately two classrooms per grade from five government schools. No limit was applied for the number of parent assessments, all consenting parents were included.

### Materials

The information and consent forms for this study contained information on the test-retest psychometric analysis of key instrumentation for the CAP Project, of which this study was a part (see appendices A, B & C).

The teacher assessment included the social behaviour questionnaire, a studentteacher relationship questionnaire and a teacher's disciplinary techniques questionnaire (Questions 6, 7, & 8, respectively, of appendix D). Please note that the instruments contain questions that are not required for the current study, but which are included as part of the test-retest of instruments for the CAP Project). From the social behaviour questionnaire this study focused on the externalising behaviours subscale, which includes conduct problems, oppositional behaviours, physical aggression, proactive and reactive aggression, social aggression, attention deficit and hyperactivity. The student-teacher relationship scale included two subscales: warmth/closeness and conflict/negative interaction, both of which were examined within this study. The teacher's disciplinary techniques questionnaire included four subscales; two of which are related to intrinsic motivation in the context of appropriate and inappropriate child behaviours, (praise and induction, respectively), and two of which are related to extrinsic motivation, (reward and punishment). The student teacher relationship questionnaire and the teacher's disciplinary techniques questionnaire were not used for the parents' assessment. From that assessment, the project only made use of the social behaviour questionnaire, and specifically the externalising behaviours subscale (Question 7 of appendix E).

The social behaviour questionnaire was derived from Tremblay, Vitaro, Gagnon, Piche and Royer (1992), which was an adaptation of instruments developed by Behar and Stringfield (1974) and Weir and Duveen (1981), based on their modifications of Rutter's (1967) children's behaviour questionnaire for completion by teachers.

Items within the social behaviour questionnaire on proactive and reactive aggression are also included from Dodge and Coie (1987). Also, some items on social

aggression retained a basis from another preschool social behaviour scale (Crick, Casas, & Mosher, 1997) and the direct and indirect aggression scales (Björkquist, Lagerspetz, & Kaukianen, 1992).

This study focused on the externalising behaviours scale within the social behaviour questionnaire. This scale consists of subscales assessing conduct problems, oppositional behaviours, physical aggression, proactive and reactive aggression, social aggression and behaviours typical of problems associated with hyperactive and attention deficit. From baseline assessments for 2006 from the CAP Project the social behaviour questionnaire had good internal consistency ( $\alpha = .91$ ).

The student-teacher relationship scale used in this study was from Pianta (1992). The scale addresses the relationship between the student and the teacher. It includes two subscales, both of which show good internal consistency: closeness/warmth scale ( $\alpha$ = .86) and conflict/negative interaction scale ( $\alpha$  = .90), (Pianta, 1992; see appendix D, question 7).

The teacher's disciplinary techniques questionnaire addresses the disciplinary techniques the teachers apply to the particular students. The teachers were asked to answer questions for the individual child indicated to assess the varying disciplinary techniques at an individual level. This questionnaire involved four subscales. Two of these subscales relate to intrinsic motivations towards good and bad behaviour, praise and induction respectively, and the other two subscales relate to extrinsic motivations towards good and bad behaviour, reward and punishment respectively. Psychometric data on these items were not available, as the questions were being tested through the test-retest of the CAP Project.

#### **Procedure**

Principals from the five schools were sent out information and consent forms prior to receiving a phone call to verify whether or not they agreed to involve their school in the study. Once consent had been obtained from the principals of five schools, information and consent forms were distributed to the teachers of the kindergarten, preprimary and year one classes of those schools. Once consent was obtained from the teachers, the teachers were sent information and consent forms to distribute to the parents of students in their classes. Parents returned these forms to the teachers. The teacher and parent assessments for consenting children were distributed to the teachers who forwarded the parent assessments on to the consenting parents.

All assessments were fitted with a sticker system where the identifiable student information (i.e., the student's name) were removed by removing the stickers before returning the assessments. This left only the identification number of the students on the questionnaires before they were collected. This was done for confidentiality purposes so that the student would not be directly identifiable.

The assessments were given to the parents and teachers with a two-week time limit to ensure that all assessments were collected with appropriate time for the analysis to be completed within the given timeframe. Teachers were asked to collect the assessments from the parents (returned in sealed envelope to ensure confidentiality) so that the completed teacher and parent assessments could be collected directly from the schools. The teachers were compensated for the time spent completing the assessments through teacher relief commensurate to their labour, as part of the budget of the larger project (CAP Project). The larger project also funded a raffle for both the teacher and the

parent assessments to assist in recruiting the required number of participants for the proposed study.

Analyses

Reliability analyses were conducted on the scales used within the assessments before further analyses were completed. Reliability analyses included all assessments however the t-test, correlation and multiple regression analyses excluded assessments that were incomplete (Tabachnick & Fidell, 2007). In the externalising behaviours subscale there were 29 questions in the teacher assessment and 26 questions in the parent assessment. From this, assessments with less than ten questions answered were excluded from the analyses. The student-teacher relationships subscales included eight questions in the closeness/warmth subscale and seven in the conflict/negative interaction subscale. From these, assessments with less than five questions answered were excluded from the analyses. The teacher disciplinary techniques subscales included three questions in each subscale from which assessments with less than two questions answered were excluded from the analyses.

An independent samples t-test was conducted to analyse the presence of a gender effect within the data using scores from both the parent and teacher assessments and from all questionnaires.

Two measures of externalising behaviours were obtained from the social behaviour questionnaire, one from the teacher assessment and the other from the parent assessment for each child. These were analysed for simple correlation using two-tailed significance. Correlational effects were also analysed between the predictor variables from the teacher assessments using one-tailed significance due to expected directions of

correlations between the variables. However, one-tailed significance was additionally used for correlational analyses of conflict/negative interaction and extrinsic teacher disciplinary techniques due to an unexpected direction of correlation between these variables.

Hierarchical multiple regression analysis was used to analyse the data for correlational relationships between the variables using SPSS version 14.0. Hierarchical multiple regression was chosen to provide a clearer view of the effects of the predictor variables. The closeness/warmth subscales of the student-teacher relationship scale and the intrinsic subscales, praise and induction, of the teacher's disciplinary techniques questionnaire formed the predictor variables in one analysis and the opposing subscales; conflict/negative interaction and extrinsic techniques, reward and punishment, respectively, formed the predictor variables of the second analysis. The criterion variables for both analyses were the students' scores on the externalising behaviours subscale of the social behaviour questionnaire with gender as a covariate.

### Findings and Interpretations

Reliability analyses for the externalising behaviours subscale from the social behaviour questionnaire from both the parent and the teacher assessments displayed good internal consistency with alpha levels of .918 and .958 respectively. The student-teacher relationship scale from the teacher assessments also displayed good internal consistency for the closeness/ warmth subscale ( $\alpha$  = .819) and the conflict/negative interaction subscale ( $\alpha$  = .912). And finally the teacher disciplinary techniques scale from the teacher

assessment also displayed good internal consistency (Punishment  $\alpha$  = .957, Induction  $\alpha$  = .945, Praise  $\alpha$  = .919 and Reward  $\alpha$  = .832).

The externalising behaviours scales from the parent and teacher assessments displayed significant skewness and kurtosis in the distributions with skewness values of .964 from the parent assessments and 1.520 from the teacher assessments and kurtosis values of 2.159 and 1.838 for parent and teacher assessments respectively. Due to the skew and kurtosis values the externalising behaviours scores were transformed using Log10 transformation (Tabachnick & Fidell, 2007). After transformation the teacher assessment scores for externalising behaviours was still largely skewed at a value of 1.006 but the parent assessment scores for externalising behaviours produced a much lower value for skewness of .227 and values for kurtosis had decreased to .127 and .298 for parent and teacher assessments respectively.

Simple correlations analyses for the externalising behaviours subscale from the parent assessments in comparison to the teacher assessments displayed a statistically significant correlation r = .446, p<0.01.

Correlational analyses of student-teacher relationships with teacher disciplinary techniques using one-tailed significance displayed statistically significant correlations between closeness/warmth and induction r (127) = .150, p<.05, closeness/warmth and praise r (127) = .497, p<.01, praise and induction r (127) = .299, p<.01 and conflict/negative interaction and punishment r (127) = -.174, p<.05. However, the correlations between the conflict/negative interactions subscale of the student-teacher relationships scale and the extrinsic teacher disciplinary techniques displayed unexpected negative correlations. Therefore, two-tailed significance was used which resulted in no

significant correlations between the conflict/negative interactions subscale of the studentteacher relationships scale and the extrinsic teacher disciplinary techniques.

The independent samples t-test was conducted to analyse if there was a gender effect within the data. A statistically significant gender effect was displayed although only within the externalising behaviours scores from the teacher assessments t (126) = 1.989, p<.05. Therefore gender was included in all multiple regression analyses for consistency purposes (Tabachnick & Fidell, 2007).

Hierarchical multiple regression analyses using the externalising behaviours score from parent assessments indicated that closeness and warmth in student-teacher relationships was a significant predictor of student's externalising behaviours (F (2,91) = 4.796, p<.05) with the closeness/warmth subscale negatively correlating with the student's externalising behaviours score (see Table 1). Induction and Praise were not significant predictors with no significant additional variance accounted for by model three.

Table 1
Hierarchical Multiple Regression Analyses of Closeness/Warmth Student-teacher
Relationships and Intrinsic Disciplinary Techniques on Student's Externalising
Behaviours as Perceived by Parents.

		В	Std. Error	t	Sig.
Model 1	Gender	028	.018	-1.520	.132
Model 2	Gender	027	.018	-1.503	.136
	Closeness	042	.016	-2.670	.009
Model 3	Gender	029	.018	-1.602	.113
	Closeness	030	.019	-1.640	.105
	Induction	.000	.007	.058	.954
	Praise	018	.014	-1.242	.218

*Note.*  $R^2 = .024$  for Model 1;  $\Delta R^2 = .071$  for Model 2;  $\Delta R^2 = .016$  for Model 3.

Conflictual student-teacher relationships was also indicated as a significant predictor of students' externalising behaviours score as perceived by parents (F (2, 90) =

6.915, p<.05) with the conflict/negative interaction subscale positively correlating with the externalising behaviours score (see Table 2). Punishment and reward were not significant predictors with no significant additional variance accounted for by model three.

Table 2 Hierarchical Multiple Regression Analyses of Conflict/Negative Interaction Studentteacher Relationships and Extrinsic Disciplinary Techniques on Student's Externalising Behaviours as Perceived by Parents.

		В	Std. Error	t	Sig.
Model 1	Gender	027	.019	-1.445	.152
Model 2	Gender	023	.018	-1.310	.193
	Conflict	.047	.014	3.391	.001
Model 3	Gender	028	.018	-1.520	.132
	Conflict	.043	.014	2.992	.004
	Punishment	005	.005	-1.011	.315
	Reward	005	.009	509	.612

*Note.*  $R^2 = .022$  for Model 1;  $\Delta R^2 = .111$  for Model 2;  $\Delta R^2 = .011$  for Model 3.

Hierarchical multiple regression analyses using data from the externalising behaviours questionnaire from the teacher assessments indicated that the students' gender was a significant covariate and that student-teacher relationships were significant predictors of students' externalising behaviours score with F (2,124) = 11.216, p<.01 for the closeness/warmth subscale and gender and F (2,123) = 139.573, p<.01 for the conflict/negative interaction subscale with no significant additional variance accounted for with the inclusion of teacher disciplinary techniques for both analyses. Gender was not a significant covariate when the conflict/negative interaction subscale of student-teacher relationships was included in the model (see Tables 3 and 4).

Table 3
Hierarchical Multiple Regression Analyses of Closeness/Warmth Student-teacher
Relationships and Intrinsic Disciplinary Techniques on Student's Externalising
Behaviours as Perceived by Teachers.

		В	Std. Error	t	Sig.
Model 1	Gender	037	.018	-2.041	.043
Model 2	Gender	035	.017	-2.056	.042
	Closeness	065	.015	-4.208	.000
Model 3	Gender	042	.017	-2.455	.015
	Closeness	049	.018	-2.777	.006
	Induction	012	.007	-1.758	.081
	Praise	018	.014	-1.320	.189

*Note.*  $R^2 = .032$  for Model 1;  $\Delta R^2 = .121$  for Model 2;  $\Delta R^2 = .042$  for Model 3.

Table 4
Hierarchical Multiple Regression Analyses of Conflict/Negative Interaction Studentteacher Relationships and Extrinsic Disciplinary Techniques on Student's Externalising
Behaviours as Perceived by Teachers.

		В	Std. Error	t	Sig.
Model 1	Gender	037	.018	-1.980	.050
Model 2	Gender	013	.011	-1.269	.207
	Conflict	.117	.007	16.335	.000
Model 3	Gender	017	.011	-1.575	.118
	Conflict	.114	.007	15.481	.000
	Punishment	003	.003	978	.330
	Reward	008	.005	-1.557	.122

*Note.*  $R^2 = .031$  for Model 1;  $\Delta R^2 = .663$  for Model 2;  $\Delta R^2 = .008$  for Model 3.

Teacher disciplinary techniques were not significant predictors in combination with student-teacher relationships. However, praise was significant predictor with gender as a covariate F (3,123) = 6.927, p<.01 as well as gender, punishment and reward F (3,122) = 5.066, p<.01 when entered before student-teacher relationships within the hierarchical multiple regression (see Table 5 and 6). Although, the subsequent inclusion of closeness/warmth to intrinsic disciplinary techniques accounted for an additional 5.1% of variance (p<.01) and the inclusion of conflict/negative interaction to extrinsic disciplinary techniques accounted for an additional 59.1% of variance (p<.001).

Table 5
Hierarchical Multiple Regression Analyses of Intrinsic Disciplinary Techniques on Student's Externalising Behaviours as Perceived by Teachers.

		В	Std. Error	t	Sig.
Model 1	Gender	037	.018	-2.041	.043
Model 2	Gender	046	.018	-2.607	.010
The state of the s	Induction	013	.007	-1.739	.084
A STATE OF THE STA	Praise	037	.012	-2.956	.004
Model 3	Gender	042	.017	-2.455	.015
	Closeness	049	.018	-2.777	.006
	Induction	012	.007	-1.758	.081
	Praise	018	.014	-1.320	.189

*Note.*  $R^2 = .032$  for Model 1;  $\Delta R^2 = .145$  for Model 2;  $\Delta R^2 = .051$  for Model 3.

Table 6
Hierarchical Multiple Regression Analyses of Extrinsic Disciplinary Techniques on Student's Externalising Behaviours as Perceived by Teachers.

		В	Std. Error	t	Sig.
Model 1	Gender	037	.018	-1.980	.050
Model 2	Gender	046	.018	-2.565	.012
	Punishment	012	.005	-2.514	.013
	Reward	021	.009	-2.386	.019
Model 3	Gender	017	.011	-1.575	.118
	Conflict	.114	.007	15.481	.000
	Punishment	003	.003	978	.330
	Reward	008	.005	-1.557	.122

*Note.*  $R^2 = .031$  for Model 1;  $\Delta R^2 = .080$  for Model 2;  $\Delta R^2 = .591$  for Model 3.

Due to the greater predictor capabilities displayed by student-teacher relationships in comparison to the teacher disciplinary techniques, the subscales within the student-teacher relationships scale were analysed together using hierarchical multiple regression analysis. Using data from the externalising behaviours questionnaire from the parent assessments, closeness/warmth was indicated as a significant predictor F(2, 91) = 4.796, p=.01. However, in combination with conflict/negative interaction, only the conflict/negative interaction subscale was indicated as a significant predictor F(3, 90) = 5.486, p<.01 (see Table 7).

Table 7
Hierarchical Multiple Regression Analyses of Student-teacher Relationships using Parent Assessments.

		В	Std. Error	t	Sig.
Model 1	Gender	028	.018	-1.520	.132
Model 2	Gender	027	.018	-1.503	.136
	Closeness	042	.016	-2.670	.009
Model 3	Gender	024	.017	-1.381	.171
	Closeness	024	.017	-1.389	.168
	Conflict	.038	.015	2.511	.014

*Note.*  $R^2 = .024$  for Model 1;  $\Delta R^2 = .071$  for Model 2;  $\Delta R^2 = .059$  for Model 3.

Using data from the externalising behaviours questionnaire from the teacher assessments, the relationships seen with the use of the parent data was replicated with F (2,124) = 11.216, p<.01 for the closeness/warmth subscale and F (3,123) = 95.526, p<.01 when combined with the conflict/negative interaction scale. However, gender was also indicated as a significant covariate when considered with the closeness/warmth subscale at the exclusion of the conflict/negative interaction subscale (see Table 8).

Table 8
Hierarchical Multiple Regression Analyses of Student-teacher Relationships using Teacher Assessments.

		В	Std. Error	t	Sig.
Model 1	Gender	037	.018	-2.041	.043
Model 2	Gender	035	.017	-2.056	.042
	Closeness	065	.015	-4.208	.000
Model 3	Gender	014	.010	-1.330	.186
	Closeness	014	.010	-1.360	.176
	Conflict	.113	.008	14.961	.000

*Note.*  $R^2 = .032$  for Model 1;  $\Delta R^2 = .121$  for Model 2;  $\Delta R^2 = .547$  for Model 3.

#### Discussion

Results indicated that the closeness/warmth subscale of the student-teacher relationship scale and the intrinsic teacher disciplinary techniques negatively correlated with students' externalising behaviours and that the conflict/negative interaction subscale

of the student-teacher relationships scale positively correlated with students' externalising behaviours. However, the extrinsic teacher disciplinary techniques unexpectedly negatively correlated with the students' externalising behaviours. This is partial supportive of the hypotheses for this research with the exception of the extrinsic teacher disciplinary techniques, which could benefit from further research.

Student-teacher relationships were indicated as a significant predictor of student's externalising behaviours score on the social behaviour questionnaire. Gender was also indicated as a significant covariate of students' externalising behaviours as perceived by teachers. Externalising behaviours have displayed gender differences with boys more commonly displaying externalising behaviours in comparison to girls (Bjorkquist et al., 1992; Buhs et al., 2005; Crick et al., 1997). This gender difference may not have been as obvious to parents as it to teachers due to the large number of students within the classroom, which may be why the gender difference was only found within the data from the teacher assessments. However, when combined with conflict/negative interaction gender was not considered a significant covariate. Conflict/negative interaction student-teacher relationships were indicated as such a strong predictor that when combined with closeness/warmth student-teacher relationships and with extrinsic teacher disciplinary techniques these factors were not indicated as predictors.

Teacher disciplinary techniques were not indicated as significant predictors of students' externalising behaviours when combined with student-teacher relationships.

However, the extrinsic teacher disciplinary techniques, punishment and reward, as well as praise from the intrinsic disciplinary techniques when considered without student-teacher relationships were indicated as significant predictors. This may be due to correlational

effects between the student-teacher relationships and the teacher disciplinary techniques. The results from the correlational analyses of the student-teacher relationships scale and the teacher disciplinary techniques indicated that closeness/warmth in student-teacher relationships are correlated with intrinsic disciplinary techniques of induction and praise. However, the results did not indicate a correlation between conflict/negative interaction student-teacher relationships and extrinsic teacher disciplinary techniques. Further research on the relationship between student-teacher relationships and teacher disciplinary techniques is needed for subsequent conclusions to be made, as this was not an objective of the current study.

The predictor qualities of the student-teacher relationship on students externalising behaviours have large applicable value within intervention strategies for addressing externalising behaviour problems within the school setting. Improvement in the quality of the relationship between teachers and students can greatly assist in redirecting the externalising behaviour problems that students display within the classroom. Interventions focusing on improving the relationship between the teacher and the disruptive students may be an essential factor for successful redirection of externalising behaviours.

The student-teacher relationship has a large impact upon the learning environment within the classroom, which has been the focal point for a number of interventions that have already been trailed within schools. Proactive and prevention strategies concentrating on supporting students and rearranging their environments so as to avoid difficult situations where the children are more likely to misbehave have already shown great success (Bohanon, Fenning, Carney, & Minnis-Kim, 2006; Hawken, MacLeod, &

Rawlings, 2007). Interventions including positive behaviour supports (Bohanon et al., 2006; Hendley, 2007), competence enhancement behaviour management (Farmer et al., 2006) and behaviour education programs (Hawken et al., 2007) have lead to improvements in academic achievement and an increase in appropriate behaviour when applied to classrooms where there are children who have externalising behaviour problems (Farmer et al., 2006; Hendley, 2007).

The positive behaviour supports from Bohanon and colleagues (2006) and Hendley (2007) focus on assessing the classroom environment and rearranging both the physical and emotional aspects of the classroom to attempt to reduce the students externalising behaviours. These interventions are individualised to the students and their classroom so that the factors influencing those particular children's behaviours are assessed and managed in the most effective and appropriate manner for the individual student (Bohanon et al., 2006; Hendley, 2007).

Competence enhancement behaviour management and behaviour education programs highlight the importance of preventing externalising behaviour problems so that punishments are not necessary (Farmer et al., 2006; Hawken et al., 2007). However, these interventions do not ignore the importance of appropriate punishment when the preventions strategies are ineffective (Farmer et al., 2006; Hawken et al., 2007). In particular, the behaviour education program encompasses a school-wide behaviour support system with primary, secondary and tertiary level to the intervention focusing on prevention strategies then appropriate disciplinary measures (Hawken et al., 2007). Therefore, interventions including both student-teacher relationships and teacher

disciplinary techniques may prove to be the most effective interventions in the successful redirection of externalising behaviour problems.

The relationships between student-teacher relationships and teacher disciplinary techniques does need further research as results from this study did not indicate teacher disciplinary techniques as a significant predictor of students' externalising behaviours when combined with student-teacher relationships. Also correlational analyses of conflict/negative interaction student-teacher relationships and extrinsic teacher disciplinary techniques produced no significant correlation between these factors, which were also unexpected negative correlations. Further research into the relationships between the student-teacher relationships and teacher disciplinary techniques and how they interact with each other could provide some useful information for further enhancing interventions to redirect externalising behaviours in early school age children. This study only examined the relationships between student-teacher relationships, teacher disciplinary techniques and students' externalising behaviours from a predictor stance with teachers' influences on the students providing the main focal point. Reversals of this relationship examining the influences of the students upon their teachers may also provide some valuable insight into this relationship and could provide a greater understanding for more successful interventions.

The results from this study do provide support for the applicable value of student-teacher relationships and teacher disciplinary techniques in interventions focusing on externalising behaviour problems. However, due to the design of the study only a correlational effect can be concluded on. Due to a limited timeframe and budget only a cross-sectional study based on the perceptions of adults who know the students could be

conducted. An observational and/or longitudinal study design would be desirable to extensively research the relationships between student-teacher relationships, teacher disciplinary techniques and students' externalising behaviours. The teacher disciplinary techniques questionnaire was also only in the piloting stages within this study and could also benefit from further research endeavours.

#### Conclusion

In conclusion, student-teacher relationships are indicated as significant predictors of student's externalising behaviours with closeness/warmth student-teacher relationships and intrinsic teacher disciplinary techniques negatively correlating with students' externalising behaviours and conflict/negative interaction student-teacher relationships positively correlating with students' externalising behaviours. However, extrinsic teacher disciplinary techniques negatively correlated with students' externalising behaviours.

Teacher disciplinary techniques are also indicated as significant predictors of students' externalising behaviours. Although this relationship is only seen when student-teacher relationships are not taken into consideration. This may be due to the correlations between student-teacher relationships and teacher disciplinary techniques. However, correlations were only observed between closeness/warmth student-teacher relationships and intrinsic disciplinary techniques. Further research on this topic is desirable.

## References

- Behar, L., & Stringfield, S. (1974). A behaviour rating scale for the preschool child.

  \*Developmental Psychology, 10, 601-610.
- Bickley-Green, C. (2007). Visual arts education: Teaching a peaceful response to bullying. *Art Education*, *60*, 6-13.
- Birch, S.H., & Ladd, G.W. (1998). Children's interpersonal behaviours and the teacherchild relationship. *Developmental Psychology*, *34*, 934-946.
- Blacher, J., & Eisenhower, A. (2006). Better than the teacher's pet: Building relationships with teachers in the early school years. *The Exceptional Parent*, *36*, 69-72.
- Björkquist, K., Lagerspetz, K.M., & Kaukianen, A. (1992). Do girls manipulate and boys fight? Developmental trends in regard to direct and indirect aggression.

  Aggressive Behaviour, 18, 117-127.
- Bohanon, H., Fenning, P., Carney, K.L., & Minnis-Kim, M.J. (2006). School wide application of positive behaviour support in an urban high school: A case study. *Journal of Positive Behaviour Interventions*, 8, 131-146.
- Buhs, E.S., Ladd, G.W., & Herald, S.L. (2005). Peer exclusion and victimisation:

  Processes that mediate the relation between peer group rejection and children's classroom engagement and achievement? *Journal of Educational Psychology*, 98, 1-13.
- Craig, R.P. (1996). Student-teacher relationship: A Buddhist perspective. *The Clearing House*, 69, 285-287.
- Crick, N.R., Casas, J.F., & Mosher, M. (1997). Relational and overt aggression in preschool. *Developmental Psychology*, 33, 579-588.

- Crosnoe, R., Kirkpatrick Johnson, M., & Elder Jr., G.H. (2004). Intergenerational bonding in school: The behavioural and contextual correlates of student-teacher relationships. *Sociology of Education*, 77, 60-82.
- Derogene, L.P. (2007). Scolding: Why it hurts more than it helps. *Childhood Education*, 83, 330-332.
- Dodge, K.A., & Coie, J.D. (1987). Social information processing factors in reactive and proactive aggression in children's peer groups. *Journal of Personality and Social Psychology*, 53, 1146-1158.
- Donlevy, J. (2001). High-stakes environments and effective student-teacher relationships:

  Some lessons from special education. *International Journal of Instructional Media*, 28, 1-8.
- Farmer, T.W., Goforth, J.B., Hives, J., & Aaron, A. (2006). Competence enhancement behaviour management. *Preventing School Failure*, 50, 39-45.
- Galen, B.R., & Underwood, M.K. (1997). A developmental investigation of social aggression among children. *Developmental Psychology*, 33, 589-600.
- Gottfredson, M., & Hirschi, T. (1990). A general theory of crime. Stanford, CA: Stanford, University Press.
- Haberstick, B.C., Schmitz, S., Young, S.E., & Hewitt, J.K. (2005). Contributions of genes and environments to stability and change in externalising and internalising problems during elementary and middle school. *Behaviour Genetics*, *35*, 381-396.
- Hamre, B.K., & Pianta, R.C. (2001). Early teacher-child relationships and the trajectory of children's school outcomes through eighth grade. *Child Development*, 72, 625-638.

- Hawken, L.S., MacLeod, K.S., & Rawlings, L. (2007). Effects of the behaviour education program (BEP) on office discipline referrals of elementary school students.

  \*\*Journal of Positive Behaviour Interventions, 9, 94-102.
- Hendley, S.L. (2007). Use positive behaviour support for inclusion in the general education classroom. *Intervention in School and Clinic*, 42, 225-229.
- Hinshaw, S.P., Lahey, B.B., & Hart, E.L. (1993). Issues of taxonomy and co morbidity in the development of conduct disorder. *Development of Psychopathology*, 5, 31-49.
- Huesmann, L.R., Eron, L.D., Lefkowitz, M.M., & Walder, L.O. (1984). Stability of aggression over time and generations. *Developmental Psychology*, 20, 1120-1134.
- Huges, J., & Kwok, O. (2007). Influence of student-teacher and parent-teacher relationships on lower achieving readers' engagement and achievement in the primary grades. *Journal of Educational Psychology*, 99, 39-51.
- La Paro, K.M., Rimm-Kaufman, S.E., & Pianta, R.C. (2006). Kindergarten to first grade: Classroom characteristics and the stability and change of children's classroom experiences. *Journal of Research in Childhood Education*, 21, 189-202.
- Liu, J. (2004). Childhood externalising behaviour: Theory and implications. *Journal of Child and Adolescent Psychiatric Nursing*, 17, 93-103.
- Marshall, H.H., & Weinstein, R.S. (1986). Classroom context of student-perceived differential teacher treatment. *Journal of Educational Psychology*, 78, 441-453.
- Miller-Lewis, L.R., Baghurst, P.A., Sawyer, M.G., Prior, M.R., Clark, J.J., Arney, F.M.,
  & Cabone, J.A. (2006). Early childhood externalising behaviour problems: Child,
  parenting, and family-related predictors over time. *Journal of Abnormal Child Psychology*, 34, 891-906.

- Moffitt, T.E. (1993). Adolescence-limited and life-course persistent behaviour: A developmental taxonomy. *Psychological Review*, *100*, 674-701.
- Pianta, R.C., Cox, M.J., Taylor, L., & Early, D. (1999). Kindergarten teachers' practices related to the transition to school: Results of a national survey. *The Elementary School Journal*, 100, 71-86.
- Pianta, R.C. (1992). *The student-teacher relationship scale*. University of Virginia, Charlottesville.
- Rimm-Kaufman, S.E., La Paro, K.M., Downer, J.T., & Pianta, R.C. (2005). The contribution of classroom setting and quality of instruction to children's behaviour in kindergarten classrooms. *The Elementary School Journal*, 105, 377-394.
- Rutter, M. (1967). A children's behaviour questionnaire for completion by teachers: Preliminary findings. *Journal of Child Psychology and Psychiatry*, 8, 1-11.
- Schulting, A.B., Malone, P.S., & Dodge, K.A. (2005). The effect of school-based kindergarten transition policies and practices on child academic outcomes.

  \*Developmental Psychology, 41, 860-871.
- Snyder, J., Cramer, A., Afrank, J., & Patterson, G.R. (2005). The contributions of ineffective discipline and parental hostile attributions of child misbehaviour to the development of conduct problems at home and school. *Developmental Psychology*, 41, 30-41.
- Tabachnick, B.G. & Fidell, L.S. (2007). *Using Multivariate Statistics* (4<sup>th</sup> edn.). Boston: Pearson/Allyn & Bacon.

- Tremblay, R.E., Vitaro, F., Gagnon, C., Piche, C., & Royer, N. (1992). A prosocial scale for the preschool behaviour questionnaire: Concurrent and predictive correlates.

  International Journal of Behavioural Development, 15, 227-245.
- Twemlow, S.W., & Fonagy, P. (2005). The prevalence of teachers who bully students in school with differing levels of behavioural problems. *The American Journal of Psychiatry*, 162, 2387-2390.
- Weir, K., & Duveen, g. (1981). Further development and validation of the prosocial behaviour questionnaire for use by teachers. *Journal of Child Psychology and Psychiatry*, 22, 357-374.

Appendix A: Principal Information and consent form.

Note: This is taken from the HREC approved "06-48 HALL Child-centred Environments to Limit Early Aggression (CELEA) Intervention Trial, of which my

supervisor, Dr Runions, is Project Director.

<Principal's name>

**Principal** 

<School> May 2007



## Dear <Principal's name>,

Childhood Aggression Prevention

An invitation to participate in piloting of assessment of the Childhood Aggression Prevention (CAP) Project.

The Child Health Promotion Research Centre (CHPRC) at Edith Cowan University has been investigating children's bullying and aggression and its relationship to health and academic outcomes in Western Australian schools for the past six years. The CHPRC has recently received funding from Healthway to investigate the effectiveness of a Pre-Primary-based universal project on the prevention of aggression and the promotion of healthy emotional and social development in young children. The study aims to provide evidence based training and support for Pre-Primary teachers to implement best practices in limiting aggression and its disruptive impact in the classroom. This Childhood Aggression Prevention (CAP) project has recruited 24 schools, selected randomly, to serve as either control or intervention schools.

As this project is being evaluated to determine its effectiveness, all schools involved in the study will be involved in data collection. But it is necessary to pilot test the questions before they are included in the surveys that teachers and parents will complete for Kindergarten, Pre-Primary, and Year One children. I am writing to ask the help of your school by participating in a test/retest of survey questions to be used in the study with teachers and parents.

## Your school's involvement:

- 1. We would ask for the assistance of Kindergarten, Pre-Primary and Year One teachers in distributing an information letter and consent form to parents. Our ethics committee requires we seek **active consent** from parents for teachers and parents to do the assessments. The letter describes the CAP project and gives parents an opportunity to advise us if they *would like* their child to participate in the survey (see copy of parent consent letter attached).
- 2. For eight (12) children whose parents provide consent, we need the teachers to complete two assessments. Each assessment should take approximately 10-15 minutes. Assessments are focused on students' prosocial and antisocial (i.e., aggressive and disruptive) behaviours and their interpersonal skills, the teacher's relationship (closeness and conflict) with the student, and their use of different forms of behaviour management with the child. We are aiming to have the second assessment conducted two weeks following the first, and to have both completed before the end of Term 2, 2007.
- 3. For these eight students, we need to collect information from parents. The parent assessments ask about children's prosocial and antisocial behaviours, and about

parenting style. As with the others, we will require two assessments, with the second following roughly two weeks after the first.

4. We also require active consent from teachers for their involvement (see copy of teacher consent letter attached).

## Our compensation to your school

- Through the support the W. A. Department of Education and Training, we are able to provide financial compensation for the time required by teachers to complete these reports. This will consist of relief payment to compensate teachers for their time in completing the assessments. Each assessment takes approximately 12 minutes to complete, which we will round up to 15 minutes. Thus, eight assessments should take around two hours. We will provide two half-day teacher relief payments to cover the assessments (8 assessments x two times each (test and re-test)).
- As well, as a token of our appreciation of your efforts and any work that might ensue, we are offering your school a \$50 gift voucher from Wooldridge's.
  - Finally, we will provide a report to your school describing the data collected.

The data collected will be used by the CHPRC for our evaluation of the quality of our instrumentation and the results of this evaluation will be reported to Healthway. An ECU Psychology Honours student, Ms. Emma Spencer, will also be making use of the data obtained through this process for her Honours thesis. Your school will not be identified in either process.

We would be very grateful to you, your teachers, parents and students if you are able to help us with this crucial part of the research process.

We will contact you by phone next week to discuss the possibility of your school being involved.

If you have any questions or would like to discuss the project before that time, please do not hesitate to contact the Project Director, Dr. Kevin Runions at k.runions@ecu.edu.au.

Yours sincerely

Dr Kevin Runions

Professor Donna Cross

Project Director Child Health Promotion Research Centre

Executive Director Child Health Promotion Research

Centre

Edith Cowan University, Churchlands Campus

Pearson St. Churchlands WA 6018

Tel: 9273-8373 Fax: 9273-8799

Permission to conduct this study in Government schools has been obtained from the Department of Education and Training. This study has been approved by the Edith Cowan University Human Research Ethics Committee. If you have any concerns or complaints about the research project and wish to contact an independent person you may ring the Research Ethics Officer on 6304 2170.

Appendix B: Teacher Information and consent form.

Note: This is taken from the HREC approved "06-48 HALL Child-centred

Environments to Limit Early Aggression (CELEA) Intervention Trial, of which my

supervisor, Dr Runions, is Project Director.

May 2007

Dear Staff member

Childhood Aggression Prevention

An invitation to participate in the Childhood Aggression Prevention (CAP) Project.

The Child Health Promotion Research Centre (CHPRC) at Edith Cowan University seeks your participation in the Childhood Aggression Prevention (CAP) Project, an innovative research project focused on the prevention of aggression and the promotion of healthy emotional and social development in young children. Your school Principal believes this is an important project and has approved participation by your school in a test/retest of survey questions to be used in the CAP project with teachers and parents from study schools.

## **Your Participation**

We ask that you:

- Assist in distributing consent letters to parents and collecting completed consent forms;
- For children whose parents provide consent, complete two assessments on no more than 12 students in your class. (We will compensate you by paying teacher relief commensurate to your time spent in completing the assessments on the children); and
- Assist in distributing, tracking, and collecting two assessments (test/retest) from parents who have provided consent.

## What do you need to know before agreeing to take part in the study?

Your responses to questions in the assessments will be treated as <u>strictly confidential</u>. Your name will not appear on any documents and no one outside of the CAP research team will have access to your data. Data collected will be used to examine the quality of the questions that we are asking. Data will also be used by an ECU Psychology Honour's student, Emma Spencer, for her Honour's research project. All completed assessments and consent forms will be stored in a locked facility at Edith Cowan University accessible only to the project investigators. No schools, teachers, or students will be named in any publications resulting from this project.

## **Further Information**

If you would like clarification or further information, please contact the Project Director, Dr Kevin Runions on 9273 8373 or by email at <a href="mailto:k.runions@ecu.edu.au">k.runions@ecu.edu.au</a>.

Yours sincerely

Dr Kevin Runions

Professor Donna Cross

Project Director

Child Health Promotion Research Centre

Executive Director

Child Health Promotion Research

Centre

Edith Cowan University, Churchlands Campus Pearson St, Churchlands WA 6018

Permission to conduct this study in Government schools has been obtained from the Department of Education and Training. This study has been approved by the Edith Cowan University Human Research Ethics Committee. If you have any concerns or complaints about the research project and wish to contact an independent person you may ring the Research Ethics Officer on 6304 2170.



Consent signature: Date: \_\_\_/ \_\_/ 2007





## Staff consent and permission

have read this information and consent form and understand its contents. I have been given the opportunity to ask questions, and I am satisfied with response I have obtained. I understand that this project is approved by the research ethics committee of Edith Cowan University, by the Department of Education and Training, and by my principal.

I freely consent to participate in the Childhood Aggression Prevention Project.

Name: \_\_\_\_\_\_\_ School Name:

The nature of the study, and the expectations for my involvement, have been explained to me. I

A CAP Project team member will collect your signed consent form on 28<sup>th</sup> June when we collect the completed parent and teacher assessments. Thanks.

Appendix C: Parent/Guardian Information and consent form.

Note: This is taken from the HREC approved "06-48 HALL Child-centred Environments to Limit Early Aggression (CELEA) Intervention Trial, of which my supervisor, Dr Runions, is Project Director.

<DATE>

## Dear Parent/Guardian of <SCHOOL NAME> Primary Student



## Re: Consent to participate in important aggression prevention research Childhood Aggression Prevention

The Child Health Promotion Research Centre (CHPRC) at Edith Cowan University has been investigating aggression, bullying and their relationships to health and academic outcomes in Western Australian schools for the past six years. The CHPRC has recently received funding from Healthway to investigate the effectiveness of an intervention to limit aggression and the problems that go along with it in Pre-Primary classrooms. The **Childhood Aggression Prevention (CAP) Project** aims to provide evidence-based training and support for primary staff to support safer, more satisfying classrooms where students can learn more effectively.

<PRINCIPAL'S NAME> at your child's school has agreed to participate in the CAP Project by allowing teachers to complete surveys. We would also like you to complete two brief surveys about your child's behaviour. Each survey should take no more than 15 minutes of your time, and most parents find it interesting to answer questions about their children. By returning your consent, whether or not you chose to take part in the study, you will entered in a draw for a \$100 Coles/Myer gift voucher.

## What do you need to know before agreeing to take part in the study?

We hope you will be able to help us by filling out the survey about your child and by permitting your child's teachers to complete surveys about your child. But if you do not want to, you do not need to explain why to anyone. You are free to withdraw from the study at any time, with no questions asked, and all information provided to us up to that point will be destroyed. We want to ensure that you are happy being part of the process of learning about how schools can best support children's social and emotional development and improve the educational and social experiences of all the children.

Data collected will be used to examine the quality of the questions that we are asking. Data will also be used by an ECU Psychology Honour's student, Emma Spencer, for her Honour's research project. Your responses provided about your child will be treated as <u>strictly confidential</u>. Your name or your child's name will not appear on any documents. Teachers, schools, parents and other individuals will not see your responses. All surveys will be stored in a locked facility at Edith Cowan University accessible only to the project investigators. Schools or students will not be named in any publications resulting from this project.

## **Further Information**

If you would like any clarification or further information, please contact the Project Director, Dr Kevin Runions on 9273 8373 or by email at <a href="mailto:k.runions@ecu.edu.au">k.runions@ecu.edu.au</a>.

## **Next Step**

- If you AGREE to participate in the CAP project please complete the attached consent form and return it in to your child's teacher before <a href="RETURN DATE">RETURN DATE</a>.
   Teachers will provide you with a copy of the survey at a later date, which will have full instructions for your next steps at that point
- If you DO NOT AGREE to participate in the CAP Project please complete the consent form attached and return it to your child's teacher by <a href="mailto:</a> <a href="mailto:RETURN DATE">RETURN DATE</a>.

If you return your consent form by <RETURN DATE> you will go into the running for a \$50 Coles voucher. Note that you do not have to agree to participate to go into the running.

Yours sincerely

Dr Kevin Runions

Project Director

Child Health Promotion Research Centre

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Professor Donna Cross

Executive Director

Child Health Promotion Research

Centre

Edith Cowan University, Churchlands Campus Pearson St, Churchlands WA 6018

# Childhood Aggression Prevention—CAP Project



Dear Parent/Guardian of <SCHOOL NAME> Pre-Primary student

Childhood Aggression Prevention

If you GIVE PERMISSION for your child's teacher to complete two surveys and to complete two brief surveys yourself, <u>please tick the appropriate box</u> below, complete the other details, and return it to your child's teacher by <a href="RETURN DATE">RETURN DATE</a>. You may withdraw consent to participate in the CAP Project at any time, without prejudice.

If you DO NOT want to be involved in the CAP Project, please tick the appropriate box below and return it to your child's teacher by <RETURN DATE>.

oject and would like to help out as outlined
Date:
ng the project and I have contacted the data about the project. I have had my
2
(your son/daughter's e CAP Project and I do not want to take p
Pri .
Date:

Please return the completed consent form to your child's teacher by <RETURN DATE>.





ECU EDITH COWAN

Healthway. Healthy WA.

Permission to conduct this study in Government schools has been obtained from the Department of Education and Training. This study has been approved by the Edith Cowan University Human Research Ethics Committee. If you have any concerns or complaints about the research project and wish to contact an independent person you may ring the Edith Cowan University Research Ethics Officer on 6304 2170.

Appendix D: Teacher Assessment.

Note: This is taken from the HREC approved "06-48 HALL Child-centred Environments to Limit Early Aggression (CELEA) Intervention Trial, of which my supervisor, Dr Runions, is Project Director.



## Child Assessment - Teacher Form (test) 2007

#### Dear Teacher

Thank you for participating in the Childhood Aggression Prevention (CAP) Project. We are currently examining the quality of the questions we are asking in CAP Project surveys to determine their reliability. In particular, we are looking at test-retest reliability to see the extent to which responses to the questions are stable over time.

By completing the survey you are consenting to take part in this research. You may withdraw your consent at any time, without prejudice. The information you provide will be treated as strictly confidential.

The survey will take about 12 minutes per child. Please answer all questions to the best of your knowledge and in the order they are presented.

## Please complete the survey by 8 June 2007.

Place completed surveys into the large envelope provided for collection by the CAP Project team.

Through the support of the Department of Education and Training, we will provide teacher relief payment for your time in completing these surveys. This has been discussed with your Principal.

If you have any queries about the survey or the Childhood Aggression Prevention Project, please contact Dr. Kevin Runions on 9273 8373 (email: k.runions@ecu.edu.au).

Thank you for your help.

Yours sincerely

Kevin Runions Project Director

Childhood Aggression Prevention Project Child Health Promotion Research Centre Edith Cowan University, Churchlands Campus

Pearson St., Churchlands WA 6018

Permission to conduct this study in Government Schools has been provided by the Department of Education and Training. The study has been approved by the Edith Cowan University Human Research Ethics Committee. If you have any concerns or complaints about the research project and wish to talk to an independent person, you may contact: Research Ethics Officer, Edith Cowan University,

100 Joondalup Drive, JOONDALUP WA 6027 Phone: (08) 6304 2170
Email: research ethics@ecu.edu.au







## INFORMATION ABOUT STUDENT

## The following questions ask you about the child identified on the cover page.

1. Gender of the child (please circle one number)

Male	1
Female	2

## 2. Exceptional/ Special Needs

 a. Has the child been formally identified as high need or needing special assistance due to a chronic medical, physical, or intellectually disabling condition (e.g., Autism, Cerebral Palsy, Down Syndrome)? (please circle one number)

Yes	1
No	2

b. Has an Education Assistant been appointed to support this child? (please circle one number)

Yes	1
No	2

 Has an Individual Education Plan (IEP) or Individual Behaviour Plan (IBP) been established for this child? (circle as many as apply)

Yes, an IEP has been established	1
Yes, an IBP has been established	2
No formal individual plan have been established	3

## 3. English as a Second Language (ESL) status

a. Is English the first language for this child? That is, to your knowledge, is English predominantly spoken in the child's home? (please direle one number)

Yes	1
No	2

 Does this child require additional instruction in English compared with other children in the class? (please circle one number)

Yes	1
Nο	2.

Questions 4 and 5 have been omitted. Please continue to Question 6

## 6. STUDENT'S BEHAVIOUR

The following statements relate to children's behaviour while in class or at school. We would like to ask you some questions regarding how this child has felt or acted over the past month.

Using your knowledge of the student, indicate which answer best describes the behaviour of this child. Even if this seems difficult, it is important to respond to all of the statements. If the behaviour is never manifested, or if you are unable to evaluate the behaviour, answer *never*.

Within the past month, how often would you say that the child... (please dicte one number for each statement)

		Never	Sometimes	Often
6. 1	Tried to stop a quarrel or dispute?	1	2	3
6, 2	Could not sit still, was restless, or hyperactive?	1	2	3
6. 3	Damaged or broke his/her own things?	1	2	3
6. 4	Gave up easily?	1	2	3
6. 5	Tried to help someone who had been hurt?	1	2	3
6. 6	Wanted to communicate with one of his/her parents while he/she was at school?	1	2	3
6. 7	Was shy with children he/she didn't know?	1	2	3
6.8	Stole things?		2	3
6. 9	Invited a child to join in a game?	1	2	3
6, 10	Was defiant or refused to comply with adults' requests or rules?	en e en	2	3
6. 11	Was jumpy or agitated for no reason?	1	2	3
6. 12	Without being asked to do so, admitted he/she was wrong in order to end an argument with a friend or a classmate?	1	2	3
6. 13	Seemed to be unhappy or sad?	1	2	3
6. 14	Boasted in an excessive manner?	1	2	3
6. 15	Got into fights?		2	3
6, 16	Showed little interest in activities involving other children?	<u> </u>	2	3
6. 17	Volunteered to clean up a mess that someone else had made?	1	2	3
6. 18	Encouraged other children to pick on a particular child?	1	2	3
6, 19	Was easily distracted, had trouble sticking to any activity?	1	2	3
6. 20	Showed little interest in games, outlings, or other amusing activities?	1	2	3
6. 21	Manipulated or used others?	1	2	3

Question 6 (continued)
Within the past month, how often would you say that the child...
(please drole one number for each statement)

		Never	Sometimes	Often
6. 22	Was made fun of by other children?	1	2	3
6, 23	When mad at someone, tried to get others to dislike that person?	1	2	3
6. 24	Asted without thinking?	1	2	3
6, 25	Didn't seem to feel guilty after misbehaving?	1	2	3
6. 26	Preferred to play alone rather than with other children?	1	2	3
6. 27	Engaged himself / herself in risky or dangerous activities?	1	2	3
6. 28	Was preoccupied by the idea that something bad could happen to his/her parents?	1	2	3
6. 29	Was not as happy as other children?		2	3
6. 30	Readily approached children that he/she didn't know?	1	2	3
6. 31	Avoided the company of other children?	1	2	3
6. 32	Damaged or broke things belonging to others?	1	2	3
6, 33	Reacted in an aggressive manner when teased?	. I.	2	3
6. 34	Jumped from one activity to another?	1	2	3
6, 35	Couldn't stop fidgeting?	1	2	3
6. 36	Was absent from school?	1	2	3
6. 37	Was hit or pushed by other children?	1	2	3
6. 38	Was unable to concentrate, could not pay attention for long?	1	2	3
6, 39	Was fearful or anxious?	1	2	3
6. 40	Offered to help out without being told or asked?	1	2	3
6. 41	Tried to dominate other children?	1 1	2	3
6. 42	Held a grudge for a long time towards a friend or a classmate after he/she had an argument with that child?	1	2	3
6, 43	Was unable to wait after someone promised him/her something?	1	2	- 3
6. 44	Was insensitive to other people's feelings?	1	2	3
6. 45	When mad at someone, became friends with another as revenge?	1	2	3
6. 46	Didn't change his/her behaviour after punishment?	1	2	3
6, 47	Took a long time to warm up to children he/she didn't know?	1	2	3

# Question 6 (continued) Within the past month, how often would you say that the child... (please circle one number for each statement)

		Never	Sometimes	Often
6. 48	Interrupted conversations or games of others?	1	2	3
6. 49	Was impulsive?	1	2	3
6, 50	Had no energy, was feeling tired?	- 1	2	3
6, 51	Told lies or cheated?	1	2	3
6, 52	Reacted in an aggressive manner when contradicted?	1	2	3
3. 53	Was worried?	1	2	3
6. 54	Scared other children to get what he/she wanted?	1	2	3
6. 55	Had difficulty waiting for his/her turn in games?	1	2	3
6. 56	When somebody accidentally hurt him/her (such as bumping into him/her), he/she reacted with anger and fighting?	1	2	3
3. 57	Tended to do things on his/her own, was rather solitary?	1	2	3
6, 58	Did not keep his/her promises?	1	2	3
3. 59	When mad at someone, said bad things behind the other's back?	1	2	3
3, 60	Physically attacked people?	1	2	3
3. 61	Comforted a child who was crying or upset?	1	2	3
6. 62	Cried a lot?	1	2	3
6. 63	Committed any acts of vandalism?	1	2	3
6, 64	Clung to adults or was too dependent?	1	2	3
6. 65	Was called names by other children?	1	2	3
6, 66	Sought the company of other children?	1	2	3
3. 67	Couldn't settle down to do anything for more than a few moments?	1	2	3
3, 68	Was nervous, highly-strung or tense?	1	2	3
3. 69	Hit, bit, or kicked other children?	1	2	3
3. 70	Reacted in an aggressive manner when something was taken away from him/her?	1	2	3
3. 71	Was inattentive?	1	2	3
5, 72	Made faces or mean gestures secretly behind another child's back?	1	2	3
3. 73	Tried to make up with a child with whom he/she had an argument?	1	2	3
3, 74	Had trouble enjoying him/herself?	1	2	3
3. 75	Helped other children (friends, brother or sister) who were feeling sick?	1	2	3

## Question 6 (continued)

These questions are about the child <u>in general</u>. Please indicate if the following statements are very true, a little true, or not true for this child. If the behaviour is never manifested, or if you are unable to evaluate the behaviour, answer *not true*.

In general, this child...
(please circle one number for each statement.)

		Not True	A Little True	Very True
6, 76	Can detect if someone lies?	1	2	3
6. 77	Rarely smiles?	1	2	3
6. 78	Cannot guess the intentions of others?	1	2	3
6. 79	Feels bad for others when they are hurt?	1 1	2	3
6, 80	Easily perceives the feelings of others?	1	2	3
6. 91	Knows how to make others laugh?	1	2	3
6, 82	Says that he/she is not as good as other children?	1	2	3
6. 83	Is able to persuade others to do what he/she wants?	1	2	3
6. 84	Shares things with other children?	1	2	3

Thank you!

Please continue to the next page.

## 7. STUDENT-TEACHER RELATIONSHIP

Please reflect on the degree to which each of the following statements currently applies to your relationship with this child.

(Please circle one number for each statement.)

		Definitely does not apply	Not really	Neutral, not sure	Applies some what	Definitely applies
7. 1	l share an affectionate, warm relationship with this child.	1	2	3	4	5
7. 2	This child and I always seem to be struggling with each other.	T and	2	3	4	5
7. 3	If upset, this child will seek comfort from me.	1	2	3	4	5
7. 4	This child is uncomfortable with physical affection or touch from me.	1	2	3	4	5
7. 5	This child values his/her relationship with me.	1	2	3	4	5
7.6	When I praise this child, he/she be ams with pride.	1	2	. 3	4	5
7. 7	This child spontaneously shares information about himself/herself.	1	2	3	4	5
7.8	This child easily becomes angry with me.	1	2	3	4	5
7: 9	It is easy to be in tune with what this child is feeling.	f	2	3	4	5
7. 10	This child remains angry or is resistant after being disciplined.	1	2	3	4	5
7. 11	Dealing with this child drains my energy	l .	2	3	4	5
7. 12	When this child is in a bad mood, I know we're in for a long and difficult day.		2	3	4	5
7. 13	This child's feelings toward me can be unpredictable or can change suddenly.	ı	2	3	4	5
7.14	This child is sneaky or manipulative with me.	1	2	3	4	5
7. 15	This child openly shares his/her feelings and experiences with me.	1	2	3	4	5

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## 8. TEACHER RESPONSES

Pretty much all children disobey rules or do things they are not supposed to. The following questions refer to things that this child has done and to the way that you have reacted over the past month.

In the past month, when this child broke the rules or did things that he/she was not supposed to, how often did you... (please circle one number for each statement)

		Never	Rarely	Some times	Often	Always	Child did not show relevant behaviours
8. 1	Raise your voice or yell at him/her?	1	2	3	4	5	6
8. 2	Calmly discuss the problem with the child?	1	2	3	4	5	6
8. 3	Describe alternative ways of behaving that are acceptable with the child?	(	2	3	4	5	8
8. 4	Take away privileges?	1	2	3	4	5	6
8. 5	Demonstrate to the child the behaviour you expect?	1	2	3	4	5	6
8. 6	Put him/her aside from other students?	1	2	3	4	5	6

## Question 8 (continued)

In the past month, when this child obeyed the rules or did the things that he/she was supposed to do, how often did you...

(please circle one number for each statement)

		Never	Rarely	Some times	Often	Always
8. 7	Say that you were proud of him/her?	1	. 2	3	4	5
8. 8	Provide a small material reward for the behaviour?	1	2	3	4 12	5
8. 9	Thank him/her for the behaviour?	1	2	. 3	4	5
8. 10	Praise him/her for the behaviour?	1	2	3	4	5
8. 11	Draw the child's behaviour to the attention of class?	1	2	3	4	5
8. 12	Provide a token or voucher that went toward earning a reward?		2	3	4	5

## Question 9 has been omitted. Please continue to question 10

## 10. TEACHER'S SOCIAL COMPETENCE RATINGS

For this child, please indicate what you feel to be this child's actual tendencies in response to each question, in your opinion. Using the scale on the right, please indicate the degree to which the statement is "never true", "rarely true", "sometimes true", or "often true". For each item, please circle the number corresponding to the single best response.

		Never True	Rarely True	Sometimes True	Often True
10.1	This child finds it hard to make friends.	1	2	3	4
10.2	This child usually comforts others who are hurt or upset.	1	2	3	4
10.3	This child often feels sorry for others who are less fortunate.	1	2	3	4
10.4	This child does not usually feel sympathy for others.	1	2	3	4
10.5	This child usually feels sympathy for others.	1	2	3	4
10.6	This child is popular with other his/her age.	1	2	3	4
10.7	This child usually feels sorry for other children who are being teased.	1	2	3	4
10.8	This child has a lot of friends.	1	2	3	4
10.9	This child rarely feels sympathy for other children who are upset or sad.	1	2	3	4

11.	Date of	Completion:	Dav	Month	Year	
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Thank you for taking the time to complete this survey. Your participation in this research is valued.

## What next?

 Place the surveys in the envelope provided. These will be collected by the CAP Project team.



Childhood Aggression Prevention

Appendix E: Parent Assessment.

Note: This is taken from the HREC approved "06-48 HALL Child-centred Environments to Limit Early Aggression (CELEA) Intervention Trial, of which my supervisor, Dr Runions, is Project Director.



# Confidential Survey

Child Assessment - Parent Form (test) 2007

#### Dear Parent/Guardian.

Thank you for participating in the Childhood Aggression Prevention (CAP) Project. We are currently examining the quality of the questions we use in CAP Project surveys to determine their reliability. In particular, we are looking at test-retest reliability, to see the extent to which responses to questions are stable over time.

The survey will take about 10 minutes. Please answer all questions to the best of your knowledge and in the order they are presented.

After completing the survey, please place it back in the envelope in which it was sent and seal it. (If you have misplaced the CAP Project envelope, please ensure that it is returned in a sealed envelope.) Then return it to your child's teacher.

## Please complete and return the survey by Friday, 8 June, 2007.

If you have any questions about the survey or would like to talk to someone about the CAP Project, please contact Dr. Kevin Runions on 9273 8373 (email: k.runions@ecu.edu.au).

Thank you for your help.

Yours sincerely

Kevin Runions Project Director

Childhood Aggression Prevention Project Child Health Promotion Research Centre Edith Cowan University, Churchlands Campus

Pearson St., Churchlands WA 6018

By completing the survey you are consenting to take part in this research. You may withdraw your consent for yourself or your child at any time, without prejudice. The information you provide will be treated as strictly confidential.

Permission to conduct this study in Government Schools has been provided by the Department of Education and Training. The study has been approved by the Edith Cowan University Human Research Ethics Committee. If you have any concerns or complaints about the research project and wish to talk to an Independent person, you may contact;

Research Ethics Officer, Edith Cowan University,

100 Joundailep Drive, JOONDALUP WA 6027

Phone: (08) 6304 2170

Email: research.ethics@ecu.edu.au







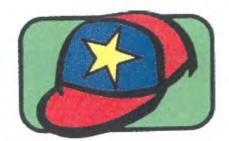
## INFORMATION ABOUT YOUR CHILD

## The following questions ask you about your child and a bit about yourself and your family.

1. Gender of the child (please circle one number)

Male	1
Female	2

Questions 2 - 6 omitted. Please continue to question 7



## 7. YOUR CHILD'S BEHAVIOUR

The following statements relate to a child's possible behaviour. We would like to ask you questions regarding how your child has felt or acted over the past month.

Using your knowledge of your child, indicate which answer, from your point of view, best describes his or her behaviours. Even if this seems difficult, it is important to respond to all of the statements. If the behaviour has never manifested, or if you are unable to evaluate the behaviour, answer *never or not true*.

Within the past month, how often would you say that your child... (please circle one number for each statement)

		Never	Sometimes	Often
7. 1	Tried to stop a quarrel or dispute?	1	2	3
7. 2	Could not sit still, was restless or hyperactive?	1	2	3
7. 3	Damaged or broke his/her own things?	1	2	3
7. 4	Gave up easily?	1	2	3
7. 5	Tried to help someone who had been hurt?	1	2	3
7. 6	Wanted to communicate with one of his/her parents while he/she was at school?	1	2	3
7. 7	Was shy with children he/she didn't know?	1	2	3
7. 8	Stole things?	1	2	3
7. 9	Invited a child to join in a game?	1	2	3
7. 10	Was defiant or refused to comply with your requests or rules?	1	2	3
7. 11	Was jumpy or agitated for no reason?	1	2	3
7. 12	Without being asked to do so, admitted he/she was wrong in order to end an argument with a friend or a classmate?	1	2	3
7. 13	Seemed to be unhappy or sad?	1	2	3
7. 14	Got into lights?	1	2	3
7. 15	Showed little interest in activities involving other children?	1	2	3
7. 16	Volunteered to clean up a mess that someone else had made?	1	2	3
7. 17	Encouraged other children to pick on a particular child?	1	2	3
7. 18	Was easily distracted, had trouble sticking to any activity?	1	2	3
7. 19	Showed little interest in games, outlings, or other amusing activities?	1	2	3
7. 20	Was made fun of by other children?	1	2	3

Question 7 (continued)
Within the past month, how often would you say that your child...
(please drole one number for each statement)

		Never	Sometimes	Often
7. 21	When mad at someone, tried to get others to dislike that person?	1	2	3
7. 22	Acted without thinking?	1	2	3
7. 23	Didn't seem to feel guilty after misbehaving?	1	2	3
7. 24	Preferred to play alone rather than with other children?	1	2	3
7. 25	Engaged himself/herself in risky or dangerous activities?	1	2	3
7. 26	Was preoccupied by the idea that something bad could happen to you (his/her parents)?	1	2	3
7. 27	Was not as happy as other children?	1	2	3
7. 28	Readily approached children that he/she didn't know?	1	2	3
7. 29	Avoided the company of other children?	1	2	3
7. 30	Damaged or broke things belonging to others?	- 1	2	3
7. 31	Reacted in an aggressive manner when teased?	1	2	3
7. 32	Jumped from one activity to another?	1	2	3
7. 33	Couldn't stop fidgeting?	1	2	3
7. 34	Felt unwell when separated from you, (e.q., had stomach aches, headaches, nausea)?	1	2	3
7. 35	Was hit or pushed by other children?	1	2	3
7. 36	Was unable to concentrate, could not pay attention for long?	1	2	3
7. 37	Was fearful or anxious?	1	2	3
7, 38	Offered to help out without being told or asked?	1	2	3
7. 39	Tried to dominate other children?	1	2	3
7. 40	Held a grudge for a long time towards a friend or another child after he/she had an argument with that child?	1	2	3
'. 41	Was unable to wait after someone promised him/her something?	1	2	3
. 42	Was insensitive to other people's feelings?	1	2	3
. 43	When mad at someone, became friends with another as revenge?	1	2	3
, 44	Didn't change his/her behaviour after punishment?	1	2	3
. 45	Took a long time to warm to children he/she didn't know?	1	2	3
<sup>7</sup> . 46	Interrupted conversations or games of others?	1	2	3

Question 7 (continued)
Within the past month, how often would you say that your child...
(please circle one number for each statement)

	of the profit files	Never	Sometimes	Often
7. 47	Was impulsive, acted without thinking?	1	2	3
7. 48	Had no energy, was feeling tired?	1	2	3
7. 49	Told lies or cheated?	1	2	3
7. 50	Reacted in an aggressive manner when contradicted?	1	2	3
7. 51	Was worried ?	1	2	3
7. 52	Scared other children to get what he/she wanted?	1	2	3
7. 53	Had difficulty waiting for his/her turn in games?	1	2	3
7. 54	When somebody accidentally hurt him/her (such as bumping into him/her), he/she reacted with anger and fighting?	1	2	3
7. 55	Tended to do things on his/her own, was rather solitary?	1	2	3
7, 56	Did not keep his/her promises?	1	2	3
7. 57	When mad at someone, said bad things behind the other's back?	1	2	3
7. 58	Physically attacked people?	1	2	3
7. 59	Comforted a child (friend, brother or sister) who was crying or upset?	1	2	3
7. 60	Cried a lot?	1	2	3
7. 61	Committed any acts of vandalism?	1	2	3
7. 62	Clung to adults or was too dependent?	1	2	3
7. 63	Was called names by other children?	1	2	3
7. 64	Sought the company of other children?	1	2	3
7. 65	Couldn't settle down to do anything for more than a few moments?	1	2	3
7. 66	Was nervous, highly-strung or tense?	1	2	3
7. 67	Hit, bit, or kicked other children?	1	2	3
7. 68	Reacted in an aggressive manner when something was taken away from him/her?	1	2	3
7. 69	Was inattentive?	1	2	3
7, 70	Made faces or mean gestures secretly behind another child's back?	1	2	3
7. 71	Tried to make up with a child with whom he/she had an argument?	1	2	3
7. 72	Had trouble enjoying him/herself?	1	2	3
7. 73	Helped other children (friends, brother or sister) who were feeling sick?	1	2	3

## Question 7 (continued)

These questions are about your child <u>in general</u>. Please indicate to what extent the following statements are true of your child. Please circle the number that goes with "Not True", "A Little True" or "Very True".

In general, my child...

(please circle one number for each statement)

		Not True	A Little True	Very True
7. 74	Can detect if someone lied?	1	2	3
7. 75	Rarely smiles?	1	2	3
7. 76	Cannot guess the intentions of others?	1	2	3
7.77	Feels bad for others when they are hurt?	1	2	3
7. 78	Easily perceives the feelings of others?	1	2	3
7. 79	Knows how to make others laugh?	1	2	3
7. 80	Says that he/she is not as good as other children?	1	2	3
7. 81	Is nice to younger children?	1	2	3
7. 82	Is able to persuade others to do what he/she wants?	1	2	3
7. 83	Shares things with other children?	1	2	3

Thank you! Please continue to the next page.



## 8. Your Parenting

Presented below are different statements about your child and your behaviour with him / her. Rate the degree to which each statement sounds like you and how you think about parenting.

(please circle one number for each statement)

		Not like me at all	Not like me	Sometimes like me, sometimes not	Like me	Very much like me
8. 1	I often tell my child that I appreciate what he/she tries out or achieves.	1	2	3	4	5
8. 2	I encourage my child to be independent.	1	2	3	4	5
8, 3	I believe that praise is more effective than punishment.	1	2	3	4	5
8.4	If my child misbehaves, I usually punish him/her.	1	2	3	4	5
8. 5	I respect my child's opinions.	1	2	3	4	5
8. 6	I believe scolding can be helpful.	1	2	3	4	5
8.7	When I am angry with my child, I let him/her know about it.	1	2	3	4	5
8. 8	My child should learn that we have rules in our family.	1	2	3	4	5
8. 9	I let my child know how disappointed I am if he/she misbehaves.	1	2	3	4	5
8. 10	I teach my child that in one way or another, punishment will find him/her when he/she is bad.	1	2	3	4	5
8. 11	I often joke with my child.	1	2	3	4	5
8. 12	I do not allow my child to question my decisions,	1	2	3	4	5
8. 13	I talk it over and reason with my child when he/she misbehaves.	1 .	2	3	4	5
8. 14	I believe that punishing is more effective than praising.	1	2	3	4	5
8. 15	My child should learn how to behave properly towards his/her parents.	1	2	3	4	5

## Question 8 continued

		Not like me at all	Not like me	Sometimes like me, sometimes not	Like me	Very much like me
8. 16	I control my child by warning him/her about the bad things that can happen to him/her.	1	2	3	4	5
8. 17	I often show my child that I love him/her.	1	2	3	4	5
8, 18	I am easygoing and relaxed with my child.	1	2	3	4	5
8, 19	It is important that children obey their parents.	1	2	3	4	5
<b>8. 20</b>	My child and I have a good relationship.	1	2	3	4	5
8, 21	I usually take my child's preferences into account in making plans for the family.	1	2	3	4	6
8. 22	A child should not have secrets from his/her parents.	1	2	3	4	5
8, 23	I believe my child should be aware of how much I have done for him or her,	1	2	3	4	G
8. 24	I encourage my child to handle problems.	1	2	3	4	5
8. 25	I let my child know how ashamed I am if he/she misbehaves.	1	. 2	3	4	5
8.26	My child should be aware of how much I sacrifice for him/her.	1	2	3	4	5
8, 27	I do not allow my child to be peevish or irritable with me.	1	2	3	4	5
8. 28	I express my affection by hugging and holding my child.	1	2	3	4	5
8, 29	I expect my child to be grateful and appreciate all advantages he/she has.	1	2	3	4	5

## Question 8 continued

## 9. PARENT'S SOCIAL COMPETENCE RATINGS

For your child, please indicate what you feel to be your child's actual tendencies in response to each question, in your opinion. Using the scale on the right, please indicate the degree to which the statement is "never true", "rarely true", "sometimes true", or "often true". For each item, please circle the number corresponding to the single best response.

		Never True	Flarely True	Sometlmes True	Often True
9.1	My child finds it hard to make friends.	1	2	3	4
9.2	My child usually comforts others who are hurt or upset.	1	2	3	4
9,3	My child often feels sorry for others who are less fortunate.	1	2	3	4
9.4	My child does not usually feel sympathy for others.	1	2	3	4
9.5	My child usually feels sympathy for others.	1	2	3	4
9.6	My child is popular with other his/her age.	1	2	3	4
9.7	My child usually feels sorry for other children who are being teased.	1	2	3	4
9.8	My child has a lot of friends.	1	2	3	4
9.9	My child rarely feels sympathy for other children who are upset or sad.	1	2	3	4

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ıv: wnen ala	you complete	this survey	rz Day	Month	Year	

Thank you for taking the time to complete this survey. Your participation in this important research is valued.

Please seal your survey in the envelope provided and return it to your child's teacher by Friday, 8 June, 2007.



Childhood Aggression Prevention

Guidelines for Contributions by Authors Journal of Child Psychology and Psychiatry

## **Notes for Contributors**

## General

Contributions from any discipline that further knowledge of the mental health and behaviour of children and adolescents are welcomed. Papers are published in English, but submissions are welcomed from any country. Contributions should be of a standard that merits presentation before an international readership.

Papers may assume either of the following forms:

- Original articles
  - These should make an original contribution to empirical knowledge, to the theoretical understanding of the subject, or to the development of clinical research and practice. Adult data are not usually accepted for publication unless they bear directly on developmental issues in childhood and adolescence. Original articles should not exceed 6000 words, including title page, abstract, references, tables, and figures; the total word count should be given on the title page of the manuscript. Limit tables and figures to 5 or fewer double-spaced manuscript pages. It is possible to submit additional tables or figures as an Appendix for an online-only version. Manuscripts exceeding the word limit will not be accepted without permission from the Editor.
- Review articles

These should survey an important area of interest within the general field. These include papers in the Annual Research Review, Research Review and Practitioner Review sections, which are usually commissioned. Word limits for review papers are stated at the time of commissioning.

## Authors' professional and ethical responsibilities

Submission of a paper to *JCPP* will be held to imply that it represents an original contribution not previously published (except in the form of an abstract or preliminary report); that it is not being considered for publication elsewhere; and that, if accepted by the *Journal*, it will not be published elsewhere in the same form, in any language, without the consent of the Editors. When submitting a manuscript, authors should state in a covering letter whether they have currently in press, submitted or in preparation any other papers that are based on the same data set, and, if so, provide details for the Editors.

## **Ethics**

Authors are reminded that the *Journal* adheres to the ethics of scientific publication as detailed in the *Ethical principles of psychologists and code of conduct* (American

Psychological Association, 1992). These principles also imply that the piecemeal, or fragmented publication of small amounts of data from the same study is not acceptable.

## Authorship

Authorship credit should be given only if substantial contribution has been made to the following:

- Conception and design, or collection, analysis and interpretation of data
- Drafting the article or revising it critically for important intellectual content, and final approval of the version to be published

The corresponding author must ensure that there is no one else who fulfils the criteria who is not included as an author. Each author is required to have participated sufficiently in the work to take public responsibility for the content.

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